Usenet Newsgroup Archive: rec.radio.amateur.homebrew

2004-06 - 2004-12

These Usenet messages were preserved as a plain-text archive. This PDF was generated by Digital Library of Amateur Radio & Communications from the source text file in 2026.

Date span: 2004-06-01 through 2004-12-31

Source text: rec.radio.amateur.homebrew.txt

Source item: https://archive.org/details/usenet-rec

Messages included in this PDF: 4,349

Message records with no readable body available in the source text: 10

Messages are presented chronologically by archived date.

Binary or encoded payloads are not printed as blocks of encoded text; a placeholder appears where such material was detected. The original source text is unchanged.

1. Re: MHW 612 "data-sheet" wanted

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-01 01:52:06 UTC
From: Bunnydawg <bunnydawg@hotmail.com>
Message-ID: <FjRuc.85867$tb4.3398074@news20.bellglobal.com>
Source record: 25733

Mak you might want to look at this page
http://www.rfparts.com/module.html
Robert
VE3 something or other

"Paul_Morphy" <nopaul_morphy2@coolgoose.com> wrote in message
news:nP9uc.91815$hH.1653321@bgtnsc04-news.ops.worldnet.att.net...
>
> "Highland Ham" <abgm0csz.kn6whyz@ntlworld.com> wrote in message
> news:Uj8uc.45$911.14@newsfe5-gui.server.ntli.net...
> > Question : Has this module linear characteristics ,hence can it be used
> for
> > SSB or is it just for AM & FM ?
>
> According to the RF Parts site, which doesn't offer much more info than
you
> provided, it's a Class C module.
>
> 73,
>
> "PM"
>
>

2. Effect of substituting ferrites with ordinary resistors in PA circuit?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-01 12:12:56 UTC
From: "Odd Erling N. Eriksen" <odderi@pvv.org>
Message-ID: <c9hrs8$3pm$1@orkan.itea.ntnu.no>
Source record: 25734

Hi,

I am currently trying to debug somebody else's UHF telemetry transmitter design. My primary concern at present is that the PA module (RF Micro-devices 2117) datasheet states that ferrites of certain values should be put in series with the bias voltage, power down control voltage and RF input.

On the PCB I am evaluating, the ferrites have been substituted with ordinary thick film SMD resistors of the same ohmic values.

My question, then, is the following: In what way is it likely that this affects the operation of the PA?

-Nonlinear operation because of noisy supply voltage?
-Excessive intermodulation due to stray RF being let into the chip?
-Anything else?

I am not very experienced in applied electronics, I am afraid - the MSc. studies I am currently undertaking focus (way to much!) on the theoretical approach. Sigh.

Thanks in advance for any qualified guesses!

--
73 de LB1LF

Odd Erling, ARK

This message transmitted on 100% recycled electrons.

3. Re: Effect of substituting ferrites with ordinary resistors in PA circuit?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-01 14:51:03 UTC
From: "Odd Erling N. Eriksen" <odderi@pvv.org>
Message-ID: <c9i54n$8on$1@orkan.itea.ntnu.no>
Source record: 25735

Odd Erling N. Eriksen wrote:

> My question, then, is the following: In what way is it likely that this
> affects the operation of the PA?

-First you post, then you start thinking...

I assume the ferrites are ordinary ferrite beads - not some special kind of resistor. The ohmic value written in the datasheet then, is the impedance at the operating frequency, whereas the DC resistance of same will be near zero ohms.

Thus, the ferrites are not as much for preventing noise from entering the PA chip, as they are to prevent noise from _leaving_ the PA.

Am I right?

--
73 de LB1LF

Odd Erling, ARK

This message transmitted on 100% recycled electrons.

4. Re: Effect of substituting ferrites with ordinary resistors in PA circuit?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-01 15:30:56 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10bp894lt303s61@corp.supernews.com>
Source record: 25736

Odd Erling N. Eriksen wrote:

> Hi,
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> design. My primary concern at present is that the PA module (RF Micro-
> devices 2117) datasheet states that ferrites of certain values should
> be put in series with the bias voltage, power down control voltage and
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> ordinary thick film SMD resistors of the same ohmic values.
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> I am not very experienced in applied electronics, I am afraid - the MSc.
> studies I am currently undertaking focus (way to much!) on the
> theoretical approach. Sigh.
>
> Thanks in advance for any qualified guesses!
>

The MSc degree doesn't train you how to _be_ an engineer, it trains you how to _learn how to be_ an engineer. Since technology is constantly changing you have to retrain yourself constantly, so this is a good thing. If they just taught you what you needed _right now_ you'd be washed out and working in sales in less than five years.

Your follow-on is correct in that the ferrites are rated for their operating frequency, and should have low DC resistance (if they're surface mount they're not actually just beads, they're wires wrapped in ferrite. The term is a holdover from through-hole where they _were_ actually beads slipped over component leads). So replacing them with resistors means that the amplifier power lines are soft instead of stiff, which could do all sorts of weird things.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

5. Fluke meters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-01 15:54:57 UTC
From: CLinT <jj88tt@SOhotmail.com>
Message-ID: <nl9pb0pq6m9lkue3rjg715uis2t84ipfkq@4ax.com>
Source record: 25737

I am considering purchasing a Fluke meter to do some
alignments & repairs here.
Can anyone reccomend a Fluke meter model or anothere brand model?

73 &
thanks for all replies,
CLinT

remove ... "SO" to reply

6. Radio Shack DSP use SCFs?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-01 16:01:35 UTC
From: Netnews Marty <marty@aa4rm.ba-watchCYB.org>
Message-ID: <8tadnXUP8a7CNSHdRVn-sw@giganews.com>
Source record: 25738
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.digital,rec.radio.amateur.boatanchors

Wonder if Radio Shack 21-543 uses switched capacitor filters as basis.

Google no direct help but does show Rad-Shack parts list that might
be plumbed for an answer.

Would like to move the CW center-freq. around the 750 hz place it's
currently located - per '95 Handbook wherein only a pot's needed with the
MF8CCNs in a design there.

Thnks for the read OMs

Marty aa4rm

PS... now that I've got ur attn, anyone know a 'filter' that hunts
out a hetrodyne freq. and nulls it automatically?

--

For direct reply, strike 3 letters to left of dot in sender address

Time flies like an arrow, fruit flies like a bananna / Groucho

7. Re: Fluke meters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-01 21:56:45 UTC
From: Kyle2 <kyle@gtx.net>
Message-ID: <FQ7vc.259$vK4.176@newsfe5-win>
Source record: 25739

A cheap digital one from Maplin or RS will be just as accurate, save loads
by not paying for a name.

"CLinT" <jj88tt@SOhotmail.com> wrote in message
news:nl9pb0pq6m9lkue3rjg715uis2t84ipfkq@4ax.com...
> I am considering purchasing a Fluke meter to do some
> alignments & repairs here.
> Can anyone reccomend a Fluke meter model or anothere brand model?
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> 73 &
> thanks for all replies,
> CLinT
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> remove ... "SO" to reply

8. Re: Phase frequency Detector

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-01 22:12:25 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <c9iv4d$mm7$1@newshost.mot.com>
Source record: 25740

"Avery Fineman" <averyfineman@aol.com> wrote in message
news:20040530193226.07368.00000167@mb-m24.aol.com...

> In article <qSquc.3943$bD4.853@nwrdny02.gnilink.net>, "W3JDR"
<joe@roccis.com>
> writes:

To Len:
> >> Not quite it. In order to derive a control voltage for the
controlled
> >> oscillator, the PFD output MUST BE A FINITE WIDTH....

> >> ...BUT THERE IS ALWAYS A PHASE OFFSET.

Len,

This is actually _not_ the case as Joe (W3JDR), says.

Summary: The charge pump drives CURRENT into the main loop filter
capacitor forming another pole (at the origin, if I recall my control theory
correctly) or _integrator_.

Detail =
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The charge pump is set up as follows. The PFD has two outputs, an UP
and DOWN. The UP output produces an output which is "active" or high (lets
make everything positive-true logic for this discussion) for a time period
which is the time from the edge of the reference to the edge of the VCO. So
that when the VCO drifts down, its edge is later and we get pulses. In
other words, we get pulses out equal to the time difference of the edges.
The DOWN is the converse.

Each output drives one half of the charge pump and as long as that
output is in its "active" state, the charge pump is providing _current_ into
the main loop filter capacitor. (lets assume that UP "pulses" means the VCO
it too low and VCO freq is proportinal to control voltage) When you get off
freq. the respective PFD output hits the rail and is in a _constant_ UP
state. Therefore, that half of the charge pump drives current into the
capacitor causing it to charge up at a rate equal to I/C. This is a simple
re-write of the capacitor formula I = C * dv/dt. This effect is another
integrator in the loop which gets you to zero phase error. As long as there
is a phase error, there will be a _CHANGE_ in control (or steering) line
voltage until you get to zero phase error and a stable control line.

If I again recall my control theory, this makes it a type 2 loop.

This does TWO things.

1) It drives the PFD pulses to zero making them as small as the logic
will allow thus

leaving the least amount of reference frequency energy to be removed
and

2) The integrator attenuates the higher freq harmonics of the reference
pulses that remain.

To be honest at this point, the loop filter will be a lag filter
which has

a finite high freq atten, but some loss none the less. Other
filtering is usually

required to further reduce the reference spurs. In communications
PLLs the fight

is between the filtering required to get the reference spurs down to
the desired

level and the classical lock time determining "loop filter". This
is because the phase of the reference spur

low pass filter starts to eat into the loop's phase margin and cause
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ringing (poorer damping factor) as you require more reference
attenuation.

= =
= =

......

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> OK, so where is the VCO control voltage coming from and how does
> it "know" how to reach the right voltage for the right frequency?

From the loop filter capacitor which stays charged when the PFD shuts up
at zero phase error.

...
> ...There will ALWAYS be a small error in any control loop...
> otherwise a control loop couldn't function to do controlling (basic
> control loop theory which so many seem to forget).

You are thinking of a type one loop and that's ok... Add the integrator
and (by theory & practice) you get zero phase error. I majored in control
theory & designed 2-way mobile PLL synthesizers. I also believe I designed
and built the first amateur, PLL synthesized 2M handheld (Motorola HT220) in
1973.

> A "charge pump" is basically a voltage-to-current converter to...

Actually, Len, the charge pumps I designed were a phase-to-*current*
converter. (Actually an edge-time-difference - to - current converter.

That is, when combined with the PFD. By itself, it was a pulse to current pulse converter. It was a current source which was turned on during the pulse. (two--one for UP & one for DOWN). Perhaps it should be called a "gated current source". During the UP or DOWN pulse, the respective current source is turned on at its full current.

> ... zero propagation delay to make such a...

If I recall the Fairchild improved 4044 used MATCHED delays in the two paths to minimize the dead zone as well as the opposite effect, overlap.

> ...The '44 is more complex...
> If there are more than two signal edges for every reference edge,
> the outputs hold at one state indicating a "way-off" ...

Yea, off frequency. So you DO know how it works by this statement. The phrase "hold at one state" _IS_ the key here in the charge-pump circuit. It will "hold the charge pump transistor on", continue to supply current (charge at a constant rate) to the cap causing the voltage to keep rising and the frequency to keep changing. When the phase error is zero, then the control line stops changing and the VCO is on freq.

> An op-amp integrator circuit functions as a sort of time-to-current-
> to-output-voltage converter ...

Ahhh! The "charge pump" does the same thing as a regular integrator increasing the loop type.

> Based on hands-on observation the PFD outputs
> ARE pulses at the reference frequency Their width
> is proportional to the integrated-averaged DC control voltage of the
> VCO when in lock.

You may have lost me here, Len. I think, in the type 1 loop you describe, the control voltage is the average-of-the-pulses (the phase error). I think you mean the "average of", not "integrated average of".

With the type 1 loop the VCO control line voltage would be the average of the phase error. So you would indeed require an error, but that's why we add the integration function in some loops.

Please note that by virtue of the VCO (having a voltage-to-frequency transfer characteristic) and the Phase detector (having a phase to voltage characteristic), there is already one built-in integration in the loop. This is because phase is the integral of frequency...or is it the other way 'round. (i always have to stop and draw a figure to state this freq/phase integral relationship...les-see... a step freq change integrates to a ramp--phase is the integral of freq, yea, that's it)

As I said earlier, I have watched the loop bounce around the dead zone - bumping up against the ends of the (zero phase) dead zone and producing mini correction charges to correct the frequency. I would often force some small current (sometimes with a reverse biased germanium diode) to stop the rumble

by forcing a small phase error.

Each integration in the loop gets you another level of "in lock"
accuracy. (i forget the official term), but

First is a frequency locked loop where, as you say here, there must be a small Frequency error to obtain the VCO voltage. Such as using a VCO with a discriminator instead of a PD. (frequency type 0)

Second is frequency lock loop with fixed phase error. (frequency type 1
phase type 0)

Third is the one with zero phase error. (frequency type 2)...etc

Each increase in type (or addition of a loop integrator) gets to a true _zero error_ for a higher order of input change. Starting with (although trivial a frequency locked loop with finite frequency error), freq, then phase, then ramping phase, then second order phase change (squared) ...but i digress...

> ...the "way-off" (phase errors larger than 180 degrees) conditions of
> the PFD outputs REMAIN in their fully-on ...

This is what Len meant, I believe, by "constant pumping". Not your usual, water-well pump metaphor, Len.

You get near the subject of "Capture Range" and "Lock Range" next. The XOR type PD has a lock range , or "pull-in Range" determined, in part, by the loop filter. More correctly by the loop bandwidth. If some of the XOR output square wave can't get through the loop filter (by being a low enough frequency) and drive the VCO toward the desired frequency, then it can't lock from far off freq. So it has a finite capture or pull-in frequency range. The PFD has an infinite pull-in (within the rails) per the above operation.

> ...However, integrated-averaged to DC, the outputs of the PFD make
> an excellent phase meter

(again I dislike the term "integrated average" here, but think "average" is what is intended) Very true (Without the charge pump). Just averaging the pulse width (phase difference). It is a phase-to-voltage converter. Then voltage makes the VCO get to freq.

> ...Ain't no "pump" pulses whatsoever at those "way-off" conditions.

Very true if you mean "pulses" with an off-time in between. Just a steady always on "pump" current at full current. This translates to "maximum ramp speed" of the VCO control line.

Joe

> >The XOR's big advantage is that it is simple, and there is no discontinuity
> >around the phase lock point (as there is in the PFD), but it does not

lock
> >up readily in the face of frequency errors.

You should say; "in the face of _large_ frequency errors".... the
"Capture Range" problem I mentioned above.

Joe:

> > The PFD's advantage is that it
> >readily locks up, even in the face of large frequency errors and it also
> >produces an easily filtered output.

Yep. Sorta' the ideal. Almost zero reference pulse energy and pull-in
range limited by the PFD rails and VCO range only.

> When you get the chance, grab a 'scope and look into the
> waveforms of a PFD as well as the control voltage. You will
> find out I'm right. No "theory" on that, just working PLL
> hardware.

As long as you have no charge pump or integrator, you are 100% correct.
Len. All the Motorola Pulsar car phones used the same charge pump for 0
phase error. This is still used now, but fractional N methods allow small
steps in freq (~5 kc) with high reference frequencies (~2 Mc) at the expense
of more logic.

If I confused who said what, I apologize.
--
Steve N, K,9;d, c. i My email has no u's.

9. Re: Phase frequency Detector

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-02 00:44:21 UTC
From: W3JDR <joe@roccis.com>
Message-ID: <Fp9vc.12238$bD4.5161@nwrdny02.gnilink.net>
Source record: 25741

Steve,

Good job. I concur 100%.

I quickly gave up on arguing this as it became clear to me that the number of words expended was increasing exponentially with the length of the thread. Arguing with some people is like surfing the web...you send a few bytes up and megabytes come back at you. I don't have the time or energy to play that game.

Right is right, and wrong is often long-winded.

Thanks for the support.

Joe
W3JDR

"Steve Nosko" <suteuve.nosukowicuz@moutouroula.com> wrote in message news:c9iv4d$mm7$1@newshost.mot.com...
> "Avery Fineman" <averyfineman@aol.com> wrote in message
> news:20040530193226.07368.00000167@mb-m24.aol.com...
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> > In article <qSquc.3943$bD4.853@nwrdny02.gnilink.net>, "W3JDR"
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> frequency) and drive the VCO toward the desired frequency, then it can't
> lock from far off freq. So it has a finite capture or pull-in frequency
> range. The PFD has an infinite pull-in (within the rails) per the above
> operation.
>
>
>
>
>
> > ...However, integrated-averaged to DC, the outputs of the PFD make
> > an excellent phase meter .
>
>
>
> (again I dislike the term "integrated average" here, but think
"average"
> is what is intended) Very true (Without the charge pump). Just averaging
> the pulse width (phase difference). It is a phase-to-voltage converter.
> Then voltage makes the VCO get to freq.
>
>
> > ...Ain't no "pump" pulses whatsoever at those "way-off" conditions.
>
>
>
> Very true if you mean "pulses" with an off-time in between. Just a
> steady always on "pump" current at full current. This translates to
> "maximum ramp speed" of the VCO control line.
>
>
> Joe
>
> > >The XOR's big advantage is that it is simple, and there is no
> discontinuity
> > >around the phase lock point (as there is in the PFD), but it does not
> lock
> > >up readily in the face of frequency errors.
>
>
>
> You should say; "in the face of _large_ frequency errors".... the
> "Capture Range" problem I mentioned above.
>
>
>

> Joe:
>
> > > The PFD's advantage is that it
> > >readily locks up, even in the face of large frequency errors and it
also
> > >produces an easily filtered output.
>
>
>
> Yep. Sorta' the ideal. Almost zero reference pulse energy and pull-in
> range limited by the PFD rails and VCO range only.
>
>
> > When you get the chance, grab a 'scope and look into the
> > waveforms of a PFD as well as the control voltage. You will
> > find out I'm right. No "theory" on that, just working PLL
> > hardware.
>
>
>
> As long as you have no charge pump or integrator, you are 100%
correct.
> Len. All the Motorola Pulsar car phones used the same charge pump for 0
> phase error. This is still used now, but fractional N methods allow small
> steps in freq (~5 kc) with high reference frequencies (~2 Mc) at the
expense
> of more logic.
>
>
>
> If I confused who said what, I apologize.
> --
> Steve N, K,9;d, c. i My email has no u's.
>
>

10. Re: An easy to build SSB transceiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-02 05:37:01 UTC
From: n2cqr@clix.pt
Message-ID: <97f305da.0406012137.3feec386@posting.google.com>
Source record: 25742

Another FB rig from Farhan! Seeing the new rig perched atop
"Experimental Methods in RF Design" convinced me to buy the book.

My favorite line from Farhan's description of the rig:

"This transceiver was designed during a six hour flight from Europe
with paper, pencil and the basic calculator built into my cell phone.
It was soldered in three sittings over three days. Very little went
wrong during the construction."

73 de Bill
M0HBR N2CQR CU2JL
http://planeta.clix.pt/n2cqr

11. LSB problems with IC706MKII

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-02 14:32:28 UTC
From: chafik.philo@eudoramail.com
Message-ID: <cacbc942.0406020632.196e8ca4@posting.google.com>
Source record: 25743
Cross-posted to:
rec.radio.amateur.equipment,alt.ham-radio.hf,rec.radio.swap,rec.radio.amateur.homebrew,rec.radio.amateur.misc

Hello
I still have the problem with my IC-706MKII in LSB mode:
On all bands,I hardly get half output power on LSB, while on the
contrary ,
I get all available output power on USB.
About the modulation: the lower frequencies of my
voice are cut off, which produces bad modulation.
On recieve:
On LSB,the signal level is not as strong as on USB,
and some frequency components of the audio are
cut off;
the same symptoms appear when recieving Brodcast stations
(AM) on LSB.
Fortunatly,I can fix this annoying problem by rotating the IF shift
knob counterclockwise(about +800 or 1000HZ), so the the recieved
signal's level geos better
along with the audio quality.
So 1- I am looking for a way to fix this problem while transmitting.
I dont know if the LSB's BFO is off frequency, or
that the FI4 filter (which select the wanted SSB) is not realy
centered on 9.011.5 MHZ.
IF the first assumption is true , is there any way to change the
BFO frequency while
transmitting on LSB?
Yes, there is a menu in setup configuration (Q4) where one can
shift
carrier frequency (BFO) by +- 200Hz. But this is not enough.
2-
The Service Manual states the following:

****
IF SHIFT CIRCUIT:
==========
" The IF shift circuit shifts the center frequency of IF signals to
electronically shift the center frequency.
The IF shift circuit shifts the 1st LO and BFO within ï¿½1.2 kHz
in SSB/CW/RTTY modes or ï¿½250 Hz in CW-N/RTTY-N
modes. As a result, the 2nd IF (also 1st IF) is shifted from
the center frequency of the 2nd IF filter (FI4, FI5 or
optional IF filters). This means 2nd IF signals do not pass
through the center of the 2nd IF filter. Therefore, the higher
or lower frequency components of the IF are cut out. Since
the BFO frequency is also shifted the same value as the 1st

IF, frequency is corrected at the detector.
In the IC-706MKII, the 1st LO frequency is shifted to change the 2nd IF because a fixed 2nd LO frequency (60 MHz) is used. The 1st IF filter (FI1) and crystal filter (FI3) have 15 kHz pass-band widths, and do not affect IF shift operation.
....

BALANCED MODULATOR:
==========
Microphone signals from the AF selector switch (IC23) are applied to the balanced modulator (IC17, pin 6). The BFO signal from the PLL unit is applied to IC17 (pin 8) as a carrier signal.
IC17 is a double balanced mixer IC and outputs a double side band (DSB) signal with ï¿½40 dB of carrier suppression. R191 and R193 adjust the balanced level of IC1041 for maximum carrier suppression. The resulting signal passes through a 9 MHz IF filter (FI4 in SSB/CW/RTTY modes) to suppress unwanted side-band signals.
....

3-3-3 2ND LO AND REFERENCE OSCILLATOR CIRCUITS:
==========
The reference oscillator (X1, Q14) generates a 30.0 MHz frequency used for the 1st LO and BFO circuits as a system clock and for the 2nd LO signal.
....

3-3-4 BFO CIRCUIT:
==========
The DDS IC (IC12) generates a 10-bit digital signal. The signal is converted into an analog wave signal at the D/A converter (R116ï¿½R135). The analog wave is passed through the high-pass filter and low-pass filter. The 9 MHz BFO signal is then applied to the MAIN board via the "BFO" signal line
....

BFO FREQUENCY:
==========
RX BFO/3rd LO
TX BFO/FM PLL ref.
frequency [MHz]
frequency [MHz]
==========
==========

USB 9.0130
9.0130
LSB 9.0100
9.0100

CW 9.0106
9.0106
(ï¿½CW pitch frequency)
(ï¿½CW pitch frequency)

RTTY 9.008375 (2125 Hz tone)
9.0105 (MARK)
9.008885 (1615 Hz tone)

AM No output
9.0100

FM 9.4665 (3rd LO)
9.0115 (PLL ref.)
FM nar. 9.4650 (3rd LO)
9.0100 (PLL ref.)

IF shift: Center
RTTY: Normal polarity
****
****

Any input would be helpful. Thanks in advance.
Chafik CN8JV

12. Re: LSB problems with IC706MKII

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-02 15:12:26 UTC
From: Doug Smith W9WI <w9wi@invalid.invalid>
Message-ID: <40BDEE54.1090806@invalid.invalid>
Source record: 25744
Cross-posted to:
rec.radio.amateur.equipment,alt.ham-radio.hf,rec.radio.swap,rec.radio.amateur.homebrew,rec.radio.amateur.misc

chafik CN8JV wrote:
> On all bands,I hardly get half output power on LSB, while on the
> contrary ,
> I get all available output power on USB.
> About the modulation: the lower frequencies of my
> voice are cut off, which produces bad modulation.
> On recieve:
> On LSB,the signal level is not as strong as on USB,
> and some frequency components of the audio are
> cut off;
> the same symptoms appear when recieving Brodcast stations
> (AM) on LSB.
> Fortunatly,I can fix this annoying problem by rotating the IF shift
> knob counterclockwise(about +800 or 1000HZ), so the the recieved
> signal's level geos better
> along with the audio quality.
...
> I dont know if the LSB's BFO is off frequency, or
> that the FI4 filter (which select the wanted SSB) is not realy
> centered on 9.011.5 MHZ.

I think the first is true - the LSB BFO is off-frequency. If the filter
was not really centered on 9011.5 then USB would have problems too.

I think you have a broken crystal. (I don't have a 706 so I can't tell
you *which* crystal) I don't think any alignment problem can cause it
to be that far off-frequency.
--
Doug Smith W9WI
Pleasant View (Nashville), TN EM66
http://www.w9wi.com

13. Re: Fluke meters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-02 15:15:29 UTC
From: "Eike Lantzsch, ZP6CGE" <eikelan@gmx.net>
Message-ID: <slrncbrroh.9su.eikelan@ID-77364.user.uni-berlin.de>
Source record: 25745

Kyle2 wrote:
> A cheap digital one from Maplin or RS will be just as accurate, save loads
> by not paying for a name.
>
> "CLinT" <jj88tt@SOhotmail.com> wrote in message
> news:nl9pb0pq6m9lkue3rjg715uis2t84ipfkq@4ax.com...
> > I am considering purchasing a Fluke meter to do some
> > alignments & repairs here.
> > Can anyone reccomend a Fluke meter model or anothere brand model?
> >
> > 73 &
> > thanks for all replies,
> > CLinT
> >
> > remove ... "SO" to reply
>
>
I prefer a Fluke anyway. This is why:
When measuring resistances in a cabinet with a running Variable
Frequency Drive I got nothing but house numbers with the feature
rich no-name-multimeter, that I was using by then. When using
a Fluke I got correct readings. The reason: The cheap MM was
sensitive to the RFI, which the VFD generated - the Fluke was
undisturbed by the massive RFI. That was the model 77 which
is old now. But you may find a used one as a bargain.
If you want to measure with strong RF-fields present then there
is a difference and you get what you pay for. TANSTAAFL.
If you go for bench meters also konsider used Keithleys and
BBC Metrawatt.

Kind regards, Eike

14. Re: Fluke meters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-02 16:49:14 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <MPG.1b27a4e3225e00fd9896b8@news-central.giganews.com>
Source record: 25746

In article <slrncbrroh.9su.eikelan@ID-77364.user.uni-berlin.de>,
eikelan@gmx.net says...

> I prefer a Fluke anyway. This is why:
> When measuring resistances in a cabinet with a running Variable
> Frequency Drive I got nothing but house numbers with the feature
> rich no-name-multimeter, that I was using by then. When using
> a Fluke I got correct readings. The reason: The cheap MM was
> sensitive to the RFI, which the VFD generated - the Fluke was
> undisturbed by the massive RFI. That was the model 77 which
> is old now. But you may find a used one as a bargain.
> If you want to measure with strong RF-fields present then there
> is a difference and you get what you pay for. TANSTAAFL.

On the other hand, I almost reached the point of insanity with a brand-
new Fluke 65 IR thermometer awhile back, trying to measure my car's
exhaust header temperatures with it. Every time I held it at the
(extremely awkward) position and orientation needed to aim the laser at
any of the exhaust ports, it would shut itself off.

The only thing that stopped me from sending it back to Circuit
Specialists for a refund was the fact that it would *only* shut off when
used under the hood of the car. I could never reproduce the problem
anywhere else around the house.

The problem turned out to be EMI from the Electromotive HPV aftermarket
ignition system. (After turning the ignition off, the thermometer
stopped shutting down.) Caveat mensor.

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam
---

15. Re: Fluke meters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-02 18:41:02 UTC
From: James Horn <jimhorn@svn.net>
Message-ID: <10bs7pupnsjodc0@corp.supernews.com>
Source record: 25747

Fluke's DMMs do cost much more than generic ones. They guarantee accuracy that the others can't touch. I've always been amused that Radio Shack and many other inexpensive DMMs don't publish accuracy specifications.

If you want something for relative measurements (peaking, etc) and hobby use, you have a wider field available. If you use it for a living and it *has* to work - well, my Fluke 87 has served *me* wonderfully well. But modern IC technology has certainly made a lot of capability available for little cost elsewhere!

Jim WB9SYN/6 (Not affiliated with Fluke)

16. Re: Calibratable Field Strength Meter?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-02 20:28:47 UTC
From: k7itm@aol.com
Message-ID: <3200347.0406021228.7acf6a14@posting.google.com>
Source record: 25748

fmmck@aol.com (Fred McKenzie) wrote in message
news:<20040530192456.27551.00000193@mb-m05.aol.com>...
...
>
> Working this backwards with the sphere, 4/3 Pi R-squared divided by 8 watts
> equals the power (2.7 mW) per square meter at distance R. You can calculate
> that the minimum distance R equals 0.072 Meters, which is less than 3 inches.
> (Please don't hold any errors against me. Check it yourself!)

Since Fred put that caveat in there, this is obviously nothing against
Fred, but...

We started with 8 watts assumed to be radiated (to find the max
farfield value). Area of a sphere is 4*pi*r^2. (Volume is
(4/3)*pi*r^3.) Seems like we want to say 8 watts/(4*pi*r^2) =
.0027w/m^2, and that yields a radius of about 15.4 meters, which would
actually be a good approximation of far field for 2M wavelength.
Units analysis is always a valuable check; also useful is a quick
mental-arithmetic check: a 1 meter radius sphere has a surface area
of roughly 12 square meters, so 8 watts at 1 meter will be about 2/3
watts per square meter.

OTOH, one would hope that the defib would be considerably less
sensitive than that, else cell phones pose a significant problem.

Cheers,
Tom

17. Re: Phase frequency Detector

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-02 20:35:37 UTC
From: averyfineman@aol.com
Message-ID: <20040602163537.12940.00000179@mb-m25.aol.com>
Source record: 25749

In article <c9iv4d$mm7$1@newshost.mot.com>, "Steve Nosko"
<suteuve.nosukowicuz@moutouroula.com> writes:

>"Avery Fineman" <averyfineman@aol.com> wrote in message
>news:20040530193226.07368.00000167@mb-m24.aol.com...
>
>> In article <qSquc.3943$bD4.853@nwrdny02.gnilink.net>, "W3JDR"
><joe@roccis.com>
>> writes:
>
>To Len:
>> >> Not quite it. In order to derive a control voltage for the
>controlled
>> >> oscillator, the PFD output MUST BE A FINITE WIDTH....
>
>> >> ...BUT THERE IS ALWAYS A PHASE OFFSET.
>
> Len,
>
> This is actually _not_ the case as Joe (W3JDR), says.

Heh heh, another one of those "long days..." :-)

I'm not going into control loops per se or argue formalized "types"
here. The original thread question was from someone worried
that the "dead zone" would cause instability if built with standard
logic gates. From there on it evolved into the usual type of
non-argument wherein one individual states an "inarguable"
case about only one control loop type...and no other argument
is allowed. :-)

[I should know better after doing computer-modem communications
for two decades but any response that says "wrong on all counts"
is a sure invite to a flame-fest... :-)]

Once upon a time three decades or so ago, I sat (as the subject
whose project was under scrutiny) in a design review where the
chief engineer of the division sat in with senior staff. I was
assured that my version of a wideband limiting amplifier "would
not work." That, despite, at the moment, it was undergoing
active temp test with monitored signals applied, etc. Wanting to
keep my job, I kept silent and agreed with "wiser heads" (two of
whom were sensed as believing me but kept silent, perhaps for
the same reason). Memos were written afterwards making note
of the comments, etc., but the design continued on as devised
and became a viable part of a system. Project team got nice

congratulations afterwards, a few patent awards, etc., plus
photos of individual smiling hand-shaking with the chief. Was not
the time to rub it in that my "unworkable" design did, indeed,
work. :-)

Those who have tangible, working hardware are often put upon by
newsgroupies who say "it won't work that way!" Okay, no problem
for me. If they say it doesn't work, well, that's it. I'll just go off for
a while and let the regulars have at it...while my stuff is working as
stated. :-)

[if anyone thinks control loops are an "easy" thing describable in a
few words...well, I don't think they've been really involved with such
hardware...but that's only my opinion]

Gotta love these newsgroups! :-)

Len Anderson
retired (from regular hours) electronic engineer person

18. Re: LSB problems with IC706MKII

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-02 21:27:46 UTC
From: frencharepoo@hotmail.com
Message-ID: <c9lgp5$q6l$1@newsg4.svr.pol.co.uk>
Source record: 25750
Cross-posted to:
rec.radio.amateur.equipment,alt.ham-radio.hf,rec.radio.swap,rec.radio.amateur.homebrew,rec.radio.amateur.misc

www.erowid.org have the info
(LSD-25)
(d-lysergic acid diethylamide)
(German=Lyserg-S&#65533;ure-Diaethylamid)

19. Re: LSB problems with IC706MKII

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-02 21:29:52 UTC
From: frencharepoo@hotmail.com
Message-ID: <c9lgso$8dl$1@newsg2.svr.pol.co.uk>
Source record: 25751
Cross-posted to:
rec.radio.amateur.equipment,alt.ham-radio.hf,rec.radio.swap,rec.radio.amateur.homebrew,rec.radio.amateur.misc

Oh err,,, sorry.
You meant lower side band? Du..
back to the flowers, the pretty flowers..

20. Re: Fluke meters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-02 22:14:21 UTC
From: Ralph Mowery <rmowery@ctc.net>
Message-ID: <wvWdnV_IlYjTzCPdRVn-tA@ctc.net>
Source record: 25752

"James Horn" <jimhorn@svn.net> wrote in message
news:10bs7pupnsjodc0@corp.supernews.com...
> Fluke's DMMs do cost much more than generic ones. They guarantee accuracy
> that the others can't touch. I've always been amused that Radio Shack and
> many other inexpensive DMMs don't publish accuracy specifications.
>
> If you want something for relative measurements (peaking, etc) and hobby
> use, you have a wider field available. If you use it for a living and it
> *has* to work - well, my Fluke 87 has served *me* wonderfully well. But
> modern IC technology has certainly made a lot of capability available for
> little cost elsewhere!
>
> Jim WB9SYN/6 (Not affiliated with Fluke)

Some of the cheep meters are fine for most home use. It is when you drop
them or accidently have them set for current or ohms while measuring voltage
you will notice the differance. Then again you can buy about 10 RS meters
for what a good Fluke will cost. It sure is hard to quit working long
enough to run to RS to get another meter while on a job that depends on
having a meter.

21. Re: Phase frequency Detector

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-02 23:01:26 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <c9lmca$8av$1@newshost.mot.com>
Source record: 25754

"Avery Fineman" <averyfineman@aol.com> wrote in message
news:20040602163537.12940.00000179@mb-m25.aol.com...
> In article <c9iv4d$mm7$1@newshost.mot.com>, "Steve Nosko"
> <suteuve.nosukowicuz@moutouroula.com> writes:
> > > Len,
> > >
> > > This is actually _not_ the case as Joe (W3JDR), says.
> >
> > Heh heh, another one of those "long days..." :-)

Sorry. Wasn't trying to even get some smoldering embers, Len. My
purpose was simply to report that the charge pump concept changes the loop
operation from what you had been describing to what Joe had been describing.
I, indeed, did jump into this somewhere in the middle as, thinking back
now, I don't recall having read the OP... Typical, eh?

> I'm not going into control loops per se or argue formalized "types"
> here.

Yes, as I was typing my 'type stuff' , I was also thinking..."Gee, this
is a typical go-off-and get-into-areas/detail-not-required-by-the-original
(as I thought it was) subject.

>... "inarguable" case......and no other argument is allowed. :-)

Yea. I didn't care for the strong wording Joe used. Joe's description was
in line with my experience, just his delivery...well. Sorry Joe. I hope I
didn't say something to that effect...

> ... Was not
> the time to rub it in that my "unworkable" design did, indeed,
> work. :-)

But must have been hard to resist...

>
> [if anyone thinks control loops are an "easy" thing describable in a
> few words...well, I don't think they've been really involved with such
> hardware...but that's only my opinion]

My standard saying in control theory was something to the effect that
you had to put your normal fundamental sense about what is going on in
electronic theory in your back pocket.
I've spent months fighting spurs (well one anyway--I'm not that
bad--besedes it was early in my career), with everything filtered
imaginable, just to cut some ground plating in desparation to solve the
problem...

Still an Engineer and still cant spel, 73 & have a shorter day, Steve K 9 D C I

22. Re: Fluke meters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-02 23:16:33 UTC
From: tdonaly@aol.com
Message-ID: <20040602191633.05486.00000367@mb-m17.aol.com>
Source record: 25753

James Horn wrote,
>
>Fluke's DMMs do cost much more than generic ones. They guarantee accuracy
>that the others can't touch. I've always been amused that Radio Shack and
>many other inexpensive DMMs don't publish accuracy specifications.
>

Actually, RS does specify the accuracy of at least one multimeter in
the manual for that meter: the RS digital multimeter PN 22-812. I sure
wouldn't depend on a Radio Shack multimeter in a work environment, though.
The ruggedness just isn't there.
73,
Tom Donaly, KA6RUH

23. various qrp projects

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-03 01:42:16 UTC
From: nightowls627@aol.comnojunk
Message-ID: <20040602214216.02246.00000371@mb-m28.aol.com>
Source record: 25755

Hello to all!! I am beginning the qrp cw journey and would like to know where to begin. I have the rigs and have built a rockmite 20 but need to find resources for things like qrp swr meter. Is there a group and magazine or other things that support the qrper?

Thanks

73
Greg
ki4bbl@arrl.net

24. Re: Fluke meters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-03 01:45:50 UTC
From: Ken Scharf <wa2mzeNOTTHIS@bellsouth.net>
Message-ID: <tpvvc.1690$F2.1286@bignews6.bellsouth.net>
Source record: 25756

Kyle2 wrote:
> A cheap digital one from Maplin or RS will be just as accurate, save loads
> by not paying for a name.
>
> "CLinT" <jj88tt@SOhotmail.com> wrote in message
> news:nl9pb0pq6m9lkue3rjg715uis2t84ipfkq@4ax.com...
>
>>I am considering purchasing a Fluke meter to do some
>>alignments & repairs here.
>>Can anyone reccomend a Fluke meter model or anothere brand model?
>>
>>73 &
>>thanks for all replies,
>>CLinT
>>
>>remove ... "SO" to reply
>
>
>
I have a 'Heath by Fluke' model SM-77 which
works very well for me. It's not a true RMS
meter, which might be a problem for some though.
The newer models also measure capacitance and
frequency, but if all you want is a DMM this
one is fine. Fluke still makes this model,
under their own model number. (It's the
familiar narrow, tall meter with the 8 position
knob to the left side and 4 digit display).

I did manage to blow the low current fuse in the
meter (guess what, it comes with a spare fuse,
inside!). The 9 volt battery lasts forever
(think I've changed it twice in 20 years,
and one time was because I left the meter on
for a week straight!).

25. Re: various qrp projects

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-03 03:08:10 UTC
From: JOE <AbdulHATESallah@hotmail.com>
Message-ID: <2872d044078909dc2d6dca41828eb26f@news.meganetnews.com>
Source record: 25758

Good grief. Have you even TRIED looking? Type 'qrp' into
google and see what you find. Plan on lots of time sorting
through the THOUSANDS of useful links.

You'll get a lot more out of your 'journey' if you take some time
to put a little effort into it.

"Greg Doughty" <nightowls627@aol.comnojunk> wrote in message
news:20040602214216.02246.00000371@mb-m28.aol.com...
> Hello to all!! I am beginning the qrp cw journey and would like to know
where
> to begin. I have the rigs and have built a rockmite 20 but need to find
> resources for things like qrp swr meter. Is there a group and magazine or
> other things that support the qrper?
>
> Thanks
>
> 73
> Greg
> ki4bbl@arrl.net

26. Re: Fluke meters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-03 03:17:43 UTC
From: "Dr. Anton T. Squeegee" <SpammersArePondScum@dev.null>
Message-ID: <MPG.1b26d61a4e06a68b989722@192.168.42.131>
Source record: 25757

In article <FQ7vc.259$vK4.176@newsfe5-win>, kyle@gtx.net says...

<Top-posting corrected -- Please don't top-post. See this link for
the reason why: http://www.html-faq.com/etiquette/?toppost

> "CLinT" <jj88tt@SOhotmail.com> wrote in message
> news:nl9pb0pq6m9lkue3rjg715uis2t84ipfkq@4ax.com...
> > I am considering purchasing a Fluke meter to do some
> > alignments & repairs here.
> > Can anyone reccomend a Fluke meter model or anothere brand model?
> >
> > 73 &
> > thanks for all replies,
> > CLinT
> >
> > remove ... "SO" to reply

> A cheap digital one from Maplin or RS will be just as accurate, save loads
> by not paying for a name.

Perhaps. However, one thing that I've learned, after being in the
electronics/RF field for 25+ years, is that it is not wise to cut
corners on your test gear. It should be looked on as an investment as
opposed to an expense.

Fluke multimeters are, IMO, well worth the higher price for the
warranty, support, and how long they last.

Case in point: I bought an original model 77 back in 1984. Here it
is, 20 years later, and the thing is still with me and still working
great. I've checked its calibration three times in the entire time I've
had it (most recently, about two years ago), and it has always been
right on. I've gone through perhaps four batteries in that time as well.

Find me the "cheap one from Maplin or RS" that will compare to
that kind of durability and reliability, and I will cheerfully STFU.

Now, as to recommendations: Pretty much anything in the 20, 70, or
80 series will do nicely. Choose what you want based on what feature set
you want. Top of the line is, as I recall, the 87 series.

Be prepared to spend between $150-$400, depending on which model
you settle on.

Happy hunting.

--
Dr. Anton T. Squeegee, Director, Dutch Surrealist Plumbing Institute.

(Known to some as Bruce Lane, ARS KC7GR,
kyrrin (a/t) bluefeathertech[d=o=t]calm -- www.bluefeathertech.com
"If Salvador Dali had owned a computer, would it have been equipped
with surreal ports?"

27. Re: LSB problems with IC706MKII

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-03 03:44:31 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0406021944.c3cd426@posting.google.com>
Source record: 25759
Cross-posted to:
rec.radio.amateur.equipment,alt.ham-radio.hf,rec.radio.swap,rec.radio.amateur.homebrew,rec.radio.amateur.misc

chafik.philo@eudoramail.com (chafik CN8JV) wrote in message
news:<cacbc942.0406020632.196e8ca4@posting.google.com>...
> Hello
> I still have the problem with my IC-706MKII in LSB mode:
> On all bands,I hardly get half output power on LSB, while on the
> contrary ,
> I get all available output power on USB.
> About the modulation: the lower frequencies of my
> voice are cut off, which produces bad modulation.
> On recieve:
> On LSB,the signal level is not as strong as on USB,
> and some frequency components of the audio are
> cut off;
> the same symptoms appear when recieving Brodcast stations
> (AM) on LSB.
> Fortunatly,I can fix this annoying problem by rotating the IF shift
> knob counterclockwise(about +800 or 1000HZ), so the the recieved
> signal's level geos better
> along with the audio quality.
> So 1- I am looking for a way to fix this problem while transmitting.

What I would do first is a filter calibration. It's possible this will
fix your problem if you are lucky.
#1 You will need to enter the adjustment set mode. To do so, turn off
the radio.
Stick a dummy 3.5 mm "same size as headphone jack" plug into the
remote jack in the rear of the radio. "center pin is connected to
ground". Then, push the two left buttons, "p.amp/att" and "tuner/call"
in at the same time. While these two buttons are pressed at the same
time, turn on the power switch. The radio should crank up in the "set"
mode. Then, push F3 "TX" to enter the transmit set mode. Push up/down,
or maybe also the tuning or memory knob, to scroll through the
settings until you get to filter calibration. The display should show,
"GO FILTER CAL" when you get to the right one.
Have the radio connected to a dummy load, or matched antenna.
Push and hold menu "GO" to start the calibration. The radio will
transmit for a few seconds while it is calibrating the filters. It's
all automatic. This *should* cure your lopsided filter/carrier
oscillator problem. BTW, I don't know if it has any effect, but I
would re-center the IF shift to neutral before doing this adjustment.
When done, push F1 to exit the setup menu. It may turn the radio off,
but I forgot...If not, turn the radio off, take out the dummy plug,
and turn the radio back on normally. If you are lucky, it will be

fixed. I've done this on mine when I noticed the filters were getting a little lopsided. When the filter setup is correct, you should be able to listen to "white" band noise, switching between USB, or LSB, and notice no real change in pitch. "IF shift nuetral".
These radios do automatically what we used to have to do manually as part of the alignment. Do a search, and d/l the complete 706mk2g service manual for complete instructions on this, and all the other setup's...I wouldn't mess with any other than the filter setup. If it ain't broke in other areas, don't fix it...:/ MK

28. Re: Looking for spare parts for HP 8558B Spectrum Analyzer

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-03 04:22:16 UTC
From: Pete KE9OA <p.gianak@worldnet.att.net>
Message-ID: <YHxvc.24603$_k3.616927@bgtnsc05-news.ops.worldnet.att.net>
Source record: 25760
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

Which mainframe? The 853 or the 182T?

Pete

"�ke Stenberg" <noemail@noemail.se> wrote in message
news:c99to1$h3e$1@hudsucker.umdac.umu.se...
> Hi,
>
> I'm looking for spare parts for a HP 8558B Spectrum Analyzer. I need the
> following: complete reference level knob, fine tuning knob, and front
screen
> for CRT.
>
> 73 de �ke SM2FNI
>
>
> (Jag s�ker reservdelar till en spectrum Analyzer HP8558B. Jag beh�ver
> f�ljande: logreferens ratten och fine tuning ratten.
> Dessutom beh�ver jag frontsk�rmen p CRT r�ret.)
>
>

29. Re: various qrp projects

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-03 07:37:27 UTC
From: Leon Heller <leon_heller@hotmail.com>
Message-ID: <40bed534$0$20516$cc9e4d1f@news-text.dial.pipex.com>
Source record: 25761

"Greg Doughty" <nightowls627@aol.comnojunk> wrote in message
news:20040602214216.02246.00000371@mb-m28.aol.com...
> Hello to all!! I am beginning the qrp cw journey and would like to know
where
> to begin. I have the rigs and have built a rockmite 20 but need to find
> resources for things like qrp swr meter. Is there a group and magazine or
> other things that support the qrper?

QRP-L and G-QRP

73, Leon

30. Re: various qrp projects

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-03 10:02:09 UTC
From: Brian <brianCUT@iquestHERE.net>
Message-ID: <BGCvc.9982$Yd3.2894@newsread3.news.atl.earthlink.net>
Source record: 25762

Greg,

In my opinion, the best QRP Group is QRP-ARCI. You can check them out at
http://www.qrparci.org

They publish a very nice quarterly magazine called the QRP Quarterly, and
unlike a lot of other club journals, it's usually published on time.

For a neat SWR meter, check out the NoGA QRP group from Northern Georgia.
http://www.nogaqrp.org/ They have a neat little SWR/PWR meter kit they
sell, or used to sell.

The QRP ARCI page has about 100 links to other QRP clubs all over the world.
You won't have a hard time finding info there.

73

"Greg Doughty" <nightowls627@aol.comnojunk> wrote in message
news:20040602214216.02246.00000371@mb-m28.aol.com...
> Hello to all!! I am beginning the qrp cw journey and would like to know
where
> to begin. I have the rigs and have built a rockmite 20 but need to find
> resources for things like qrp swr meter. Is there a group and magazine or
> other things that support the qrper?
>
> Thanks
>
> 73
> Greg
> ki4bbl@arrl.net

31. Re: Calibratable Field Strength Meter?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-03 11:08:58 UTC
From: fmmck@aol.com
Message-ID: <20040603070858.20430.00000460@mb-m07.aol.com>
Source record: 25763

<< Seems like we want to say 8 watts/(4*pi*r^2) =
.0027w/m^2, and that yields a radius of about 15.4 meters, which would
actually be a good approximation of far field for 2M wavelength. >>

Tom-

You caught me!

I don't have a calculator handy, but it seems to me that the correct formula
yields an even lower power when spread over three times the area.

73, Fred, K4DII

32. Re: various qrp projects

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-03 11:11:13 UTC
From: xpyttl <xpyttl_NOSPAM@earthling.net>
Message-ID: <10buif6ldlr3h4b@corp.supernews.com>
Source record: 25766

"Greg Doughty" <nightowls627@aol.comnojunk> wrote in message
news:20040602214216.02246.00000371@mb-m28.aol.com...
> Is there a group and magazine or
> other things that support the qrper?

Greg

The online group is QRP-L at qth.net. Be aware that this is a pretty busy reflector, however. Thereis also a QRP reflector at qth which is very low key.

Someone mentioned ARCI, which is a very good organization. There are two other big QRP groups. The American QRP club (www.amqrp.org) tends to be a little more focused on homebrewing than ARCI. AmQRP is more like an association of clubs. They were formed by the merger of NorCal and NJQRP, but work with a half-dozen regional clubs to produce kits and conferences. Their magazine, Homebrewer, is a little better than QQ in my opinion (maybe because I'm more into melting solder). The G-QRP club is another great organization. They publish a magazine called Sprat which has been around forever it seems. Personally, I'm not as big a fan of Sprat because they tend to use a lot of parts in their designs which are harder to get on this side of the pond, but on the other hand, if you are on the G-land side of the pond, those are probably easier to get. They have produced a number of kits, many of which are available from Kanga U.S. on this side of the pond. The DL-QRP club also has a number of kits. Theirs seem to be a little more "polished" than the G-QRP kits which are pretty different.

Besides these three biggies, there are perhaps a dozen other clubs that publish online and/or offer kits. The Flying Pigs QRP club is more about kits and contests than publications. Someone mentioned the North Georgia QRP club, which has that neat SWR/Power meter. The Arizona ScQRPions currently has a neat paddle kit. Seems like there are several others which escape me at the moment.

ARCI runs a big conference in conjunction with the Dayton hamfest every year which is a wonderful place to learn, get parts, and meet other QRPers. AmQRP supports a handful of conferences, including Atlanticon and Pacificon in the spring, Ozarkcon just passed, and Lobstercon coming up. The ScQRPions are running a conference near Flagstaff around the first of July. G-QRP runs conferences in England and Ireland, too, but they seem to be somewhat more erratic than the ones in the states. DL-QRP also runs an annual conference.

So yeah, plenty of resources, and an amazingly friendly bunch as well.

..

33. Re: various qrp projects

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-03 12:56:07 UTC
From: wk8l@yahoo.com
Message-ID: <f25f619b.0406030456.3109ab1a@posting.google.com>
Source record: 25764

Groups and Magazines - Here's two to start with:

QRP Amateur Radio Club International - QRP Quarterly Magazine
http://www.qrparci.org

American QRP Club - QRP Homebrewer Magazine
http://www.amqrp.org

73, Dan

nightowls627@aol.comnojunk (Greg Doughty) wrote in message
news:<20040602214216.02246.00000371@mb-m28.aol.com>...
> Hello to all!! I am beginning the qrp cw journey and would like to know where
> to begin. I have the rigs and have built a rockmite 20 but need to find
> resources for things like qrp swr meter. Is there a group and magazine or
> other things that support the qrper?
>
> Thanks
>
> 73
> Greg
> ki4bbl@arrl.net

34. Re: various qrp projects

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-03 13:29:10 UTC
From: nightowls627@cs.com
Message-ID: <74f89aaf.0406030529.598ef37d@posting.google.com>
Source record: 25765

Thank you for all the suggestions. The qrp groups are what I have been looking for. To one of the previous posters, I find that part of research is asking questions and what better place than a group that has experience in homebrew. I had done my research prior: google, local vhf net, hf. I was wondering if there were more obscure groups that deal with qrp and some people helped me out. I hope other hams that are interested in getiing into the fundamentals of amateur radio are not "welcomed" in the same way. As qrp is on the upswing of popularity, more and more people interested in homebrewing will be asking questions.

Thanks again for the help. One day I may be able to return the favor.

35. WTB: manuals for 2 signal tracers

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-03 16:31:22 UTC
From: aa8wl <aa8wl@comcast.net>
Message-ID: <65mdnQxq9-_PzyLdRVn-sA@comcast.com>
Source record: 25767

Looking for manuals for the following items: Heathkit IT-12 signal tracer. and Eico Model 147a sig tracer. Please reply to: aa8wl@comcast.net TNX 73' de aa8wl Sam

36. Re: various qrp projects

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-03 19:10:38 UTC
From: hikezilla@yahoo.com
Message-ID: <662db5ea.0406031110.36c5568f@posting.google.com>
Source record: 25768

Huh...I didn't realize AmQRP was still around.

Are they still doing a newsletter?

I'll go check out the site.

wk8l@yahoo.com (Dan) wrote in message
news:<f25f619b.0406030456.3109ab1a@posting.google.com>...
> Groups and Magazines - Here's two to start with:
>
> QRP Amateur Radio Club International - QRP Quarterly Magazine
> http://www.qrparci.org
>
> American QRP Club - QRP Homebrewer Magazine
> http://www.amqrp.org
>
> 73, Dan

37. Re: various qrp projects

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-03 19:12:38 UTC
From: hikezilla@yahoo.com
Message-ID: <662db5ea.0406031112.29c4115a@posting.google.com>
Source record: 25769

Huh...I didn't realize AmQRP was still around.

Are they still doing a newsletter?

I'll go check out the site.

wk8l@yahoo.com (Dan) wrote in message
news:<f25f619b.0406030456.3109ab1a@posting.google.com>...
> Groups and Magazines - Here's two to start with:
>
> QRP Amateur Radio Club International - QRP Quarterly Magazine
> http://www.qrparci.org
>
> American QRP Club - QRP Homebrewer Magazine
> http://www.amqrp.org
>
> 73, Dan

38. Re: Fluke meters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-03 20:01:20 UTC
From: dougmc@frenzy.com
Message-ID: <ksLvc.53311$IY2.51608@fe1.texas.rr.com>
Source record: 25770

In article <FQ7vc.259$vK4.176@newsfe5-win>, Kyle2 <kyle@gtx.net> wrote:

| A cheap digital one from Maplin or RS will be just as accurate, save loads
| by not paying for a name.

If you're on a tight budget, these things are hard to beat --

http://www.harborfreight.com/cpi/ctaf/Category.taf?categoryid=170&pricetype=S

Yes, three bucks. They won't hold a candle to a Fluke, but for doing simple voltages or resistances, they're hard to beat. They're accurate (at least the ones I've tested) within 1 or 2%, at least for DC and AC voltage (I don't expect them to do accurate RMS readings on non sinusoidal signals, however) and resistances.

They're cheap enough that you can dedicate them to a given operation -- you need to know the voltage on your power battery all the time? No problem -- just slap one of these on it.

Personally, I own like ten of these things, scattered throughout the house and car, and a few better multi-meters for when I need them.

--
Doug McLaren, dougmc@frenzy.com
Give a man a fire and he will be warm for a day. Set a man on fire and he will be warm for the rest of his life.

39. Harry's Homebrew homepages.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-03 20:45:17 UTC
From: Harry - SM0VPO <harryvpo.nospam@hootmail.com>
Message-ID: <x5Mvc.1135$dx3.10948@newsb.telia.net>
Source record: 25771
Cross-posted to: rec.radio.amateur.homebrew,uk.radio.amateur

http://w1.859.telia.com/~u85920178/

Over 200 projects, many with photo's and most with PCB patterns (BMP 250pixels/inch), even small PDF library and homebrew messageboard.

Latest project is DIY IF cans for valves (tubes) complete with on-line calculators for the coils. Inc. Photographs.

Would be interested to hear whether anyone has any suggestions for multi-gand tuning caps (100pf or more). I have been shoving tapered PCB strips between other and it works a treat, but there must be simpler methods. Also tried sponge/PCB sandwich with bolt compressor. Also works well, but capacity limited. Ideas anyone? (Not interested in varicaps/varactor diodes. They don't work so well with 250vDC!)

BR Harry

(E-mail, remove nospam and correct the spoelling error)

40. Re: Harry's Homebrew homepages.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-03 20:58:48 UTC
From: Leon Heller <leon_heller@hotmail.com>
Message-ID: <40bf9109$0$25327$cc9e4d1f@news-text.dial.pipex.com>
Source record: 25772
Cross-posted to: rec.radio.amateur.homebrew,uk.radio.amateur

"Harry - SM0VPO" <harryvpo.nospam@hootmail.com> wrote in message
news:x5Mvc.1135$dx3.10948@newsb.telia.net...
> http://w1.859.telia.com/~u85920178/
>
> Over 200 projects, many with photo's and most with PCB patterns (BMP
> 250pixels/inch), even small PDF library and homebrew messageboard.
>
> Latest project is DIY IF cans for valves (tubes) complete with on-line
> calculators for the coils. Inc. Photographs.
>
> Would be interested to hear whether anyone has any suggestions for
> multi-gand tuning caps (100pf or more). I have been shoving tapered PCB
> strips between other and it works a treat, but there must be simpler
> methods. Also tried sponge/PCB sandwich with bolt compressor. Also works
> well, but capacity limited. Ideas anyone? (Not interested in
> varicaps/varactor diodes. They don't work so well with 250vDC!)

It might be easier to vary the inductance. Permeability tuning is getting
popular.

73, Leon

41. Re: Harry's Homebrew homepages.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-03 21:04:49 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <RnMvc.4770$B%4.4325@clgrps12>
Source record: 25773
Cross-posted to: rec.radio.amateur.homebrew,uk.radio.amateur

Thanks Harry!

Bookmarked :-)

--
Gregg
It's probably useful, even if it can't be SPICE'd
http://geek.scorpiorising.ca

42. Re: Harry's Homebrew homepages.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-03 21:06:31 UTC
From: Brian Reay <brian.reay@bigfoot.com>
Message-ID: <2i9i6qFkgp9tU1@uni-berlin.de>
Source record: 25774
Cross-posted to: rec.radio.amateur.homebrew,uk.radio.amateur

"Harry - SM0VPO" <harryvpo.nospam@hootmail.com> wrote in message
news:x5Mvc.1135$dx3.10948@newsb.telia.net...
> http://w1.859.telia.com/~u85920178/
>
> Over 200 projects, many with photo's and most with PCB patterns (BMP
> 250pixels/inch), even small PDF library and homebrew messageboard.
>
> Latest project is DIY IF cans for valves (tubes) complete with on-line
> calculators for the coils. Inc. Photographs.
>
> Would be interested to hear whether anyone has any suggestions for
> multi-gand tuning caps (100pf or more). I have been shoving tapered PCB
> strips between other and it works a treat, but there must be simpler
> methods. Also tried sponge/PCB sandwich with bolt compressor. Also works
> well, but capacity limited. Ideas anyone? (Not interested in
> varicaps/varactor diodes. They don't work so well with 250vDC!)
>

Do you want a variable or a preset? If a preset, have you thought of using
double sided PCB. One side un-etch, the other etched to give a series of
lands that reduce in area. Connect more lands to increase capacitance.

I saw the idea somewhere, so don't claim it as my own.

--
73
Brian
G8OSN
www.g8osn.org.uk
www.amateurradiotraining.org.uk for FREE training material for all UK
amateur radio licences
www.phoenixradioclub.org.uk - a RADIO club specifically for those wishing
to learn more about amateur radio

43. Re: Calibratable Field Strength Meter?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-04 00:17:10 UTC
From: fmmck@aol.com
Message-ID: <20040603201710.09837.00000467@mb-m06.aol.com>
Source record: 25775

<< Tom-

You caught me!

I don't have a calculator handy, but it seems to me that the correct formula yields an even lower power when spread over three times the area.
>>

Caught again!

I took another look at my earlier calculations and found that not only did I have the wrong formula for the area of a sphere, I had my equation upside down! I ended up with something like watts per square meter equals square meters per watt. Yes, the power is spread over a greater area, but that did not compensate for the really stupid mistake.

So, if one volt per meter equals 2.7 milliWatts per square Meter, that field strength would be generated by a five watt handheld radio at a distance of 15.4 Meters, which is about 50 Feet. This is sounding serious unless the defibrillator has a greater tolerance. I certainly hope it does, since we are often irradiated by passing mobile radios running 50 watts or so, at closer distances than 50 feet.

Lets see - 50 watts is ten dB greater, so the distance would be about 3 times as great as 5 watts, or about 150 feet for one volt per meter. Or, maybe I should just keep my mouth shut to keep from screwing up again!

73, Fred, K4DII

44. Re: Fluke meters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-04 02:18:04 UTC
From: "J. McLaughlin" <JCM@Power-Net.Net>
Message-ID: <10bvmtr1qmv0n93@corp.supernews.com>
Source record: 25776

I echo what Eike has said. I own and use an older 85 (also gave one to a son to take to University). It works in all conditions including, something especially important one would think to this group, in the presence of a lot of RF.
The low resistance range has been invaluable. The sensitive AC range allowed me with ease to tell if 240 VAC water heating elements were operating by measuring the voltage across the straps going to the elements. (Not between!) Recently, I used the capacitance feature to verify that a control line was almost certainly open at its far end (that was a long way up a hot tower).
Good tools pay! I can raise penny pinching to an art form, but I use Klein safety harnesses, HP calculator, and Fluke meter. 73 Mac N8TT
P.S. My answer to the question is to buy something in the 80 series.
--
J. Mc Laughlin - Michigan USA
Home: JCM@Power-Net.Net

"Eike Lantzsch, ZP6CGE" <eikelan@gmx.net> wrote in message news:slrncbrroh.9su.eikelan@ID-77364.user.uni-berlin.de...
> Kyle2 wrote:
> > A cheap digital one from Maplin or RS will be just as accurate, save loads
> > by not paying for a name.
> >
> > "CLinT" <jj88tt@SOhotmail.com> wrote in message
> > news:nl9pb0pq6m9lkue3rjg715uis2t84ipfkq@4ax.com...
> > > I am considering purchasing a Fluke meter to do some
> > > alignments & repairs here.
> > > Can anyone reccomend a Fluke meter model or anothere brand model?
> > >
> > > 73 &
> > > thanks for all replies,
> > > CLinT
> > >
> > > remove ... "SO" to reply
> >
> >
> I prefer a Fluke anyway. This is why:
> When measuring resistances in a cabinet with a running Variable
> Frequency Drive I got nothing but house numbers with the feature
> rich no-name-multimeter, that I was using by then. When using
> a Fluke I got correct readings. The reason: The cheap MM was
> sensitive to the RFI, which the VFD generated - the Fluke was

> undisturbed by the massive RFI. That was the model 77 which
> is old now. But you may find a used one as a bargain.
> If you want to measure with strong RF-fields present then there
> is a difference and you get what you pay for. TANSTAAFL.
> If you go for bench meters also konsider used Keithleys and
> BBC Metrawatt.
>
> Kind regards, Eike

45. Re: various qrp projects

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-04 02:38:22 UTC
From: Brian <brianCUT@iquestHERE.net>
Message-ID: <ygRvc.37056$zO3.33324@newsread2.news.atl.earthlink.net>
Source record: 25777

Visit http://www.fpqrp.com for more information on the Flying Pigs QRP Club International.

They used to publish a pretty decent monthly newsletter in PDF form, it's free.

This club is pretty laid back, they have an email reflector but be warned, it's likely to carry a lot of friendly conversation among the technical posts. However, you won't get flamed for asking a technical question...no matter how simple it may be.

They have no dues, no rules, no regular meetings...the Flying Pigs are more like a state of mind.

The Flying Pigs QRP Club International has sponsored, along with the Northern Georgia QRP Club (NoGA), the annual "Buildathon" event at FDIM during Dayton for the last three years in a row. Some very NICE homebrew devices have come from those Buildathons....freq counters, SWR/PWR meters, Freq Standards...etc

If you want a fun place to hang out and a great group of hams to hang with, join the Flying Pigs QRP Club International. We even have a club beer mug!

72

"xpyttl" <xpyttl_NOSPAM@earthling.net> wrote in message
news:10buif6ldlr3h4b@corp.supernews.com...
> "Greg Doughty" <nightowls627@aol.comnojunk> wrote in message
> news:20040602214216.02246.00000371@mb-m28.aol.com...
> > Is there a group and magazine or
> > other things that support the qrper?
>
> Greg
>
> *The* online group is QRP-L at qth.net. Be aware that this is a pretty
busy
> reflector, however. Thereis also a QRP reflector at qth which is very low
> key.
>
> Someone mentioned ARCI, which is a very good organization. There are two
> other big QRP groups. The American QRP club (www.amqrp.org) tends to be a
> little more focused on homebrewing than ARCI. AmQRP is more like an
> association of clubs. They were formed by the merger of NorCal and NJQRP,
> but work with a half-dozen regional clubs to produce kits and conferences.
> Their magazine, Homebrewer, is a little better than QQ in my opinion
(maybe

> because I'm more into melting solder). The G-QRP club is another great
> organization. They publish a magazine called Sprat which has been around
> forever it seems. Personally, I'm not as big a fan of Sprat because they
> tend to use a lot of parts in their designs which are harder to get on
this
> side of the pond, but on the other hand, if you are on the G-land side of
> the pond, those are probably easier to get. They have produced a number
of
> kits, many of which are available from Kanga U.S. on this side of the
pond.
> The DL-QRP club also has a number of kits. Theirs seem to be a little
more
> "polished" than the G-QRP kits which are pretty different.
>
> Besides these three biggies, there are perhaps a dozen other clubs that
> publish online and/or offer kits. The Flying Pigs QRP club is more about
> kits and contests than publications. Someone mentioned the North Georgia
> QRP club, which has that neat SWR/Power meter. The Arizona ScQRPions
> currently has a neat paddle kit. Seems like there are several others
which
> escape me at the moment.
>
> ARCI runs a big conference in conjunction with the Dayton hamfest every
year
> which is a wonderful place to learn, get parts, and meet other QRPers.
> AmQRP supports a handful of conferences, including Atlanticon and
Pacificon
> in the spring, Ozarkcon just passed, and Lobstercon coming up. The
> ScQRPions are running a conference near Flagstaff around the first of
July.
> G-QRP runs conferences in England and Ireland, too, but they seem to be
> somewhat more erratic than the ones in the states. DL-QRP also runs an
> annual conference.
>
> So yeah, plenty of resources, and an amazingly friendly bunch as well.
>
> ..
>
>

46. Re: Fluke meters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-04 04:36:38 UTC
From: ehsjr@bellatlantic.net
Message-ID: <q%Svc.20499$bD4.1902@nwrdny02.gnilink.net>
Source record: 25778

Doug McLaren wrote:

>In article <FQ7vc.259$vK4.176@newsfe5-win>, Kyle2 <kyle@gtx.net> wrote:
>
>| A cheap digital one from Maplin or RS will be just as accurate, save loads
>| by not paying for a name.
>
>If you're on a tight budget, these things are hard to beat --
>
> http://www.harborfreight.com/cpi/ctaf/Category.taf?categoryid=170&pricetype=S
>
>Yes, three bucks. They won't hold a candle to a Fluke, but for doing
>simple voltages or resistances, they're hard to beat. They're
>accurate (at least the ones I've tested) within 1 or 2%, at least for
>DC and AC voltage (I don't expect them to do accurate RMS readings on
>non sinusoidal signals, however) and resistances.
>
>They're cheap enough that you can dedicate them to a given operation
>-- you need to know the voltage on your power battery all the time?
>No problem -- just slap one of these on it.
>
>Personally, I own like ten of these things, scattered throughout the
>house and car, and a few better multi-meters for when I need them.
>
>
>
Right! They even come with the 9v battery included and they have a
transistor
test function, to boot. When you spend 3 dollars on a DMM, you're not
looking
for precision results. And you don't need a precision meter for most
measurements.
As a secondary meter, these 3 dollar things cannot be beat. When I
needed to
do 6 simultaneous measurements (a DC-DC converter I made with dual
outputs -
I needed to measure voltage and current on the input, and voltage and
current on
both outputs) I bought 4 of them. They were more accurate than I
thought they
would be - and more accurate than I needed.

47. Re: Harry's Homebrew homepages.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-04 08:49:42 UTC
From: Steve <no-one@here.now>
Message-ID: <40c05209@news.greennet.net>
Source record: 25779
Cross-posted to: rec.radio.amateur.homebrew,uk.radio.amateur

Harry - SM0VPO wrote:

> http://w1.859.telia.com/~u85920178/
>
> Over 200 projects, many with photo's and most with PCB patterns (BMP
> 250pixels/inch), even small PDF library and homebrew messageboard.
>
> Latest project is DIY IF cans for valves (tubes) complete with on-line
> calculators for the coils. Inc. Photographs.

Don't forget the non-electronics homebrew pages as well!

Steve

48. Re: Radio Shack DSP use SCFs?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-04 11:23:30 UTC
From: Netnews Marty <marty@aa4rm.ba-watchCYB.org>
Message-ID: <Y4udnTbvFMAvxl3d4p2dnA@giganews.com>
Source record: 25780
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew,rec.radio.amateur.digital

Edward Knobloch <alias@nowhere.net> wrote:
> Netnews Marty aa4rm wrote:

>>
>> PS... now that I've got ur attn, anyone know a 'filter' that hunts
>> out a hetrodyne freq. and nulls it automatically?
>>

> Hi, Marty

> I'm the happy owner of a "Magic Notch" filter, which goes
> between the receiver audio output and speaker. It has a
> built-in 2 Watt audio amplifier, and requires a 12 VDC wall wart.

Tnx Ed, et al.

Duly noted are the "magic notch,' the Datong FL1/3, & the "monitor's pal"
hetrodyne hunter-killers.

Tnx

But, still haven't got an answer about the Rad-Shark's guts & possible
mod. But perhaps that's a futile quest.

Why do I ask at all? Well to replace the lost adjustable-peak audio
filter in a Navy RAL regen. That's why.

Again, tnx

Marty

49. WTB: Manuals for 2 signal tracers

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-04 13:48:28 UTC
From: aa8wl <aa8wl@comcast.net>
Message-ID: <auudnTlNLqcu4F3dRVn-sA@comcast.com>
Source record: 25781

Looking for manuals for the following items: Heathkit IT-12 signal tracer. and Eico Model 147a sig tracer. Please reply to: aa8wl@comcast.net TNX 73' de aa8wl Sam

50. Cancel "Re: Medium wave pre selector"

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-04 14:56:05 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <2031c09m65o7pjaulh8094blh5fbjgaa54@4ax.com>
Source record: 25782

[No readable article body recovered]

51. Re: Medium wave pre selector

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-04 14:56:05 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <f231c0dkmm810lmtusqeqlk0a11otvsqlv@4ax.com>
Source record: 25783

>> I am looking for a circuit diagam for a MW pre selector, anything would be
>> of interest

A Cohn filter covering 1.75-7.2kHz, is shown on
http://home.online.no/~la8ak/c11.htm
some Cohn filters have been published and turned out to be extremely
difficult to copy, but LA7MI claims this is quite easy to make.
Perhaps somebody could scaLe the values down to the mediumwave band?

I've received some more requests for such construction, so I am not
worried whether this writer needed a simple filter or not, it is a lot
of demands for useful solutions

73
jm

52. Re: Manuals for 2 signal tracers

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-04 18:56:29 UTC
From: Lou <FFSTA17NO@SPAMACCESS995.COM>
Message-ID: <PB3wc.964$ri.84509@dfw-read.news.verio.net>
Source record: 25784

I answered you yesterday.... Did you not get it? I gave you a price
"shipped" for the Eico 147A Sig Tracer.

Lou

"aa8wl" <aa8wl@comcast.net> wrote in message
news:auudnTlNLqcu4F3dRVn-sA@comcast.com...
> Looking for manuals for the following items: Heathkit IT-12 signal
> tracer. and Eico Model 147a sig tracer. Please reply to:
> aa8wl@comcast.net TNX 73' de aa8wl Sam
>
>

53. Re: Bi-directional amplifiers

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-04 23:00:08 UTC
From: Ken Scharf <wa2mzeNOTTHIS@bellsouth.net>
Message-ID: <p27wc.12210$xt5.9866@bignews2.bellsouth.net>
Source record: 25785

msix@oldplato.nmia.com wrote:
> Avery wrote:
>
>>In article <fcc11bcf.0405231032.1bd1187d@posting.google.com>,
>>farhan@phonestack.com (Ashhar Farhan) writes:
>
>
>>>are there any resources available on design of bidirectional amps on
>>>the net?
>
>
> Look at the SBE-33 and SBE-34 ckts. They used them...
> GL John W7ZFB
The SBE-33 and 34 circuits (plus a rig from QST "transceive with
transistors")
are bidirectional, but only in one direction at a time. The direction
of operation is switched with the ptt circuit. I think he means in
both directions at the same time, as would be used in full duplex
phone circuits.

54. Re: $50+ speaker boxes ... why do people buy these?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-05 01:12:33 UTC
From: Ken Scharf <wa2mzeNOTTHIS@bellsouth.net>
Message-ID: <w_8wc.13002$xt5.3912@bignews2.bellsouth.net>
Source record: 25786

Wes Stewart wrote:
> On Sun, 23 May 2004 18:40:59 GMT, "Doug McLaren" <dougmc@frenzy.com>
> wrote:
>
> |So I went to the Belton, TX hamfest yesterday, and picked up a few
> |things ...
> |
> |But I saw a number of speaker boxes that people were asking as much as
> |$70 for ... why would somebody pay this much for a speaker box? I
> |just don't get it.
> |
> |It's just a box with a speaker in it. It's about the easiest thing in
> |the world to make yourself, or you could pick up one that was used in
> |something like a police car for around $10 (I saw some of those too.)
> |Or you could use one from a computer speaker (though the $3 models are
> |probably too crappy even for ham radio use.)
> |
> |Do people want something that matches their radio equipment? Are they
> |collectors? Am I understimating the quality needed to accurately
> |reproduce a 800 hz CW signal or a SSB conversation? :)
>
> Apparently not according to the Parts Express catalog I received in
> today's mail.
>
> Audiophiles have ears so good that they seem to be willing to spend
> $100 per foot for copper wire. (No, that's not a typo). Of course
> this is "special" wire whose properties include allowing each
> frequency to find its own path of least resistance.
>
> This seems to be important even when there is only one frequency (60
> Hz) involved, because the same "patented technology" allows
> "incredibly fast and accurate transfer of power, blah, blah..." in a 6
> foot power cord that can be had for only $492. At least it has
> connectors on it, the $100/foot stuff just has spade lugs on the ends
> (gold-plated of course).
>
> For some laughs see:
>
> http://www.soundstringcable.com/ss_product.html
>
> It's refreshing to see that they were thoughful enough to print arrows
> on the cable jacket so the electrons don't become confused and travel
> in the wrong direction. This ensures uniform current and signal flow
> to and from all components.

>
> N7WS
>
>
>
>
>
Well a friend of mine and I couldn't tell the difference between
Monster cable and 12 gauge Romex feeding his subwoofers.
And don't tell me we have tin ears, my friend at least is quite
a pianist (and can tell the difference between live and memorex!).

55. wanted seme lab D1001/2uk

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-05 01:40:34 UTC
From: zindazenda <zen@lineisp.co.uk>
Message-ID: <1086399631.637484@smtp-1.griffin.com>
Source record: 25787

hello
looking for some D1001uk and D1002uk rf fets..(20w and 40w out at vhf) or
equvs..can anyone help..

thanks simon g0zen

56. Re: Fluke meters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-05 06:09:18 UTC
From: Judy <Judy@nospam.com>
Message-ID: <40C1638C.960DE1A2@nospam.com>
Source record: 25788

Hi Jim

Yes, I also prefer the Fluke meters. I own a bench and handheld model.

They have a lifetime warranty and are a good investment new or used.

Many good models available on ebay from the big tech sellers at a good price.

judy

James wrote:

> Fluke's DMMs do cost much more than generic ones. They guarantee accuracy
> that the others can't touch. I've always been amused that Radio Shack and
> many other inexpensive DMMs don't publish accuracy specifications.
>
> If you want something for relative measurements (peaking, etc) and hobby
> use, you have a wider field available. If you use it for a living and it
> *has* to work - well, my Fluke 87 has served *me* wonderfully well. But
> modern IC technology has certainly made a lot of capability available for
> little cost elsewhere!
>
> Jim WB9SYN/6 (Not affiliated with Fluke)

57. NDI HC-1400

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-05 10:41:44 UTC
From: Mario Bros <rocco.calbe@tin.it>
Message-ID: <lrhwc.410203$rM4.16978199@news4.tin.it>
Source record: 25789

I am looking for schematics for a old two meter transceiver.The unit is made/marketed by a company called NDI and
is a model HC-1400.Any scannerized copy or manual for repair would be greatly appreciated.

Thanks in advance. IK6GQC

58. Re: Bi-directional amplifiers

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-05 11:39:02 UTC
From: farhan@phonestack.com
Message-ID: <fcc11bcf.0406050339.b4c7f9e@posting.google.com>
Source record: 25790

Ken Scharf <wa2mzeNOTTHIS@bellsouth.net> wrote in message

> The SBE-33 and 34 circuits (plus a rig from QST "transceive with
> transistors")
> are bidirectional, but only in one direction at a time. The direction
> of operation is switched with the ptt circuit. I think he means in
> both directions at the same time, as would be used in full duplex
> phone circuits.

i have compeleted the bidirectional transceiver for which i was
seeking this info. it has been posted on this group and you can view
it on http://farhan.net.co.nr.
the bidirectional amplifiers do not use transformers, they are RC
coupled and they have proven to be quite stable.

- farhan

59. Re: Fluke meters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-05 13:50:36 UTC
From: fmmck@aol.com
Message-ID: <20040605095036.09767.00000507@mb-m06.aol.com>
Source record: 25791

<< I am considering purchasing a Fluke meter to do some
alignments & repairs here.
Can anyone reccomend a Fluke meter model or anothere brand model? >>

Clint-

I like the idea of having a couple of those cheap meters. I keep one in my brief case and one I take with me on trips.

For the shop, I wanted something I could depend on, so back in about 1980 I purchased a Fluke 8020A handheld digital multimeter. Soon after that the display darkened. I purchased an upgraded display, installed it myself, and have had no other problems since then.

Three years ago I bought a Fluke 8012A bench model digital multimeter at a Hamfest for $40. It looked rough and was missing its power cord and probes. With just probes and a new cord, it appears to be working perfectly. Comparing it with the old 8020A, readings of various voltages and precision resistors were identical, except for a 0.01 volt difference when reading a 13.8 volt power supply. I know that the 8020A has never been calibrated since leaving the factory.

About a year later I bought a Fluke 8050A bench model digital multimeter in non-working condition, for $35. This model has one more digit of resolution than the other two meters, and has true RMS on AC. The problem turned out to be that it had dead internal batteries, and required the batteries to act as a voltage regulator when operated on AC. Some slightly smaller batteries from Radio Shack made it work. Again, it appears to be working perfectly. Voltage and resistance readings agree with both other meters. (I forget which one of the three was 0.01 volt off on 13.8!)

The moral of the story is that here are three meters approaching 25 years of age, that have maintained their accuracy in spite of rough handling over the years.

I would recommend any of the three models if you can find a used one. Of course, you may find that someone has mis-calibrated it, so you need some assurance it is still accurate. Perhaps you can scrape together a handful of precision resistors and use them as a "standard".

If you want a more modern meter, the latest Flukes offer auto-ranging. The early versions sacrificed some accuracy and were slow, but I understand more recent models are better. However, I'm not willing to spend the money for auto-ranging when my old fixed-range meters are so good!

73, Fred, K4DII

60. Awesome app note

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-05 16:27:51 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <MPG.1b2a6f1d8227c95e9896b9@news-central.giganews.com>
Source record: 25792

I'm surprised I've never run across this:

http://www.linear-tech.com/pdf/an47fa.pdf

Much more widely-applicable than its subtitle ("A Designer's Companion
for Wideband Circuitry") suggests.

132 pages long, worth every byte for the photos alone.

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam
---

61. Re: Fluke meters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-05 16:43:55 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <fnt3c0lohnrionuj2ld92lfrbtbf82jr21@4ax.com>
Source record: 25793

On 05 Jun 2004 13:50:36 GMT, fmmck@aol.com (Fred McKenzie) wrote:

><< I am considering purchasing a Fluke meter to do some
>alignments & repairs here.
>Can anyone reccomend a Fluke meter model or anothere brand model? >>
>
>Clint-
>
>I like the idea of having a couple of those cheap meters. I keep one in my
>brief case and one I take with me on trips.
>
>For the shop, I wanted something I could depend on, so back in about 1980 I
>purchased a Fluke 8020A handheld digital multimeter. Soon after that the
>display darkened. I purchased an upgraded display, installed it myself, and
>have had no other problems since then.
>
strange... believe I bought the 8020B already in 1980, but after a
while I had to put some paper under the pcb to push the contact harder
against the display to obtain proper reading. Still have some 8020B's
but they usually don't work properly too often.

One strange fault occurred when I tried to measure the booster voltage
in a tv set, the varistor for input protection blow, and I had to look
for some resistor-looking type. The resistance measurement wouldn't go
higher than 100-150k until the varistor was replaced

73
Jan-Martin
LA8AK

62. FA: Heavy Duty 20m (14mhz) Dipole Antenna

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-05 17:48:18 UTC
From: Smog <james@burrill.co.uk>
Message-ID: <c9t0vvmfv1@newsg3.svr.pol.co.uk>
Source record: 25794

http://cgi.ebay.co.uk/ws/eBayISAPI.dll?ViewItem&item=5703371491

--

Jim Burrill (Smogthemog)
M1BMW
Kiteaholic
www.jbphonetech.info

Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.699 / Virus Database: 456 - Release Date: 04/06/2004

63. Re: Awesome app note

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-05 19:47:24 UTC
From: John Walton <jdwalton@comcast.net>
Message-ID: <tOudnU1tSfj0v1_dRVn-sw@comcast.com>
Source record: 25795

Williams also has a sense of humor.

Jack
"John Miles" <jmiles@pop.removethistomailme.net> wrote in message
news:MPG.1b2a6f1d8227c95e9896b9@news-central.giganews.com...
> I'm surprised I've never run across this:
>
> http://www.linear-tech.com/pdf/an47fa.pdf
>
> *Much* more widely-applicable than its subtitle ("A Designer's Companion
> for Wideband Circuitry") suggests.
>
> 132 pages long, worth every byte for the photos alone.
>
> -- jm
>
> --
> http://www.qsl.net/ke5fx
> Note: My E-mail address has been altered to avoid spam
> --

64. easy pc question (pcb cad prog)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-05 19:48:27 UTC
From: zindazenda <zen@lineisp.co.uk>
Message-ID: <1086464908.922342@smtp-1.griffin.com>
Source record: 25796

hello

Help!!!

how do you include pcb cutouts (ie for mounting rf power transistor) on the design using easy pc programe..I have tried and am at the stage of burning the computer..so not much luck..

thanks simon

65. Re: Metcal RF generator

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-05 20:26:45 UTC
From: Chuck Olson <chuckolson01@REMOVETHIScomcast.net>
Message-ID: <90qwc.44673$pt3.33958@attbi_s03>
Source record: 25647

"Chuck Olson" <chuckolson01@REMOVETHIScomcast.net> wrote in message
news:Tz5uc.14050$eY2.3710@attbi_s02...
> My Metcal RFG-30 soldering system power supply quit on me a week or so
ago,
> so yesterday I decided to look into
> the problem. After removing 8 screws holding two bottom covers I was able
> to slide out the front and back dress panels for very limited access to
> fasteners. I couldn't find any way to unfasten the top cover which would
> allow separating the two halves of the case, but that turned out to be
> unnecessary. The single power transistor, an IRF130 TO-3 case FET was
> mounted with nuts on studs that came up through the mounting holes. One
end
> had a Nylon shoulder washer under the nut but the other end made
electrical
> contact with the case and was found to be barely finger tight. Since that
> had to be the drain connection to the device, I gently firmed up that
> fastener and reattached the cables to test the unit - - back in operation.
> I was particularly impressed with the toroidal power transformer in the
> base - - that had to cost the manufacturer some serious cash. If anyone
> knows how to remove the plastic top panel, that knowledge will help
improve
> the serviceability of this excellent product.
>
> Chuck W6PKP
>
Well the RFG-30 quit on me again, so this time I had to get into the package
to find out what was the matter. Pete, KE9OA, said something about removing
an overlay, which at the time went by me without even pausing at my brain.
But faced now with this puzzle, I looked and looked, and eventually I could
see where sheetmetal screws came down through the aluminum top panel, but
there were no screw heads visible above them. They had to be covered up
with something, so I started tapping on the flat surface around the on/off
switch, and sure enough in places it sounded thin and hollow. So I got a
sharp little screwdriver and found a corner that looked like there was space
around a thin covering and started to pry up on the corner of that covering,
and what do you know - - it was a thin "overlay" (now I know what an overlay
is) that was glued down to the plastic top panel with rubber cement, and it
came up fairly easily, exposing the four Philips-head sheetmetal screws that
needed to be removed to get down to the aluminum top panel holding the
on/off switch.

So there you have it. Now the halves of the case can be separated and
re-arranged to service the innards of the machine. One thing surprised me,
though. I found a whole lot of stored energy in the 1000 uf 50 volt filter

capacitor, and it stayed charged up to around 40 volts between the times the unit was turned on. Now 40 volts is something to be a little concerned about. I remember being zapped by a 45 volt "B" battery when I was a kid, so this thing is not so different. If shorted, the sound of that arc is sure to attract some attention from people nearby. Okay, it's not deadly, but a little bleeder resistor across that 40 volt supply wouldn't hurt.

I found help servicing this unit from the 1986 Metcal patent 4,626,767 which contains a pretty accurate circuit diagram of the RF and power supply sections of the RFG-30, missing only the use of the SG3526. You can view and print out this patent by using http://www.pat2pdf.com/ which will turn the document into a PDF file you can download. I wasn't able to find out much from their other patents about the use of the SG3526 where they (oddly to me) ground the A and B outputs of the chip, but the OnSemi data sheet from http://www.newrock.com.cn/pdf/igbtgo/SG3526.pdf shows an application in figure 21 that looks like it's probably how they're using it. If anyone knows of a source of more recent schematics on the RFG-30, the PS2 or MX-500 power supplies, this is a good place to let all the people that are interested see them. I found a 1N4001 diode that passes rectified pulses to the 470 uf 25 v filter capacitor on the 16 volt supply, I think it was D7, bad, and replaced it, restoring operation.

Chuck W6PKP

66. B&W HF Wideband Folded Dipole and Isotron

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-05 23:08:33 UTC
From: "Rev. Robert P. Chrysafis" <kc8gpd28@nospam.earthlink.net>
Message-ID: <Rnswc.22641$Tn6.50@newsread1.news.pas.earthlink.net>
Source record: 25648
Cross-posted to: alt.binaries.schematics.electronic,alt.radio.amateur,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

Hi All,

I am looking for homebrew designs for the Barker & Williamson 90ft or 180ft 1.8-30MHz Broadband Folded Dipole. also intersted in desgins based on the isotron.

Thanks,

--
Rev. Robert P. Chrysafis
Universal Life Ministries [ULC]

88.3 FM Stereo 1000 AM Stereo
100,000 MicroWatts of Community Power!!

67. Re: Recomended mid-range shortwave set-up

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-05 23:11:50 UTC
From: Kyle2 <kyle@gtx.net>
Message-ID: <oitwc.684$Ou.371@newsfe3-win.server.ntli.net>
Source record: 25649
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.shortwave

Hurry up then as everything will be digital soon!

"Steve" <abc@123.com> wrote in message
news:ZQzuc.76676$7R6.21762@newssvr25.news.prodigy.com...
> Hi,
>

Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.698 / Virus Database: 455 - Release Date: 03/06/2004

68. Re: Awesome app note

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-05 23:56:36 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <r9n4c0ttpdjj3d14lt2t6nudmahl56nt0f@4ax.com>
Source record: 25650

On Sat, 5 Jun 2004 09:27:51 -0700, John Miles
<jmiles@pop.removethistomailme.net> wrote:

>http://www.linear-tech.com/pdf/an47fa.pdf

John,
could you tell me the previous page so I can save the pages, I don't
know the procedure from the link given

73
Jan-Martin

69. Re: B&W HF Wideband Folded Dipole and Isotron

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-06 00:12:41 UTC
From: "John H. Carver Jr." <jcarver@pepkaspr.com>
Message-ID: <cbn4c09toorrtr0e3lgaeb20f5ojkpfeg5@4ax.com>
Source record: 25651

Warm up your search engine and put in TTFD and T2FD. The two best articles will be on the Harc-Core DX site and the Radio Havana mirror site. This antenna has also been covered in Monitoring Times and Popular Communications, twice in each. This is my favorite antenna and I've built several. If you are not going to transmit you can even build it cheaper. Holler if you want to know more.

On Sat, 05 Jun 2004 23:08:33 GMT, "Rev. Robert P. Chrysafis" <kc8gpd28@nospam.earthlink.net> wrote:

>Hi All,
>
>I am looking for homebrew designs for the Barker & Williamson 90ft or 180ft
>1.8-30MHz Broadband Folded Dipole. also intersted in desgins based on the
>isotron.
>
>Thanks,

70. Re: Awesome app note

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-06 00:57:35 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <MPG.1b2c0bdbf4af994c9896ba@news-central.giganews.com>
Source record: 25652

```
In article <r9n4c0ttpdjj3d14lt2t6nudmahl56nt0f@4ax.com>, la8ak@online.no
says...
> On Sat, 5 Jun 2004 09:27:51 -0700, John Miles
> <jmiles@pop.removethistomailme.net> wrote:
>
> >http://www.linear-tech.com/pdf/an47fa.pdf
>
> John,
> could you tell me the previous page so I can save the pages, I don't
> know the procedure from the link given
>
> 73
> Jan-Martin
>

Someone linked to it on the TekScopes list -- I'm not sure how you'd
find its originating page, beyond searching Google for "an47fa.pdf".

-- jm

-----------------------------------------------------
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam
-----------------------------------------------------
```

71. Re: B&W HF Wideband Folded Dipole and Isotron

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-06 01:04:34 UTC
From: dplatt@radagast.org
Message-ID: <10c4rd28lf8p729@corp.supernews.com>
Source record: 25653
Cross-posted to: alt.binaries.schematics.electronic,alt.radio.amateur,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

In article <Rnswc.22641$Tn6.50@newsread1.news.pas.earthlink.net>,
Rev. Robert P. Chrysafis <kc8gpd28@nospam.earthlink.net> wrote:

>I am looking for homebrew designs for the Barker & Williamson 90ft or 180ft
>1.8-30MHz Broadband Folded Dipole.

http://www.hard-core-dx.com/nordicdx/antenna/wire/t2design.html

The consensus about these antennas seems to be that they're very
convenient, but can be quite inefficient if you're using them on
frequencies well away from those where the dipole is resonant.

> also intersted in desgins based on the
>isotron.

I don't have a good sense of how the Isotron is _supposed_ to work
(according to its manufacturer). What little I've heard of its actual
use in the field suggests to me that it, like many other "miracle"
short vertical antennas, is actually very dependent on radiation from
its coaxial feedline and its support mast. The Isotron itself seems
to act less as a radiator, and more as a sort of end-of-feedline
transmatch between the 50-ohm coax (interior) and the mast and coax
braid. Trying to reproduce one, homebrew, and to get good performance
thereby seems to me to be a recipe for severe frustration.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

72. WTD: 74AS192 or 74S192 counters

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-06 04:10:10 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <COwwc.24725$jl6.6833@edtnps89>
Source record: 25654

I'm building a SWRX with PLL frequency generator and need a 1/2 dozen of
these chips. They are unobtanium from my Vancouver suppliers.

I need the speed of AS or S because the master osc. will be 60-90 MHz.

I live in Chilliwack, BC, Canada, V0X 1X0 for shipping calculations.

Thanks all!

--
Gregg
It's probably useful, even if it can't be SPICE'd
http://geek.scorpiorising.ca

73. Re: Awesome app note

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-06 05:02:29 UTC
From: k7itm@aol.com
Message-ID: <3200347.0406052102.430b3b63@posting.google.com>
Source record: 25655

Hi Jan-Martin,

It may depend on the browser you use, but if you have Adobe Acrobat Reader installed and linked to your browser, clicking on the link John provided should open the ap note, and at least in Internet Explorer and Netscape Navigator, you can then save, not from the "file" menu but from the disk icon that shows at the top of the IE or NN window displaying the ap note. Or, what I did is just right-mouse-click the link instead of opening it, and tell it to save the file. Warning: it's over five megabytes.

Anyway, that link is the whole file...

If you go to the Linear Technology web site, I'll bet you can find it by doing a search for an47, or an47fa, or whatever. (Though I haven't tried that, since it's downloading just fine from the link John provided. Thanks--once again--John!)

Cheers,
Tom

J M Noeding <la8ak@online.no> wrote in message
news:<r9n4c0ttpdjj3d14lt2t6nudmahl56nt0f@4ax.com>...
> On Sat, 5 Jun 2004 09:27:51 -0700, John Miles
> <jmiles@pop.removethistomailme.net> wrote:
>
> >http://www.linear-tech.com/pdf/an47fa.pdf
>
> John,
> could you tell me the previous page so I can save the pages, I don't
> know the procedure from the link given
>
> 73
> Jan-Martin

74. Re: B&W HF Wideband Folded Dipole and Isotron

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-06 06:43:19 UTC
From: Philip de Cadenet <Philstheboss@thebbc.fslife.co.uk>
Message-ID: <qG4HhWCH0rwAFwO1@philstheboss.freeserve.co.uk>
Source record: 25656
Cross-posted to: alt.binaries.schematics.electronic,alt.radio.amateur,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

Dave,

>I don't have a good sense of how the Isotron is _supposed_ to work
>(according to its manufacturer). What little I've heard of its actual
>use in the field suggests to me that it, like many other "miracle"
>short vertical antennas, is actually very dependent on radiation from
>its coaxial feedline and its support mast. The Isotron itself seems
>to act less as a radiator, and more as a sort of end-of-feedline
>transmatch between the 50-ohm coax (interior) and the mast and coax
>braid. Trying to reproduce one, homebrew, and to get good performance
>thereby seems to me to be a recipe for severe frustration.
>

Re the Isotron.

You may wish to look up an IEE paper on Electric Slot Radiators by
Robert K. Zimmerman Jr.

I thought the same as you before I tried one.

One test was to by-pass the feeder altogether. I connected a simple
crystal controlled 160m 1w rig directly to the feed point. Using an AEA
analyser brought the antenna to resonance.

I then measured the field strength using a Potomac FIM.

I then added 15 metres of 1/2" Cellflex as a feeder, relocated the
transmitter, made an insignificant adjustment to the antenna and took
another reading.

The loss through the short length of cable was only around a dB.

I was the very first person to get Ralph at the factory to design a AM
broadcast band version for the low power (1w EMRP) license holders here
in the UK.

A well setup station, at the top end of the band typically covers a 5
-10 mile radius with reception on a portable radio. The end users are
happy with that as the terms of the license only allow coverage over the
campus!
--
Philip de Cadenet G4ZOW
Transmitters 'R' Us

75. Re: NDI HC-1400

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-06 11:33:51 UTC
From: Mario Bros <rocco.calbe@tin.it>
Message-ID: <ziDwc.416113$rM4.17230748@news4.tin.it>
Source record: 25657

Thanks however. I have received from OM the manual.

"Mario Bros" <rocco.calbe@tin.it> ha scritto nel messaggio
news:Irhwc.410203$rM4.16978199@news4.tin.it...
> I am looking for schematics for a old two meter transceiver.The unit is
> made/marketed by a company called NDI and
> is a model HC-1400.Any scannerized copy or manual for repair would be
> greatly appreciated.
>
>
> Thanks in advance. IK6GQC
>
>

76. Re: 74AS192 or 74S192 counters

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-06 13:12:10 UTC
From: Leon Heller <leon_heller@hotmail.com>
Message-ID: <40c3182a$0$25329$cc9e4d1f@news-text.dial.pipex.com>
Source record: 25658

"Gregg" <nospam@unknown.org> wrote in message
news:COwwc.24725$jl6.6833@edtnps89...
> I'm building a SWRX with PLL frequency generator and need a 1/2 dozen of
> these chips. They are unobtanium from my Vancouver suppliers.
>
> I need the speed of AS or S because the master osc. will be 60-90 MHz.

I'd use a CPLD - it'll be faster, cheaper and take up less board space. You
can use it for the rest of the logic as well, including the phase detector.

73, Leon
--
Leon Heller, G1HSM
http://www.geocities.com/leon_heller

77. Kenwood TS-940 & TS-930 Repair Service

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-06 14:27:24 UTC
From: John <lpcwireless@cfl.rr.com>
Message-ID: <gRFwc.62255$0X2.2639363@twister.tampabay.rr.com>
Source record: 25659

Hi all

Professional Repairs/Restoration specializing on the Kenwood TS-940, TS-930 radios. Complete rebuilds from top to bottom, PLL and Power Supply repairs & updates, Replacement RF Drivers. Performance upgrades. I have over 6 + years experience with these radios. I can make your 940 / 930 trouble free and perform as new again !! Extra hard to get parts in stock

Repairs on TS-440 with PLL problems

Kenwood TS-870, TS-850, TS-830, TS-450, TS-430, TS-140, TS-820, TS-520

Yaesu FT-1000D, FT-1000MP, FT-102, FT-990, FT-890, FT-840 FT-767, FT-757,

FT-1000MP key click mods

Completely satisfied customers and long list of references.....Very reasonable rates, personal service with fast turn around time. I also do modifications for SSB audio and filters

73 John, KI4NR

LPC Wireless
lpcwireless@cfl.rr.com
Phone 386-774-9921

78. Re: 74AS192 or 74S192 counters

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-06 14:55:26 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <yfGwc.23554$DV4.9103@clgrps13>
Source record: 25660

Behold, Leon Heller signalled from keyed 4-1000A filament:

> "Gregg" <nospam@unknown.org> wrote in message
> news:COwwc.24725$jl6.6833@edtnps89...
>> I'm building a SWRX with PLL frequency generator and need a 1/2 dozen
>> of these chips. They are unobtanium from my Vancouver suppliers.
>>
>> I need the speed of AS or S because the master osc. will be 60-90 MHz.
>
> I'd use a CPLD - it'll be faster, cheaper and take up less board space.
> You can use it for the rest of the logic as well, including the phase
> detector.
>
> 73, Leon

Hi Leon,

Thanks. But as a tubehead myself, how on earth do I go about doing this?

--
Gregg
It's probably useful, even if it can't be SPICE'd
http://geek.scorpiorising.ca

79. Re: 74AS192 or 74S192 counters

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-06 15:12:48 UTC
From: Leon Heller <leon_heller@hotmail.com>
Message-ID: <40c33470$0$20510$cc9e4d1f@news-text.dial.pipex.com>
Source record: 25661

"Gregg" <nospam@unknown.org> wrote in message
news:yfGwc.23554$DV4.9103@clgrps13...
> Behold, Leon Heller signalled from keyed 4-1000A filament:
>
> > "Gregg" <nospam@unknown.org> wrote in message
> > news:COwwc.24725$jl6.6833@edtnps89...
> >> I'm building a SWRX with PLL frequency generator and need a 1/2 dozen
> >> of these chips. They are unobtanium from my Vancouver suppliers.
> >>
> >> I need the speed of AS or S because the master osc. will be 60-90 MHz.
> >
> > I'd use a CPLD - it'll be faster, cheaper and take up less board space.
> > You can use it for the rest of the logic as well, including the phase
> > detector.
> >
> > 73, Leon
>
> Hi Leon,
>
> Thanks. But as a tubehead myself, how on earth do I go about doing this?

You've got a lot of learning to do. 8-)

Try this web page of mine:

http://www.geocities.com/leon_heller/pld_starter.html

Leon

80. Re: WTD: 74AS192 or 74S192 counters

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-06 15:49:11 UTC
From: "Dr. Anton T. Squeegee" <SpammersArePondScum@dev.null>
Message-ID: <MPG.1b2cdcd270d1dd5c98972d@192.168.42.131>
Source record: 25662

In article <COwwc.24725$jl6.6833@edtnps89>, nospam@unknown.org says...

> I'm building a SWRX with PLL frequency generator and need a 1/2 dozen of
> these chips. They are unobtanium from my Vancouver suppliers.
>
> I need the speed of AS or S because the master osc. will be 60-90 MHz.

The 74HC390, a dual decade counter in one package, has a maximum
clock frequency of 66MHz, and is readily available (or at least a lot
more so than the AS or S package -- less power draw too).

--
Dr. Anton T. Squeegee, Director, Dutch Surrealist Plumbing Institute.
(Known to some as Bruce Lane, ARS KC7GR,
kyrrin (a/t) bluefeathertech[d=o=t]calm -- www.bluefeathertech.com
"If Salvador Dali had owned a computer, would it have been equipped
with surreal ports?"

81. Re: B&W HF Wideband Folded Dipole and Isotron

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-06 15:49:13 UTC
From: Phil <philj@xxspearnet.net>
Message-ID: <Xns9500783CA6D07pj12345pjpj@216.196.97.132>
Source record: 25663
Cross-posted to: alt.binaries.schematics.electronic,alt.radio.amateur,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

This page has complete info about the terminated folded wideband
dipole:

http://www.cebik.com/wbfd.html

This page has the index for many interesting antennae:

http://www.cebik.com/radio.html

This gentleman's site is about the best (in my opinion)
for all sorts of antenna information.

phil

"Rev. Robert P. Chrysafis" <kc8gpd28@nospam.earthlink.net> wrote

> I am looking for homebrew designs for the Barker & Williamson
> 90ft or 180ft 1.8-30MHz Broadband Folded Dipole. also intersted
> in desgins based on the isotron.

82. Re: 74AS192 or 74S192 counters

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-06 15:55:01 UTC
From: "Dr. Anton T. Squeegee" <SpammersArePondScum@dev.null>
Message-ID: <MPG.1b2cde316dc0449498972e@192.168.42.131>
Source record: 25664

In article <yfGwc.23554$DV4.9103@clgrps13>, nospam@unknown.org says...

> Behold, Leon Heller signalled from keyed 4-1000A filament:
>
> > "Gregg" <nospam@unknown.org> wrote in message
> > news:COwwc.24725$jl6.6833@edtnps89...
> >> I'm building a SWRX with PLL frequency generator and need a 1/2 dozen
> >> of these chips. They are unobtanium from my Vancouver suppliers.
> >>
> >> I need the speed of AS or S because the master osc. will be 60-90 MHz.
> >
> > I'd use a CPLD - it'll be faster, cheaper and take up less board space.
> > You can use it for the rest of the logic as well, including the phase
> > detector.
> >
> > 73, Leon
>
> Hi Leon,
>
> Thanks. But as a tubehead myself, how on earth do I go about doing this?

CPLDs are one option, though I don't know enough about them as yet
to say for certain how easy or difficult it would be to design one in.

Here are a couple of links that may help.

http://www.xilinx.com/xlnx/xil_prodcat_product.jsp?title=cpldsolutions_cpldlearn_page

http://www.xilinx.com/xlnx/xil_prodcat_product.jsp?title=design_kit

The designer's kit will run you about $50.

Happy hunting.

--
Dr. Anton T. Squeegee, Director, Dutch Surrealist Plumbing Institute.
(Known to some as Bruce Lane, ARS KC7GR,
kyrrin (a/t) bluefeathertech[d=o=t]calm -- www.bluefeathertech.com
"If Salvador Dali had owned a computer, would it have been equipped
with surreal ports?"

83. Re: B&W HF Wideband Folded Dipole and Isotron

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-06 16:45:09 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.org>
Message-ID: <40c34b24_3@corp.newsgroups.com>
Source record: 25665
Cross-posted to: alt.binaries.schematics.electronic,alt.radio.amateur,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.antenna

R. David Steele wrote:

> <kc8gpd28@nospam.earthlink.net> wrote:
> |I am looking for homebrew designs for the Barker & Williamson 90ft or 180ft
> |1.8-30MHz Broadband Folded Dipole. also intersted in desgins based on the
> |isotron.
>
> It is just a folded loop with a terminating resistor. Much like
> a Rhombic.

But not much like a Rhombic in performance.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

84. Re: WTD: 74AS192 or 74S192 counters

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-06 16:48:11 UTC
From: et472@FreeNet.Carleton.CA
Message-ID: <c9vhsbfjs1@freenet9.carleton.ca>
Source record: 25666

Dr. Anton T. Squeegee (SpammersArePondScum@dev.null) writes:
> In article <COwwc.24725$jl6.6833@edtnps89>, nospam@unknown.org says...
>
>> I'm building a SWRX with PLL frequency generator and need a 1/2 dozen of
>> these chips. They are unobtanium from my Vancouver suppliers.
>>
>> I need the speed of AS or S because the master osc. will be 60-90 MHz.
>
> The 74HC390, a dual decade counter in one package, has a maximum
> clock frequency of 66MHz, and is readily available (or at least a lot
> more so than the AS or S package -- less power draw too).
>
But given that the '192 is programmable, and this is a synthesizer
application, I suspect he wants the '192 for the divide by N counter
chain, not a fixed divider.

Michael VE2BVW

85. Re: 74AS192 or 74S192 counters

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-06 16:57:14 UTC
From: R J Carpenter <rcarpen@erols.com>
Message-ID: <40c35af6$0$2950$61fed72c@news.rcn.com>
Source record: 25667

> "Gregg" <nospam@unknown.org> wrote in message
> news:COwwc.24725$jl6.6833@edtnps89...
> > I'm building a SWRX with PLL frequency generator and need a 1/2 dozen of
> > these chips. They are unobtanium from my Vancouver suppliers.
> >
> > I need the speed of AS or S because the master osc. will be 60-90 MHz.

Have you considered the 74AC series? The 74ac74 will go well above 100 MHz.
Prescale by 4 with these and then use slower presettable counters.

Or the 74HC/HCT4059 is guaranteed to do over 20 MHz and typically 50 MHz and
is a 16-bit presetable counter. Probably very hard to find these days.

86. Re: 74AS192 or 74S192 counters

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-06 18:14:22 UTC
From: k7itm@aol.com
Message-ID: <3200347.0406061014.85ae058@posting.google.com>
Source record: 25668

You can check out Xilinx's free design SW (includes CPLD stuff)
starting here:

http://www.xilinx.com/xlnx/xebiz/designResources/ip_product_details.jsp?key=DS-ISE-WEBPACK

I guess Altera and Atmel also have free or low-cost design solutions.
See, for example, the Atmel ATF15xx-DK2 sold by DigiKey and others.
But the problem is that you still have to actually program the parts,
and that can be a barrier. It's just something you have to commit to
doing, and perhaps spending either some time or some money to put the
right environment in place to make the programming easy. For example,
you can buy a JTAG programmer from Xilinx that plugs into the parallel
port of a PC, and perhaps they still provide an ap note with the
schematic if you wanted to make your own. However, once you do get
over the barrier, the rewards can be great: you can pack quite a lot
into a single CPLD, and you can change it just by re-programming when
you discover a mistake or an improvement. The re-programming can be
(is generally best done) in-circuit, so there's no unsoldering
involved. A single tiny CPLD can have hundreds of flip-flops, with
associated logic.

On the other hand, have you investigated other solutions? I didn't
see your original posting, but suppose that there must be 74AC/74ACT
parts that will clock plenty fast enough, and there are some nice PLL
chips from folks like Analog Devices and National Semiconductor with
built-in programmable dividers for both reference and oscillator
inputs, and they can go up into the GHz region for the oscillator
inputs. (They may appear at first to have TOO HIGH a minimum
frequency, but if you get a dual one designed for both RF and IF
range, you'll probably find that the IF range section will go low
enough.) They are compact and inexpensive.

Cheers,
Tom

Gregg <nospam@unknown.org> wrote in message news:<yfGwc.23554$DV4.9103@clgrps13>...
> Behold, Leon Heller signalled from keyed 4-1000A filament:
>
> > "Gregg" <nospam@unknown.org> wrote in message
> > news:COwwc.24725$jl6.6833@edtnps89...
> >> I'm building a SWRX with PLL frequency generator and need a 1/2 dozen
> >> of these chips. They are unobtanium from my Vancouver suppliers.
> >>
> >> I need the speed of AS or S because the master osc. will be 60-90 MHz.
> >
> > I'd use a CPLD - it'll be faster, cheaper and take up less board space.

> > You can use it for the rest of the logic as well, including the phase
> > detector.
> >
> > 73, Leon
>
> Hi Leon,
>
> Thanks. But as a tubehead myself, how on earth do I go about doing this?

87. Re: 74AS192 or 74S192 counters

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-06 18:18:11 UTC
From: k7itm@aol.com
Message-ID: <3200347.0406061018.7c8e240a@posting.google.com>
Source record: 25669

You can check out Xilinx's free design SW (includes CPLD stuff)
starting here:

http://www.xilinx.com/xlnx/xebiz/designResources/ip_product_details.jsp?key=DS-ISE-WEBPACK

I guess Altera and Atmel also have free or low-cost design solutions.
See, for example, the Atmel ATF15xx-DK2 sold by DigiKey and others.
But the problem is that you still have to actually program the parts,
and that can be a barrier. It's just something you have to commit to
doing, and perhaps spending either some time or some money to put the
right environment in place to make the programming easy. For example,
you can buy a JTAG programmer from Xilinx that plugs into the parallel
port of a PC, and perhaps they still provide an ap note with the
schematic if you wanted to make your own. However, once you do get
over the barrier, the rewards can be great: you can pack quite a lot
into a single CPLD, and you can change it just by re-programming when
you discover a mistake or an improvement. The re-programming can be
(is generally best done) in-circuit, so there's no unsoldering
involved. A single tiny CPLD can have hundreds of flip-flops, with
associated logic.

On the other hand, have you investigated other solutions? I didn't
see your original posting, but suppose that there must be 74AC/74ACT
parts that will clock plenty fast enough, and there are some nice PLL
chips from folks like Analog Devices and National Semiconductor with
built-in programmable dividers for both reference and oscillator
inputs, and they can go up into the GHz region for the oscillator
inputs. (They may appear at first to have TOO HIGH a minimum
frequency, but if you get a dual one designed for both RF and IF
range, you'll probably find that the IF range section will go low
enough.) They are compact and inexpensive.

Cheers,
Tom

Gregg <nospam@unknown.org> wrote in message news:<yfGwc.23554$DV4.9103@clgrps13>...
> Behold, Leon Heller signalled from keyed 4-1000A filament:
>
> > "Gregg" <nospam@unknown.org> wrote in message
> > news:COwwc.24725$jl6.6833@edtnps89...
> >> I'm building a SWRX with PLL frequency generator and need a 1/2 dozen
> >> of these chips. They are unobtanium from my Vancouver suppliers.
> >>
> >> I need the speed of AS or S because the master osc. will be 60-90 MHz.
> >
> > I'd use a CPLD - it'll be faster, cheaper and take up less board space.

> > You can use it for the rest of the logic as well, including the phase
> > detector.
> >
> > 73, Leon
>
> Hi Leon,
>
> Thanks. But as a tubehead myself, how on earth do I go about doing this?

88. Re: 74AS192 or 74S192 counters

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-06 20:26:55 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <j6Lwc.23700$DV4.9545@clgrps13>
Source record: 25670

Behold, Leon Heller signalled from keyed 4-1000A filament:

> "Gregg" <nospam@unknown.org> wrote in message
> news:yfGwc.23554$DV4.9103@clgrps13...
>> Behold, Leon Heller signalled from keyed 4-1000A filament:
>>
>> > "Gregg" <nospam@unknown.org> wrote in message
>> > news:COwwc.24725$jl6.6833@edtnps89...
>> >> I'm building a SWRX with PLL frequency generator and need a 1/2
>> >> dozen of these chips. They are unobtanium from my Vancouver
>> >> suppliers.
>> >>
>> >> I need the speed of AS or S because the master osc. will be 60-90
>> >> MHz.
>> >
>> > I'd use a CPLD - it'll be faster, cheaper and take up less board
>> > space. You can use it for the rest of the logic as well, including
>> > the phase detector.
>> >
>> > 73, Leon
>>
>> Hi Leon,
>>
>> Thanks. But as a tubehead myself, how on earth do I go about doing
>> this?
>
> You've got a lot of learning to do. 8-)
>
> Try this web page of mine:
>
> http://www.geocities.com/leon_heller/pld_starter.html
>
> Leon

Thanks Leon! :-)

I'm a fast learner, you rock!

--
Gregg
It's probably useful, even if it can't be SPICE'd
http://geek.scorpiorising.ca

89. Re: 74AS192 or 74S192 counters

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-06 20:28:05 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <p7Lwc.23715$DV4.17897@clgrps13>
Source record: 25671

Behold, R J Carpenter signalled from keyed 4-1000A filament:

>> "Gregg" <nospam@unknown.org> wrote in message
>> news:COwwc.24725$jl6.6833@edtnps89...
>> > I'm building a SWRX with PLL frequency generator and need a 1/2 dozen
>> > of these chips. They are unobtanium from my Vancouver suppliers.
>> >
>> > I need the speed of AS or S because the master osc. will be 60-90
>> > MHz.
>
> Have you considered the 74AC series? The 74ac74 will go well above 100
> MHz. Prescale by 4 with these and then use slower presettable counters.
>
> Or the 74HC/HCT4059 is guaranteed to do over 20 MHz and typically 50 MHz
> and is a 16-bit presetable counter. Probably very hard to find these
> days.

Thanks RJ,

Those chips *are* on my suppliers list :-)

--
Gregg
It's probably useful, even if it can't be SPICE'd
http://geek.scorpiorising.ca

90. Re: WTD: 74AS192 or 74S192 counters

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-06 20:31:13 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <laLwc.23754$DV4.15575@clgrps13>
Source record: 25672

Wow! I did not anticipare such a wonder ful response. Thank you very much all.

I will take *all* of your advice actually - I will use the 74AC192 for the divide-by-N counters and try my hand at PLD's for the PLL and peripheral circuitry.

I run Linux and can program Perl blindfolded, so writing a programmer will be no problem :-)

Again, many, many thanks!

--
Gregg
It's probably useful, even if it can't be SPICE'd
http://geek.scorpiorising.ca

91. PLEASE CHECK MY WEBSITE

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-06 22:45:34 UTC
From: dialcover@webtv.net
Message-ID: <10726-40C39E8E-275@storefull-3252.bay.webtv.net>
Source record: 25674

CHECK MY WEBSITE: www.dialcover.com
Bill Turner, excuse caps, short answers, stroke.
Business SASE, each order a copy of The Pocket Resource Guide.

92. Re: Calibratable Field Strength Meter?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-06 22:52:29 UTC
From: Ed Bailen <n5kzw@arrl.net>
Message-ID: <qp77c0h66amq581hjrt7i4msvuh6f6fmts@4ax.com>
Source record: 25673

One of the tech support people at Guidant actually sent us some
information regardint the testing limits on my wife's device. In the
area of interest to hams, it thas been tested at a field strength of
140 V/m RMS over a frequency of 500 KHz to 6 GHz..

Thanks for the discussion and information,
Ed Bailen - N5KZW

On 04 Jun 2004 00:17:10 GMT, fmmck@aol.com (Fred McKenzie) wrote:

><< Tom-
>
>You caught me!
>
>I don't have a calculator handy, but it seems to me that the correct formula
>yields an even lower power when spread over three times the area.
> >>
>
>
>Caught again!
>
>I took another look at my earlier calculations and found that not only did I
>have the wrong formula for the area of a sphere, I had my equation upside down!
> I ended up with something like watts per square meter equals square meters per
>watt. Yes, the power is spread over a greater area, but that did not
>compensate for the really stupid mistake.
>
>So, if one volt per meter equals 2.7 milliWatts per square Meter, that field
>strength would be generated by a five watt handheld radio at a distance of 15.4
>Meters, which is about 50 Feet. This is sounding serious unless the
>defibrillator has a greater tolerance. I certainly hope it does, since we are
>often irradiated by passing mobile radios running 50 watts or so, at closer
>distances than 50 feet.
>
>Lets see - 50 watts is ten dB greater, so the distance would be about 3 times
>as great as 5 watts, or about 150 feet for one volt per meter. Or, maybe I
>should just keep my mouth shut to keep from screwing up again!
>
>73, Fred, K4DII

93. CricuitMaker Student Software Flawed?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-06 22:59:00 UTC
From: Ed Bailen <n5kzw@arrl.net>
Message-ID: <p487c0l71bn4rucspkhhfsvrci16ru4r8n@4ax.com>
Source record: 25675

The last issue of QST had a short article on the CircuitMaker Student edition circuit design package. I downloaded it and spent several hours trying various oscillator designs (including the phase shift oscillator discussed in the same issue of QST). I couldn't get any of the designs to oscillate! I was mainly trying Colpitts oscillators.

Has anyone else tried designing oscillatos with this application?

Thanks,
Ed Bailen

94. Re: CricuitMaker Student Software Flawed?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-06 23:31:41 UTC
From: Duncan Munro <postmaster@duncanamps.com>
Message-ID: <p3mk4hel6p83.i64a2dhp8ujv.dlg@40tude.net>
Source record: 25676

On Sun, 06 Jun 2004 17:59:00 -0500, Ed Bailen wrote:

> The last issue of QST had a short article on the CircuitMaker Student
> edition circuit design package. I downloaded it and spent several
> hours trying various oscillator designs (including the phase shift
> oscillator discussed in the same issue of QST). I couldn't get any of
> the designs to oscillate! I was mainly trying Colpitts oscillators.
>
> Has anyone else tried designing oscillatos with this application?

Ed, I don't have any experience of CircuitMaker but I do have trouble with
getting oscillators to oscillate on other simulation packages. This is
inherent in the design of the simulators in that they will deliberately try
to stabilise the circuit and stop the oscillation from taking off!

If you have an option in there to 'skip initial transient solution' or
something similar, it's good to check the box and bypass it - this is the
thing that tries to DC stabilise the circuit. From there, it relies on
noise to get the oscillator start and if there isn't any, it won't...

--
Duncan Munro M0KGK
http://amateur.duncanamps.com/
BOF #023 FISTS #10815

95. Re: B&W HF Wideband Folded Dipole and Isotron

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-07 00:25:46 UTC
From: haynes@alumni.uark.edu
Message-ID: <eCOwc.4281$uX2.3243@newsread2.news.pas.earthlink.net>
Source record: 25677

See also www.uspto.gov, search patents and go to 4,423,423

--

jhhaynes at earthlink dot net

96. Re: CricuitMaker Student Software Flawed?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-07 03:24:35 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <TdRwc.28714$B%4.8582@clgrps12>
Source record: 25678

You need to set an "Initial Condition" (place the I.C. box from parts) for it
to begin oscillating :-)

--
Gregg
It's probably useful, even if it can't be SPICE'd
http://geek.scorpiorising.ca

97. Re: LSB problems with IC706MKII

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-07 04:26:12 UTC
From: fmmck@aol.com
Message-ID: <20040607002612.29553.00000667@mb-m05.aol.com>
Source record: 25679

<< What I would do first is a filter calibration. It's possible this will fix your problem if you are lucky. >>

Mark-

I have the older IC-706, and your instructions worked perfectly on it as well. However, I couldn't tell any difference in the sound between USB and LSB after the calibration was complete.

The difference in sound isn't extreme, just enough to be annoying. Further, it is about the same with both the normal filter and the narrow SSB filter. I tried the calibration with both filters, although the "NAR" indication goes off while the process is being completed. I also tried it with the IF shift at both extremes, with no noticeable difference in the results.

Any other ideas?

73, Fred, K4DII

98. Pinlayout/Datasheet of E89382 LCD wanted

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-07 04:57:35 UTC
From: Markus Wolfgart <xx_markus.wolfgart@dlr.de>
Message-ID: <40C3F5BF.1050908@dlr.de>
Source record: 25680

Halo NG,

I'm looking for a pin/connector layout of the mentioned
LCD. Follow the specified link to view the pictures I had
made for better identification.

www.jlrb.de/PTP-MV1-E89382__1.jpg
www.jlrb.de/PTP-MV1-E89382__2.jpg

The PCB has the listed data specified below printed
on top of it.

94V-0
PTP
MV-1
9529
E89382

LCM BOARD 38-600400-00 REV:0

Many thanks in advance for your help ;-)

Markus
DL8MBY

==========

Markus Wolfgart

DLR

==========
PS.: remove the xx_ from email adr. to reply
==========

99. Re: CricuitMaker Student Software Flawed?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-07 05:03:59 UTC
From: John <jmort@despammed.com>
Message-ID: <ca163ssqm1@newsg4.svr.pol.co.uk>
Source record: 25684

"Ed Bailen" <n5kzw@arrl.net> wrote in message
news:p487c0l71bn4rucspkhhfsvrci16ru4r8n@4ax.com...
> The last issue of QST had a short article on the CircuitMaker Student
> edition circuit design package. I downloaded it and spent several
> hours trying various oscillator designs (including the phase shift
> oscillator discussed in the same issue of QST). I couldn't get any of
> the designs to oscillate! I was mainly trying Colpitts oscillators.
>
> Has anyone else tried designing oscillatos with this application?
>
> Thanks,
> Ed Bailen

Are you sure you set the simulation time long enough for the oscillator to
get started ?

100. Re: Fluke meters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-07 06:12:52 UTC
From: Rex <me@hutmail.invalid>
Message-ID: <2u18c09jkpqgloq09q064hcsklvt27ot87@4ax.com>
Source record: 25681

On Wed, 2 Jun 2004 11:15:29 -0400, "Eike Lantzsch, ZP6CGE"
<eikelan@gmx.net> wrote:

>I prefer a Fluke anyway. This is why:
[snip]

They are good.

For what it is worth, I bought a big Fluke 5 1/2 digit 8520A ten or more years back used. It is still going strong. I hardly ever use some of its fancy features, but I do use 4-wire resistance sometimes. It is hardly portable (rack mount size) but great on the bench.

Here's a story about its resistance to abuse:

At some flea market I once acquired some strange glass encapsulated resistors. They were at least an inch long and very high resistance (100Mohm or more as I recall). It occured to me I could use one or two to make a nice HV probe. So I built a divider inside a plastic tube. I found a HV dc/dc supply in my junk that I think was in the 1-2 kv range. I turned it on, and tried measuring with my new probe plugged into my Fluke. The plastic tube was clear, and to by horror, when I touched the probe on the HV the glass resistor lit up. (I'm guessing they were gas filled to do this on purpose, but I really have no clue why it happened -- the voltage should not have jumped the gap in air.)

So as I see this happening in the probe, I hear the Fluke make strange unpleasant clicking noises. I look over at my favorite meter and the display is now in Klingon. With great sadness I power cycle the meter and to my amazement the meter looks fine. I have never seen any indication that anything was permanently injured. Try that with a cheapo meter.

Not that I have anything against the cheap ones -- I have several.

101. Re: dds + pic

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-07 06:56:00 UTC
From: victor.koren@st.com
Message-ID: <efbe7b64.0406062256.16051eda@posting.google.com>
Source record: 25682

You can look at the OM3CPH site:
http://www.qsl.net/om3cph/om3cph.html
It has some beautiful projects including DDS generators controlled by PIC.

marsgal42@hotmail.com (Laura Halliday) wrote in message
news:<d42b5a72.0405301423.a814068@posting.google.com>...
> Ken Scharf <wa2mzeNOTTHIS@bellsouth.net> wrote in message
news:<WDRtc.5465$Yf6.4533@bignews1.bellsouth.net>...
> > Has anybody here attempted to use a pic to control a dds chip (and
> > wrote the software himself)?
> > (snip...)
>
> Or "herself", as the case may be...sheesh.
>
> My very first attempt in this area was a long time
> ago. I built a DDS around a Qualcomm parallel-input
> DDS chip but got tired of binary computatin and
> soldering diodes into a programming board. So I made
> a controller with a shaft encoder, a Basic Stamp
> and a serial-to-parallel interface cobbled together
> out of 74HC logic. It worked fine.
>
> Don't try to do everything at once. Get basic
> functionality first, *then* get fancy. Do you
> really need umpteen memories, variable tuning rates,
> and so on? Right away? Probably not...
>
> My Q2220 controller manipulated the 24 bit tuning
> word directly (the steps were 50 million / 2^24,
> about 3 Hz), then the software turned this into a
> frequency readout. With modern chips you probably
> don't want to do it this way around.
>
> It's not a crime to recycle other peoples' code,
> like the mundane and generally boring bit-pushing to
> talk to a 44780 LCD controller.
>
> Laura Halliday VE7LDH "Que les nuages soient notre
> Grid: CN89mg pied a terre..."
> ICBM: 49 16.05 N 122 56.92 W - Hospital/Shafte

102. Re: CricuitMaker Student Software Flawed?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-07 07:23:00 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <6kv7c053ibsj0khqdt1vbkpfeaanhil68s@4ax.com>
Source record: 25683

On Sun, 06 Jun 2004 17:59:00 -0500, Ed Bailen <n5kzw@arrl.net> wrote:

>The last issue of QST had a short article on the CircuitMaker Student
>edition circuit design package. I downloaded it and spent several
>hours trying various oscillator designs (including the phase shift
>oscillator discussed in the same issue of QST). I couldn't get any of
>the designs to oscillate! I was mainly trying Colpitts oscillators.

Typically, an oscillator is just a noise amplifier with some frequency selective feedback. In a real oscillator, there is always some wide band thermal noise present, which is amplified, some selected frequencies are circulated back to the input and reamplified and so on. Finally, there is going to be a narrow spectral line and a wide band noise floor due to the thermal noise, assuming of course that the phase, amplification and feedback loss conditions are correct.

If the simulator does not simulate the thermal noise inherent in all resistors and semiconductors in temperatures above absolute zero, it is not very likely that the design would oscillate. Inject a very low level wide band noise into the amplifying stage and the oscillation should start. However, I have never seen the CircuitMaker or how to generate a wide band noise signal with it.

Paul OH3LWR

103. Re: various qrp projects

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-07 08:32:31 UTC
From: pake@extrafoi.se
Message-ID: <pake-0101040138460001@dhcp-032-102.foi.se>
Source record: 25685

In article <20040602214216.02246.00000371@mb-m28.aol.com>,
nightowls627@aol.comnojunk (Greg Doughty) wrote:

> Hello to all!! I am beginning the qrp cw journey and would like to know where
> to begin. I have the rigs and have built a rockmite 20 but need to find
> resources for things like qrp swr meter. Is there a group and magazine or
> other things that support the qrper?
>
> Thanks
>
> 73
> Greg
> ki4bbl@arrl.net

SWR
http://www.njqrp.org/qhbextra/3/3i.html
http://www.geocities.jp/ja6hic/soku/swr/swr.html
http://www.qsl.net/mnqrp/swr.htm
http://www.g4wif.fsnet.co.uk/q_tech15.htm

With LED-indicator
http://ua70.faithweb.com/cgi-bin/i/minipig/qrp-tune.jpg

Home brew
http://www.qsl.net/yo5ofh/projects/ham%20radio%20projects.htm
http://www.alphalink.com.au/~parkerp/vxo.gif
http://members.fortunecity.com/xe1bef/projects.htm
http://www.intio.or.jp/jf10zl/
http://noname.cmpe.ubc.ca/pierre/hbradios.htm

Home Brew (more then qrp):
http://hem2.passagen.se/sm0vpo/
http://www.circuitsage.com/
http://www.antentop.bel.ru/
http://www.rason.org/Projects/projects.htm
http://homepage.eircom.net/~ei9gq/index.html
http://www.qrp.pops.net/
Software:
http://www.btinternet.com/~g4fgq.regp/page3.html#S301%22

Forum:
http://www.e-discounter.net/qrparci/
http://listserv.lehigh.edu/lists/Archives/qrp-l/subject.html

Links to QRP:
http://www.amqrp.org/misc/links.html

http://www.qsl.net/ok1dpx/favorites/favorites.htm
http://www.k1dwu.net/ham-links/qrp.phtml
http://www.qsl.net/ve6bpr/
http://www.directory.net/Recreation/Radio/Amateur/Homebrew/
http://members.fortunecity.com/xe1bef/projects.htm
http://www.qrpworld.com/qrplinks.htm
http://www.ac6v.com/

/Per-Ake

--
Remove "extra" in my e-mail adress !!

104. Re: CricuitMaker Student Software Flawed?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-07 09:05:29 UTC
From: Leon Heller <leon_heller@hotmail.com>
Message-ID: <40c42fda$0$20515$cc9e4d1f@news-text.dial.pipex.com>
Source record: 25686

"Paul Keinanen" <keinanen@sci.fi> wrote in message
news:6kv7c053ibsj0khqdt1vbkpfeaanhil68s@4ax.com...
> On Sun, 06 Jun 2004 17:59:00 -0500, Ed Bailen <n5kzw@arrl.net> wrote:
>
> >The last issue of QST had a short article on the CircuitMaker Student
> >edition circuit design package. I downloaded it and spent several
> >hours trying various oscillator designs (including the phase shift
> >oscillator discussed in the same issue of QST). I couldn't get any of
> >the designs to oscillate! I was mainly trying Colpitts oscillators.
>
> Typically, an oscillator is just a noise amplifier with some frequency
> selective feedback. In a real oscillator, there is always some wide
> band thermal noise present, which is amplified, some selected
> frequencies are circulated back to the input and reamplified and so
> on. Finally, there is going to be a narrow spectral line and a wide
> band noise floor due to the thermal noise, assuming of course that the
> phase, amplification and feedback loss conditions are correct.
>
> If the simulator does not simulate the thermal noise inherent in all
> resistors and semiconductors in temperatures above absolute zero, it
> is not very likely that the design would oscillate. Inject a very low
> level wide band noise into the amplifying stage and the oscillation
> should start. However, I have never seen the CircuitMaker or how to
> generate a wide band noise signal with it.

Injecting a pulse usually works with SPICE, I've found.

Leon

105. Jameco and substituted parts

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-07 12:02:45 UTC
From: Paul_Morphy <nopaul_morphy2@coolgoose.com>
Message-ID: <FPYwc.19536$Gx4.1124@bgtnsc04-news.ops.worldnet.att.net>
Source record: 25687

I've had good service from Jameco over the years but -- I recently ordered 2N5484 FETs from them. The datasheet they have on their site is the same as Fairchild's, so I figured I would be getting a prime part. If you've used 2N5484s, you know why I wanted that particular part. What they sent, however, was NTE312s. The Idss spec for the NTE312 is 5-15 mA, vs 1-5 mA for the 2N5484. I tested a few of the NTE312s and confirmed the bad news. So beware of Jameco when ordering active parts. You may not get what their Website and catalog say. In the case of the FETs, in a reasonable quantity, Mouser has the Fairchild 2N5484s for the same price.

73,

"PM"

106. Re: Jameco and substituted parts

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-07 12:51:28 UTC
From: John Walton <jdwalton@comcast.net>
Message-ID: <4b6dnYhc4-tw_lnd4p2dnA@comcast.com>
Source record: 25688

I had the same experience with MAX232's -- they were listed as Maxim parts
and a non-Maxim was sent (it works fine, however.)

"Paul_Morphy" <nopaul_morphy2@coolgoose.com> wrote in message
news:FPYwc.19536$Gx4.1124@bgtnsc04-news.ops.worldnet.att.net...
> I've had good service from Jameco over the years but -- I recently ordered
> 2N5484 FETs from them. The datasheet they have on their site is the same
as
> Fairchild's, so I figured I would be getting a prime part. If you've used
> 2N5484s, you know why I wanted that particular part. What they sent,
> however, was NTE312s. The Idss spec for the NTE312 is 5-15 mA, vs 1-5 mA
for
> the 2N5484. I tested a few of the NTE312s and confirmed the bad news. So
> beware of Jameco when ordering active parts. You may not get what their
> Website and catalog say. In the case of the FETs, in a reasonable
quantity,
> Mouser has the Fairchild 2N5484s for the same price.
>
> 73,
>
> "PM"
>
>

107. Re: Awesome app note

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-07 12:52:46 UTC
From: John Walton <jdwalton@comcast.net>
Message-ID: <VcGdnaBDXr2m-VndRVn-uw@comcast.com>
Source record: 25689

In Linear Tech's website they have a section for "Development Tools" --
there is a subheading which lists the ap-notes in numeric order.

"John Miles" <jmiles@pop.removethistomailme.net> wrote in message
news:MPG.1b2c0bdbf4af994c9896ba@news-central.giganews.com...
> In article <r9n4c0ttpdjj3d14lt2t6nudmahl56nt0f@4ax.com>, la8ak@online.no
> says...
> > On Sat, 5 Jun 2004 09:27:51 -0700, John Miles
> > <jmiles@pop.removethistomailme.net> wrote:
> >
> > >http://www.linear-tech.com/pdf/an47fa.pdf
> >
> > John,
> > could you tell me the previous page so I can save the pages, I don't
> > know the procedure from the link given
> >
> > 73
> > Jan-Martin
> >
>
> Someone linked to it on the TekScopes list -- I'm not sure how you'd
> find its originating page, beyond searching Google for "an47fa.pdf".
>
> -- jm
>
> --
> http://www.qsl.net/ke5fx
> Note: My E-mail address has been altered to avoid spam
> --

108. Re: Jameco and substituted parts

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-07 13:18:59 UTC
From: Mark <Mark@markususa.net>
Message-ID: <40C46B41.5F5F764A@markususa.net>
Source record: 25690

Yes, has happened to me too !

If the part can't be substituted, I telephone the order
and specify do not substitute and that works about
9 out of ten times with jameco and mouser.

Mark

Paul wrote:

> I've had good service from Jameco over the years but -- I recently ordered
> 2N5484 FETs from them. The datasheet they have on their site is the same as
> Fairchild's, so I figured I would be getting a prime part. If you've used
> 2N5484s, you know why I wanted that particular part. What they sent,
> however, was NTE312s. The Idss spec for the NTE312 is 5-15 mA, vs 1-5 mA for
> the 2N5484. I tested a few of the NTE312s and confirmed the bad news. So
> beware of Jameco when ordering active parts. You may not get what their
> Website and catalog say. In the case of the FETs, in a reasonable quantity,
> Mouser has the Fairchild 2N5484s for the same price.
>
> 73,
>
> "PM"

109. Re: Jameco and substituted parts

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-07 14:42:22 UTC
From: Lou <FFSTA17NO@SPAMACCESS995.COM>
Message-ID: <N9%wc.1066$ri.92728@dfw-read.news.verio.net>
Source record: 25691

Some times too, the information placed into their computer isn't correct. I ordered some parts for a radio repair once - from a company. They sent me what was "supposed" to be the correct part (SUB), in this case a Transistor.... What I needed was an NPN. I didn't bother to check it, as I was busy and I figured they knew what they were doing. I placed the part in the radio and since it was the only part in that unit I had to replace, I fired it up. Snap, crackle, pop. I ain't talking Rice Krispies. I seen smoke. I knew all the other parts were ok, so I took the transistor back out and looked at it. I looked the number up - personally, which turned out to be a "PNP". WOW. So much for trusting. I called the company, spoke to the tech of that firm. He at first swore it was the cross for what I ordered - while looking at the computer records they had. I said NO, the part I ordered and this was crossed for, is an NPN. This is a PNP. He checked in their cross reference book and then the computer again. He found the computer had the wrong cross type listed. He apologized and corrected it right there and then, then asked me again the part number I needed. I told him. He took care of that, which he said would be free of charge. He then asked if any other parts were damaged - they would send free of cost or if I wanted them to reimburse me labor for my time. I said no to both. It was no big deal, but the right part would be nice. I got it in short order, placed it in and whalah, the set was working. So, that company was very apologetic about the error and willing to make amends. While that may be a somewhat different scenario from "substitutes" as listed below, I guess the caveat here is make sure you check the parts BEFORE you place them in service. It could save some headaches. I learned about the same time to never trust "new" parts. To always check them if possible before placing in the circuit - as I've bought "new" components in stores such as Radio Shack, only to bring them home and find them defective. Those events were in my early years of getting into Electronics. Lessons I've carried through to this day. IF you have enough data available, or maybe to ask in here, you're better off to try to shoot for a couple subs, just in case the company you deal with doesn't have one and maybe not the other - especially listed AS subs. I try to leave nothing to chance anymore. You can't always trust the phone sales help. They go by what is in their computers. Most of them are clueless when it comes to electronics. Some people tend to forget this. IF you find a company that stocks many items of interest, such as Mouser or whoever, you're better off dealing with them to save all the hassle of sending here and there for parts and end up losing time and paying more in shipping than what the damned part or project may be worth. I have 3 companies I deal with basically. The rest I use sparingly. Mouser is one of those I use. For the record, I don't recall the company I got the "wrong" part from as aforementioned. But as I said, they did remedy it.

Lou

"Mark" <Mark@markususa.net> wrote in message
news:40C46B41.5F5F764A@markususa.net...
> Yes, has happened to me too !
>
> If the part can't be substituted, I telephone the order
> and specify do not substitute and that works about
> 9 out of ten times with jameco and mouser.
>
> Mark
>
> Paul wrote:
>
> > I've had good service from Jameco over the years but -- I recently
ordered
> > 2N5484 FETs from them. The datasheet they have on their site is the same
as
> > Fairchild's, so I figured I would be getting a prime part. If you've
used
> > 2N5484s, you know why I wanted that particular part. What they sent,
> > however, was NTE312s. The Idss spec for the NTE312 is 5-15 mA, vs 1-5 mA
for
> > the 2N5484. I tested a few of the NTE312s and confirmed the bad news. So
> > beware of Jameco when ordering active parts. You may not get what their
> > Website and catalog say. In the case of the FETs, in a reasonable
quantity,
> > Mouser has the Fairchild 2N5484s for the same price.
> >
> > 73,
> >
> > "PM"
>

110. WTB:HQ-110A PWR XFMR

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-07 17:13:38 UTC
From: Heytubeguy <heytubeguy@worldnet.att.net>
Message-ID: <6n1xc.44593$_k3.1112978@bgtnsc05-news.ops.worldnet.att.net>
Source record: 25692

Need replacement power transformer for HQ-110A: 230-250 v at 80ma + 5 and
6.3 v . Advise, WS&#65533;E

111. Re: Jameco and substituted parts

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-07 18:27:52 UTC
From: john graesser <graesser@tca.net>
Message-ID: <10c9co0j7ms72fc@corp.supernews.com>
Source record: 25693

"Paul_Morphy" <nopaul_morphy2@coolgoose.com> wrote in message
news:FPYwc.19536$Gx4.1124@bgtnsc04-news.ops.worldnet.att.net...
> I've had good service from Jameco over the years but -- I recently ordered
> 2N5484 FETs from them. The datasheet they have on their site is the same
as
> Fairchild's, so I figured I would be getting a prime part. If you've used
> 2N5484s, you know why I wanted that particular part. What they sent,
> however, was NTE312s. The Idss spec for the NTE312 is 5-15 mA, vs 1-5 mA
for
> the 2N5484. I tested a few of the NTE312s and confirmed the bad news. So
> beware of Jameco when ordering active parts. You may not get what their
> Website and catalog say. In the case of the FETs, in a reasonable
quantity,
> Mouser has the Fairchild 2N5484s for the same price.

The last time I ordered from Jameco was years ago, back in the Z80 cpu days,
I ordered a Z80B (6mhz cpu) and they sent me a Z80C (4mhz). Never ordered
from them again. Buyer beware.
thanks, John.
KC5DWD

112. EXCELLENT price for 1-4 Layers prototype PCB

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-07 20:02:49 UTC
From: tigeryesh@hotmail.com
Message-ID: <e04d9f77.0406071202.114fee5f@posting.google.com>
Source record: 25694

NOW Gold Phoenix offers an EXCELLENT price for 1-4 Layers prototype
PCB.
(Our website http://ca.goldphoenixpcb.com or http://24.226.35.46)

ONLY US65 include shipping (Lead time 5 days, FedEx or UPS need 2-3
business days from China to North America)

1.MULTI-Designs ON A SIGNAL PANEL IS NOT ALLOWED
2.NO LIMIT ON THE NUMBER OF VIAS
3.MAXIMUM ONE INNER CUT PER BOARD
4.FREE SETP AND REPEAT SERVICE IS PROVIDE, SCORE LINES IS ALLOWED
5.1-2 Layers ,FR4 material,0.062",1oz Copper.
6.Minimum hole size 20mil, minimum clearance 8mil.
7.Green solder mask, white silkscreen
8.Total area of all boards combined less than 155inch sq. Maximum
size per board 10X14.5inch.
9.ONLY Gerber274X and NC Drill files are accepted

For example, If the area of your boards is 10 inch sq, US65 Gold
Phoenix will make 15pcs for you!
If you just want 1pcs the maximum size of your board is 10"x14.5"

10. 4 Layers PCB,Free shipping,Free Testing:

US200 155inch sq
US185 100inch sq
US165 75 inch sq

For example, If the area of your boards is 10 inch sq, US200 Gold
Phoenix will make 15pcs 4 Layers
board for you! If you just want 1pcs the maximum size of your board is
10"x14.5

113. Re: Looking for spare parts for HP 8558B Spectrum Analyzer

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-07 20:09:53 UTC
From: &#65533;ke Stenberg <noemail@noemail.se>
Message-ID: <ca2i2j$4pf$1@hudsucker.umdac.umu.se>
Source record: 25695
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design
Body handling: HTML body converted to readable text

The mainframe is 182T.

Ake

"Pete KE9OA" skrev i meddelandet
news:YHxvc.24603$_k3.616927@bgtnsc05-news.ops.worldnet.att.net...
> Which mainframe? The 853 or the 182T?
>
> Pete
>
> "&#65533;ke Stenberg" wrote in message
> news:c99to1$h3e$1@hudsucker.umdac.umu.se...
> > Hi,
> >
> > I'm looking for spare parts for a HP 8558B Spectrum Analyzer. I need the
> > following: complete reference level knob, fine tuning knob, and front
> screen
> > for CRT.
> >
> > 73 de &#65533;ke SM2FNI
> >
> >
> > (Jag s&#65533;ker reservdelar till en spectrum Analyzer HP8558B. Jag beh&#65533;ver
> > f&#65533;ljande: logreferens ratten och fine tuning ratten.
> > Dessutom beh&#65533;ver jag frontsk&#65533;rmen p&#65533; CRT r&#65533;ret.)
> >
> >
>
>

114. Re: Jameco and substituted parts

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-07 20:48:19 UTC
From: tdonaly@aol.com
Message-ID: <20040607164819.16194.00000720@mb-m15.aol.com>
Source record: 25696

john graesser wrote,
>
>The last time I ordered from Jameco was years ago, back in the Z80 cpu days,
>I ordered a Z80B (6mhz cpu) and they sent me a Z80C (4mhz). Never ordered
>from them again. Buyer beware.
>thanks, John.
>KC5DWD
>

Jameco is a pretty good company. I've never had any problems with them.
I don't suppose you bothered to let them know they sent you the wrong
part. Anyone can make a mistake.
73,
Tom Donaly, KA6RUH

115. Re: CricuitMaker Student Software Flawed?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-07 22:21:03 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <ca2psi$f49$1@newshost.mot.com>
Source record: 25597

"Leon Heller" <leon_heller@hotmail.com> wrote in message
news:40c42fda$0$20515$cc9e4d1f@news-text.dial.pipex.com...
> "Paul Keinanen" <keinanen@sci.fi> wrote in message
> news:6kv7c053ibsj0khqdt1vbkpfeaanhil68s@4ax.com...
> > On Sun, 06 Jun 2004 17:59:00 -0500, Ed Bailen <n5kzw@arrl.net> wrote:
> >
> > >The last issue of QST had a short article on the CircuitMaker Student
> > >edition circuit design package. I downloaded it and spent several
> > >hours trying various oscillator designs (including the phase shift
> > >oscillator discussed in the same issue of QST). I couldn't get any of
> > >the designs to oscillate! I was mainly trying Colpitts oscillators.
> >
> > Typically, an oscillator is just a noise amplifier with some frequency
> > selective feedback. ...
> >
> > If the simulator does not simulate the thermal noise

I do not believe this is necessary. The normal charge-up of any coupling caps will get you "off center" at the start. On PSpice ver 9 one of my students "couldn't get an oscillator to go". I lenghtend the simulation time and found that it took longer than he had set for the transient analysis.
Out of the box on PSpice I got both a 555 and Colpitts to fly. I can't speak to CircuitMaker, but there may be analysis set-up parameters such as the aforementioned initial condition which may be the key. PSpice also has something about "skipping" an initial transient state/solution which I haven't experimented with to comment further, but could be a consideration. Watch the options...

--
Steve N, K,9;d, c. i My email has no u's.

116. Re: CricuitMaker Student Software Flawed?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-08 00:51:20 UTC
From: Giganews <dwbarabash@comcast.net>
Message-ID: <GYidnW6W1LUMkFjdRVn-vg@comcast.com>
Source record: 25598

I have found that that generating a narrow pulse with a current source works well for me. The oscillator gets going rather quickly because the narrow pulse has a wide frequency spectrum and since the ideal current source is an open it doesn't impact the circuit operation.

Darrell VE6DWB

"Paul Keinanen" <keinanen@sci.fi> wrote in message news:6kv7c053ibsj0khqdt1vbkpfeaanhil68s@4ax.com...
> On Sun, 06 Jun 2004 17:59:00 -0500, Ed Bailen <n5kzw@arrl.net> wrote:
>
> >The last issue of QST had a short article on the CircuitMaker Student
> >edition circuit design package. I downloaded it and spent several
> >hours trying various oscillator designs (including the phase shift
> >oscillator discussed in the same issue of QST). I couldn't get any of
> >the designs to oscillate! I was mainly trying Colpitts oscillators.
>
> Typically, an oscillator is just a noise amplifier with some frequency
> selective feedback. In a real oscillator, there is always some wide
> band thermal noise present, which is amplified, some selected
> frequencies are circulated back to the input and reamplified and so
> on. Finally, there is going to be a narrow spectral line and a wide
> band noise floor due to the thermal noise, assuming of course that the
> phase, amplification and feedback loss conditions are correct.
>
> If the simulator does not simulate the thermal noise inherent in all
> resistors and semiconductors in temperatures above absolute zero, it
> is not very likely that the design would oscillate. Inject a very low
> level wide band noise into the amplifying stage and the oscillation
> should start. However, I have never seen the CircuitMaker or how to
> generate a wide band noise signal with it.
>
> Paul OH3LWR
>

117. FA: 6SK7 - New in Boxes

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-08 01:44:44 UTC
From: Bob WA2JAJ <bb_62_nj@yahoo.com>
Message-ID: <Xns9501DD4859A02bb62njyahoocom@167.206.3.2>
Source record: 25599

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=2247404633

118. Re: EXCELLENT price for 1-4 Layers prototype PCB

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-08 02:05:52 UTC
From: "Dr. Anton T. Squeegee" <SpammersArePondScum@dev.null>
Message-ID: <MPG.1b2ebee0bd550f65989733@192.168.42.131>
Source record: 25600

In article <e04d9f77.0406071202.114fee5f@posting.google.com>,
tigeryesh@hotmail.com says...

> NOW Gold Phoenix offers an EXCELLENT price for 1-4 Layers prototype
> PCB.

<snip badly-spelled ad>

Now why would I want to go with a completely unknown and unproven
(to me, at least) firm, one that can't even spell parts of their
advertisement right, when I can pay just a bit more and get local
service from a US-based company that I know won't have any trouble
turning the boards I need around?

BTW... *PLONK!*

--
Dr. Anton T. Squeegee, Director, Dutch Surrealist Plumbing Institute.
(Known to some as Bruce Lane, ARS KC7GR,
kyrrin (a/t) bluefeathertech[d=o=t]calm -- www.bluefeathertech.com
"If Salvador Dali had owned a computer, would it have been equipped
with surreal ports?"

119. Re: B&W HF Wideband Folded Dipole and Isotron

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-08 02:32:21 UTC
From: "Watson A.Name - \"Watt Sun, the Dark Remover\"" <NOSPAM@dslextreme.com>
Message-ID: <10ca92amr9jfm4d@corp.supernews.com>
Source record: 25601
Cross-posted to: alt.binaries.schematics.electronic,alt.radio.amateur,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

"Dave Platt" <dplatt@radagast.org> wrote in message
news:10c4rd28lf8p729@corp.supernews.com...
> In article <Rnswc.22641$Tn6.50@newsread1.news.pas.earthlink.net>,
> Rev. Robert P. Chrysafis <kc8gpd28@nospam.earthlink.net> wrote:
>
> >I am looking for homebrew designs for the Barker & Williamson 90ft or
180ft
> >1.8-30MHz Broadband Folded Dipole.
>
> http://www.hard-core-dx.com/nordicdx/antenna/wire/t2design.html
>
> The consensus about these antennas seems to be that they're very
> convenient, but can be quite inefficient if you're using them on
> frequencies well away from those where the dipole is resonant.
>
> > also intersted in desgins based on the
> >isotron.
>
> I don't have a good sense of how the Isotron is _supposed_ to work
> (according to its manufacturer). What little I've heard of its actual
> use in the field suggests to me that it, like many other "miracle"
> short vertical antennas, is actually very dependent on radiation from
> its coaxial feedline and its support mast. The Isotron itself seems
> to act less as a radiator, and more as a sort of end-of-feedline
> transmatch between the 50-ohm coax (interior) and the mast and coax
> braid. Trying to reproduce one, homebrew, and to get good performance
> thereby seems to me to be a recipe for severe frustration.

I remember loading a ham friend's Viking Ranger (60 to 80W) into a 75
ohm dipole without a balun, and then squeezing the pickle and being
introduced to a rather nasty fellow called R.F. Burns. :-(It's not
nice to have a coax that radiates!

> --
> Dave Platt <dplatt@radagast.org>
AE6EO
> Hosting the Jade Warrior home page:
http://www.radagast.org/jade-warrior
> I do _not_ wish to receive unsolicited commercial email, and I will
> boycott any company which has the gall to send me such ads!

120. Coil

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-08 04:54:57 UTC
From: Bill Hennessy <elhen704@yahoo.com>
Message-ID: <40c546a6$0$27083$9a6e19ea@news.newshosting.com>
Source record: 25602

Is their a set rule on how meny turns of the antenna coil is to the tuneing coil? And would it depend on if you wind it over or next to the tuneing coil?

121. Re: CricuitMaker Student Software Flawed?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-08 05:52:19 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <e1kac0t383l1e735kp3gbjljaf75rku0v7@4ax.com>
Source record: 25603

On Mon, 7 Jun 2004 17:21:03 -0500, "Steve Nosko"
<suteuve.nosukowicuz@moutouroula.com> wrote:

> Out of the box on PSpice I got both a 555 and Colpitts to fly.

The 555 should start unconditionally, since it is based of the RC time constant and two comparator levels. Thus, it should not matter, what the initial charge in C is, since sooner or later one of the comparators will change state.

A startup transient in the Colpitts may very well start the oscillation, since the transient is rich of harmonics and if one of the harmonics is connected back with sufficient gain through the frequency selective feedback, the oscillation should start.

Paul OH3LWR

122. gibert cell in glass?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-08 06:26:57 UTC
From: eternalsquire@comcast.net
Message-ID: <904dab11.0406072226.7a7a4dcf@posting.google.com>
Source record: 25604

Hi,

Has anyone ever implemented a gilbert cell mixer using valves instead
of FETs?
I'm considering this instead of using the increasingly rare and costly
heptode mixer.

Thanks,

The Eternal Squire
(yes, I have a call, I just like my privacy)

123. any spice models for 1S5 or other battery tubes?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-08 06:29:28 UTC
From: eternalsquire@comcast.net
Message-ID: <904dab11.0406072229.2c07ecbd@posting.google.com>
Source record: 25605

The subject says it all. Anyone simulating RF rather than audio tubes
for 45-65 Volt B+?

thanks in advance

The Eternal Squire

124. Re: gibert cell in glass?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-08 07:03:49 UTC
From: Leon Heller <leon_heller@hotmail.com>
Message-ID: <40c564d5$0$20513$cc9e4d1f@news-text.dial.pipex.com>
Source record: 25606

"The Eternal Squire" <eternalsquire@comcast.net> wrote in message
news:904dab11.0406072226.7a7a4dcf@posting.google.com...
> Hi,
>
> Has anyone ever implemented a gilbert cell mixer using valves instead
> of FETs?
> I'm considering this instead of using the increasingly rare and costly
> heptode mixer.

There was some sort of dual tetrode (6164?) that used to be used in high
performance mixers for valve radios.

Leon

125. Re: DC saturation for ferrite cores

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-08 07:56:08 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10cas8v2hgrh658@corp.supernews.com>
Source record: 25607

I'd like to learn a bit more about this, since all the analyses I've seen have assumed a uniform flux density in the core material. And I've always assumed that this is a good assumption for high permeability materials at least.

According to conventional analysis, for a given permeability, current, and number of turns, the flux density is inversely proportional to the magnetic path length. For a toroidal core, this path length is taken to be pi times the average of core ID and OD, so the net result is that the flux density will be higher in a bead than a larger core, all else being equal. But it's due to the shorter bead magnetic path length rather than the distance of the core from the wire going through the middle. Other core shapes, such as EI and pot cores, also obey the path length rule.

Other parameters, such as the amount of inductance or impedance per turn squared, also depend on the path length, as well as the core permeability and the cross sectional area of the magnetic path. So if you hold one of these other parameters constant as you vary the core size or shape, you can reach different conclusions about the effect of the variations.

Roy Lewallen, W7EL

Rick Karlquist N6RK wrote:

> I have observed this phenomenon as well but it seems
> to be mainly an issue with beads or shapes with small
> holes. The bead magnetizes from the inside out.
> Larger "toroids" with sizeable center holes don't magnetize
> as easily. This make sense physics-wise since Ampere's
> law says H is inversely proportional to radius.
>
> Rick N6RK
>
>

126. Re: Calibratable Field Strength Meter?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-08 08:07:47 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10casus6usbqi68@corp.supernews.com>
Source record: 25608

I'm not going to check you gentlemen's math -- it sounds like you've gone through that pretty thoroughly. But I'll point out that you're calculating the field strength from an isotropic source in free space. Let me remind the readers that this is the absolute lowest possible gain an efficient antenna can have. A dipole in free space produces a field strength about 2 dB greater than this in some direction; an isotropic source over ground produces a field strength 3 dB greater. So this rough estimate of field strength is always lower than the field that a real antenna can produce in some direction.

RF Exposure and You (Hare, ARRL) has some excellent information on how to approximate field strength of real antennas. And of course modeling programs do the same thing. But under no circumstances would I depend on either one, or even better-than-average amateur measurements, to make any determination that might impact human life or safety.

Roy Lewallen, W7EL

Fred McKenzie wrote:

> << Tom-
>
> You caught me!
>
> I don't have a calculator handy, but it seems to me that the correct formula
> yields an even lower power when spread over three times the area.
> >>
>
>
> Caught again!
>
> I took another look at my earlier calculations and found that not only did I
> have the wrong formula for the area of a sphere, I had my equation upside down!
> I ended up with something like watts per square meter equals square meters per
> watt. Yes, the power is spread over a greater area, but that did not
> compensate for the really stupid mistake.
>
> So, if one volt per meter equals 2.7 milliWatts per square Meter, that field
> strength would be generated by a five watt handheld radio at a distance of 15.4
> Meters, which is about 50 Feet. This is sounding serious unless the
> defibrillator has a greater tolerance. I certainly hope it does, since we are
> often irradiated by passing mobile radios running 50 watts or so, at closer
> distances than 50 feet.
>
> Lets see - 50 watts is ten dB greater, so the distance would be about 3 times

> as great as 5 watts, or about 150 feet for one volt per meter. Or, maybe I
> should just keep my mouth shut to keep from screwing up again!
>
> 73, Fred, K4DII
>

127. Re: any spice models for 1S5 or other battery tubes?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-08 08:32:57 UTC
From: Joe McElvenney <ximac@btinternet.com>
Message-ID: <VA.00000005.00474b28@btinternet.com>
Source record: 25609

Hi,

You won't find what you want here but you might find how to do
it yourself, especially if you have a good set of characteristics
for the tube in question.

http://www.normankoren.com/Audio/Tubemodspice_article.html

Cheers - Joe

128. Re: any spice models for 1S5 or other battery tubes?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-08 09:56:10 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <_2gxc.41962$DV4.12157@clgrps13>
Source record: 25610

Contact Robert Casey (WA2ISE. IIRC his call) on rec.audio.tubes - he makes
them for 3f4 spice (Circuit Maker Student).

--
Gregg
It's probably useful, even if it can't be SPICE'd
http://geek.scorpiorising.ca

129. Re: gibert cell in glass?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-08 10:00:16 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <Q6gxc.42020$DV4.10282@clgrps13>
Source record: 25611

6U8 or 6X8 are a dime a dozen and great mixers. Also 6BL8, 6EA8 are good
up to 220MHz. 6J6 goes to 600MHz.

I have tried to develop "glass Gilberts", but tubes are too linear.

--
Gregg
It's probably useful, even if it can't be SPICE'd
http://geek.scorpiorising.ca

130. Re: EXCELLENT price for 1-4 Layers prototype PCB

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-08 10:27:44 UTC
From: W3JDR <joe@roccis.com>
Message-ID: <Awgxc.14952$9g6.5560@nwrdny03.gnilink.net>
Source record: 25612

> Now why would I want to go with a completely unknown and unproven
> (to me, at least) firm, one that can't even spell parts of their
> advertisement right, when I can pay just a bit more and get local
> service from a US-based company that I know won't have any trouble
> turning the boards I need around?
>

I don't know where you're going to pay "just a bit more" and get anywhere near as much as these folks are promising. As far as US-based companies are concerned, I've been using PCB Express (www.pcbexpress.com). Their deal for a similar basket of features is about $150 for 100 sq in. Being a US company doesn't seem to have made them any better either...the last time I used them, I got 3 defective boards out of a lot of 10.

These guys want $65 for a 155 sq in panel. The next closest deal I know of is Olimex, a European company (www.olimex.com), and they want $105 for a 100 sq in panel. Thats a price difference of 2.5 to 1. I don't care how good they can spell, as long as their quality and delivery are reliable and good.

Personally, for $65, I'm going to give it a try on the next prototype board I send out for fab. I'll let you know how it works out.

Joe
W3JDR

131. Re: gibert cell in glass?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-08 13:49:52 UTC
From: farhan@phonestack.com
Message-ID: <fcc11bcf.0406080549.786d4be4@posting.google.com>
Source record: 25613

the greatest valve mixer ever was based on 7360. a dual beam tetrode specifically meant for being a high dynamic range mixer.

you can also try making a commutation mixer with four triodes.

- farhan

132. Where to get project box for USB/Serial Cable?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-08 14:17:09 UTC
From: localbuyer@yahoo.com
Message-ID: <1adb15bb.0406080617.fa266b2@posting.google.com>
Source record: 25614

Hi:

I am interested in using DLP-USB232M board (http://www.dlpdesign.com/usb/usb232.html) to convert a serial port interface to USB. Does anyone know where to find the small box that can be used to house the board? The board size is about 1.5 x .7 x .52 inch.

Thanks all

133. Re: Coil

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-08 15:42:46 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10cbnjbge5hfv32@corp.supernews.com>
Source record: 25615

Bill Hennessy wrote:

> Is their a set rule on how meny turns of the antenna coil is to the
> tuneing coil? And would it depend on if you wind it over or next to the
> tuneing coil?

Yes, it makes a difference if it's over vs. next to the tuning coil,
because your coupling will change with distance.

No there isn't a set rule (or shouldn't be) -- you should design your
transformer for the desired input impedance of the devices you're going
into, the intended input impedance of your radio, etc., etc.

Ideally you'd decide on what kind of noise & intermodulation performance
you wanted from your set, decide what impedance your 1st stage should
see, and design your antenna coil from that.

Realistically you can just look for similar radios to the one you're
wanting to build and use an average of their input coils as a starting
point, then dink with it if you feel motivated.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

134. Re: Where to get project box for USB/Serial Cable?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-08 15:51:26 UTC
From: j999w@aol.com
Message-ID: <20040608115126.13841.00000551@mb-m27.aol.com>
Source record: 25616

Try Radio Shack. If not there, then look through this list:

http://www.ac6v.com/components.htm

73,

jw
K9RZZ

135. Re: Coil

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-08 17:24:54 UTC
From: k7itm@aol.com
Message-ID: <3200347.0406080924.d3ca47c@posting.google.com>
Source record: 25617

Bill Hennessy <elhen704@yahoo.com> wrote in message
news:<40c546a6$0$27083$9a6e19ea@news.newshosting.com>...
> Is their a set rule on how meny turns of the antenna coil is to the
> tuneing coil? And would it depend on if you wind it over or next to the
> tuneing coil?

There isn't a set rule...it depends on lots of factors in the design,
if you really want to optimize it, and it depends in particular on the
antenna impedance. Since that's a variable, it's not unusual to make
the coupling variable. You can do that by making the coupling coil
rotatable, making it so it can be moved closer or further from the
"tuning coil", or by putting a variable capacitor in series between
the antenna connection and the link ("antenna") coil.

If you lower the coupling, you will have a higher loaded Q and
narrower bandwidth, up to the limit of the tank coil and whatever is
loading it. Some of that can be a good thing, but too much makes
tuning too touchy, and for AM broadcast work, could even reduce the
bandwidth of the received signal, if you use a high Q tank coil. If
you couple too tightly, you can get too broad a response.

Cheers,
Tom

136. Re: Coil

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-08 17:54:29 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <ca4ugk$g81$1@titan.btinternet.com>
Source record: 25618

"Bill Hennessy" wrote
> Is their a set rule on how meny turns of the antenna coil is to the
> tuneing coil? And would it depend on if you wind it over or next to the
> tuneing coil?

==========

There are no rules except normal network analysis rules.

The generator is the antenna with its internal impedance Ra - jXa.

Generator volts is field strength times effective height of antenna.

The primary coil has optimum inductance when it resonates with -Xa.

The secondary coil inductance resonates with its parallel tuning capacitor
at the same frequency.

The coefficient of coupling beween the two coils is set to its optimum value
of -

K = 1 / Sqrt(Q1 * Q2) or somewhat greater.

where Q1 is the primary circuit Q taking antenna resistance Ra into account,
and Q2 is the Q of the secondary circuit coil.

So everything depends on frequency, antenna length, ground loss resistance,
coil Q, coupling coefficient, and value of tuning capacitor. The
calculations are quite simple.

For the medium waves and a 40 feet antenna, the primary coil has a
wave-winding of many turns spaced a little apart from the secondary coil.
The coupling is fairly loose, K about 0.1

The secondary coil is wound on the same former and is usually a
single-layer, high Q solenoid. But everything is very non-critical and
almost anything will work. Over the wide medium wave band it is impossible
to keep anything near optimum. Just find some wire and start winding.

Reg, G4FGQ

137. Re: gibert cell in glass?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-08 18:37:37 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <RHnxc.414$8R6.137@clgrps12>
Source record: 25619

Behold, Ashhar Farhan signalled from keyed 4-1000A filament:

> the greatest valve mixer ever was based on 7360.

<snip>

How true!!

--
Gregg
It's probably useful, even if it can't be SPICE'd
http://geek.scorpiorising.ca

138. Re: gibert cell in glass?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-08 22:51:45 UTC
From: averyfineman@aol.com
Message-ID: <20040608185145.07368.00000210@mb-m24.aol.com>
Source record: 25620

In article <904dab11.0406072226.7a7a4dcf@posting.google.com>,
eternalsquire@comcast.net (The Eternal Squire) writes:

>Has anyone ever implemented a gilbert cell mixer using valves instead
>of FETs?
>I'm considering this instead of using the increasingly rare and costly
>heptode mixer.

To do this, one needs a minimum of three triodes, the top pair
being (essentially) a differential amplifier, the bottom being a
configured constant-current source replacing a moderately-
high common cathode resistor for the differential pair.

That's a LOT of circuit work where a single dual triode could
(and has) work just as well. Connect it as a differential pair
and put the signal in one side, the LO in the other.

Any valve that runs its control grid into the positive region is
going to be operating in a non-linear region and will therefore
"mix" well enough to do some heterodyning.

The name "Gilbert cell" got there in later integrated circuit
times to describe a particular arrangement of BJT junctions
to do mixing or AGC actions. Valve circuitry had other
names and worked for decades as mixers quite will without
fancy names. :-)

LenAnderson@ieee.org

139. Re: any spice models for 1S5 or other battery tubes?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-08 23:30:20 UTC
From: averyfineman@aol.com
Message-ID: <20040608193020.28360.00000229@mb-m28.aol.com>
Source record: 25621

In article <904dab11.0406072229.2c07ecbd@posting.google.com>,
eternalsquire@comcast.net (The Eternal Squire) writes:

>The subject says it all. Anyone simulating RF rather than audio tubes
>for 45-65 Volt B+?
>
>thanks in advance

I've simulated a few tubes just by making a dependent constant-current source for the plate plus a fixed resistor for the plate resistance in parallel to it. The dependent constant-current source would be referred to the voltage across a resistance or other component (see the particular SPICE program). That assumes linear amplification in the tube.

If there's a real need of simulating full plate characteristics, you would have to get a SPICE package that lets you describe the plate characteristics as an equation and then plug that equation into the net list. Not at all easy and you would need old tube datasheets.

Those same old tube datasheets would yield gm and rp for a particular supply voltage and that can be used for small-signal amplification in pencil-and-paper plus calculator "analysis." Figure the rp as a fixed resistance with the RF plate load and the gm as the constant current across that entire RF load. Voltage amplification is then the product of gm times RF load.

LenAnderson@ieee.org

140. Re: gibert cell in glass?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-09 00:15:16 UTC
From: et472@FreeNet.Carleton.CA
Message-ID: <ca5kqk$mg7$1@freenet9.carleton.ca>
Source record: 25622

Avery Fineman (averyfineman@aol.com) writes:
> In article <904dab11.0406072226.7a7a4dcf@posting.google.com>,
> eternalsquire@comcast.net (The Eternal Squire) writes:
>
>>Has anyone ever implemented a gilbert cell mixer using valves instead
>>of FETs?
>>I'm considering this instead of using the increasingly rare and costly
>>heptode mixer.
>
> To do this, one needs a minimum of three triodes, the top pair
> being (essentially) a differential amplifier, the bottom being a
> configured constant-current source replacing a moderately-
> high common cathode resistor for the differential pair.
>
> That's a LOT of circuit work where a single dual triode could
> (and has) work just as well. Connect it as a differential pair
> and put the signal in one side, the LO in the other.
>
> Any valve that runs its control grid into the positive region is
> going to be operating in a non-linear region and will therefore
> "mix" well enough to do some heterodyning.
>
> The name "Gilbert cell" got there in later integrated circuit
> times to describe a particular arrangement of BJT junctions
> to do mixing or AGC actions. Valve circuitry had other
> names and worked for decades as mixers quite will without
> fancy names. :-)
>
> LenAnderson@ieee.org

But the "Gilbert Cell" mixer also got by for a good long time without
the fancy name.

Nobody used the term in the early seventies when the MC1496 came along.
It was just a double balanced mixer. It was the late eighties when I
started hearing the term, in reference to the NE602, though suddenly
decades of the same circuit was suddenly a Gilbert Cell.

I know I mentioned this at one time in one of the newsgroups, and
there was an explanation, but I can't remember what it was.

Michael VE2BVW

141. Re: gibert cell in glass?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-09 01:36:07 UTC
From: Ken Scharf <wa2mzeNOTTHIS@bellsouth.net>
Message-ID: <JLtxc.1380$JF6.1067@bignews5.bellsouth.net>
Source record: 25623

Gregg wrote:
> Behold, Ashhar Farhan signalled from keyed 4-1000A filament:
>
>
>>the greatest valve mixer ever was based on 7360.
>
>
> <snip>
>
> How true!!
>
There were also some tv tubes used in chroma demodulators
that were sorta 7360 ish. The 6AR8 for one, I know there
were a few others.

BTW you had to use mu-metal shields on these for best
results.

142. Re: Jameco and substituted parts

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-09 01:44:19 UTC
From: Ken Scharf <wa2mzeNOTTHIS@bellsouth.net>
Message-ID: <BPtxc.2109$LC3.1303@bignews2.bellsouth.net>
Source record: 25624

Tdonaly wrote:
> john graesser wrote,
>
>>The last time I ordered from Jameco was years ago, back in the Z80 cpu days,
>>I ordered a Z80B (6mhz cpu) and they sent me a Z80C (4mhz). Never ordered
>
>>from them again. Buyer beware.
>
>>thanks, John.
>>KC5DWD
>>
>
>
> Jameco is a pretty good company. I've never had any problems with them.
> I don't suppose you bothered to let them know they sent you the wrong
> part. Anyone can make a mistake.
> 73,
> Tom Donaly, KA6RUH
>
>
Last time I ordered from Jameco was when they had a closeout sale on
some discontinued parts real cheap.. I got about two dozen CA3028's
intended for a future project. They had cut, formed leads to plug into
an 8 pin dip socket, otherwise prime. The're still in my parts bin
and will probably get used in a rig I'm designing.

As far as computer stuff goes, Jameco is about 2 years behind the state
of the art as far as what they have to sell (anybody STILL building
Pentium II computers, you can get your mother boards at Jameco!).

143. Re: B&W HF Wideband Folded Dipole and Isotron

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-09 02:52:50 UTC
From: Mike Coslo <mcoslo@adelphia.net>
Message-ID: <IMmdnX9GEJgc5lvdRVn-ig@adelphia.com>
Source record: 25625
Cross-posted to: alt.binaries.schematics.electronic,alt.radio.amateur,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

Watson A.Name - "Watt Sun, the Dark Remover" wrote:
> "Dave Platt" <dplatt@radagast.org> wrote in message
> news:10c4rd28lf8p729@corp.supernews.com...
>
>>In article <Rnswc.22641$Tn6.50@newsread1.news.pas.earthlink.net>,
>>Rev. Robert P. Chrysafis <kc8gpd28@nospam.earthlink.net> wrote:
>>
>>
>>>I am looking for homebrew designs for the Barker & Williamson 90ft or
>
> 180ft
>
>>>1.8-30MHz Broadband Folded Dipole.
>>
>>http://www.hard-core-dx.com/nordicdx/antenna/wire/t2design.html
>>
>>The consensus about these antennas seems to be that they're very
>>convenient, but can be quite inefficient if you're using them on
>>frequencies well away from those where the dipole is resonant.
>>
>>
>>> also intersted in desgins based on the
>>>isotron.
>>
>>I don't have a good sense of how the Isotron is _supposed_ to work
>>(according to its manufacturer). What little I've heard of its actual
>>use in the field suggests to me that it, like many other "miracle"
>>short vertical antennas, is actually very dependent on radiation from
>>its coaxial feedline and its support mast. The Isotron itself seems
>>to act less as a radiator, and more as a sort of end-of-feedline
>>transmatch between the 50-ohm coax (interior) and the mast and coax
>>braid. Trying to reproduce one, homebrew, and to get good performance
>>thereby seems to me to be a recipe for severe frustration.
>
>
> I remember loading a ham friend's Viking Ranger (60 to 80W) into a 75
> ohm dipole without a balun, and then squeezing the pickle and being
> introduced to a rather nasty fellow called R.F. Burns. :-(It's not
> nice to have a coax that radiates!

Yoiks! s there a translation issue here? Hopefully the old pickle is
okay after that abuse! ;^)

- Mike KB3EIA -

144. Re: gibert cell in glass?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-09 03:38:51 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10cd1hu9rjcr91e@corp.supernews.com>
Source record: 25626

Ken Scharf wrote:

> Gregg wrote:
>
>> Behold, Ashhar Farhan signalled from keyed 4-1000A filament:
>>
>>
>>> the greatest valve mixer ever was based on 7360.
>>
>>
>>
>> <snip>
>>
>> How true!!
>>
> There were also some tv tubes used in chroma demodulators
> that were sorta 7360 ish. The 6AR8 for one, I know there
> were a few others.
>
> BTW you had to use mu-metal shields on these for best
> results.

And if you're going to design anything new, the 7360 is on sale for only $27 a pop (down from $49!) while the 6AR8 is about $5.

Four diodes and a couple of ferrite cores, on the other hand...

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

145. Re: gibert cell in glass?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-09 04:05:16 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <00wxc.864$8R6.150@clgrps12>
Source record: 25627

Behold, Ken Scharf signalled from keyed 4-1000A filament:

> Gregg wrote:
>> Behold, Ashhar Farhan signalled from keyed 4-1000A filament:
>>
>>
>>>the greatest valve mixer ever was based on 7360.
>>
>>
>> <snip>
>>
>> How true!!
>>
> There were also some tv tubes used in chroma demodulators that were
> sorta 7360 ish. The 6AR8 for one, I know there were a few others.
>
> BTW you had to use mu-metal shields on these for best results.

Hi Ken,

I have experimented with those - their noisy as stink above 4MHz :-(

--
Gregg
It's probably useful, even if it can't be SPICE'd
http://geek.scorpiorising.ca

146. Re: gibert cell in glass?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-09 04:21:23 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10cd424r3bs1a2d@corp.supernews.com>
Source record: 25628

Some time ago, Barrie Gilbert, for whom the "Gilbert cell" is named, gave a talk at a local ham club. He began by showing a copy of the patent for the "Gilbert cell", and emphatically pointed out that his name isn't on it. As he explained, he didn't invent the circuit nor did he have anything to do with its invention. At the time it was patented, he was an application engineer, and he wrote a lengthy article in one of the trade magazines about the circuit and its applications (and giving proper credit to the inventor). Shortly after that, through no action of his own, someone dubbed it the "Gilbert cell". The name stuck, and Barrie has spent the time since trying to straighten out the record -- without success. As far as I know, he gives the explanation every time he presents a talk. Ironically, I don't remember the name of the actual inventor of this very useful circuit -- it's in my notes from that talk, buried somewhere.

Barrie is an engineer at Analog Devices, and the chief designer of many of their advanced analog products. He's an exceptionally talented engineer, a real gentleman, and a humble and honest person. But NOT the inventor of the "Gilbert cell" -- as he's the first one to point out.

Roy Lewallen, W7EL

Michael Black wrote:
>
> But the "Gilbert Cell" mixer also got by for a good long time without
> the fancy name.
>
> Nobody used the term in the early seventies when the MC1496 came along.
> It was just a double balanced mixer. It was the late eighties when I
> started hearing the term, in reference to the NE602, though suddenly
> decades of the same circuit was suddenly a Gilbert Cell.
>
> I know I mentioned this at one time in one of the newsgroups, and
> there was an explanation, but I can't remember what it was.
>
> Michael VE2BVW
>

147. Re: gibert cell in glass?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-09 04:27:49 UTC
From: eternalsquire@comcast.net
Message-ID: <904dab11.0406082027.2a6909a5@posting.google.com>
Source record: 25629

So if the Gilbert cell is simply a differential pair on top of a
constant current source, and you are advocating only the differential
pair, then I suppose you are advocating the equivalent of a Gilbert
cell with no current source.

Someone had mentioned that I should be using a silicon diode mixer, but that's
not the point... I want my designs to be all battery tubes (plate 25-60
volt), so that the gear can be portable and also withstand electromagnetic
pulse.

The 7360 and 6AR8 require too much plate voltage.

Now from what I understand, the passive double balanced mixer has the best
port isolation, which makes it superior to the Gilbert cell for avoiding
spurs. On the other hand, the Gilbert cell has conversion gain but is more
vulnerable to spurs. So I wonder if the better answer is to build a DBM in
glass, or the differential pair?

The Eternal Squire

averyfineman@aol.com (Avery Fineman) wrote in message
news:<20040608185145.07368.00000210@mb-m24.aol.com>...
> In article <904dab11.0406072226.7a7a4dcf@posting.google.com>,
> eternalsquire@comcast.net (The Eternal Squire) writes:
>
> >Has anyone ever implemented a gilbert cell mixer using valves instead
> >of FETs?
> >I'm considering this instead of using the increasingly rare and costly
> >heptode mixer.
>
> To do this, one needs a minimum of three triodes, the top pair
> being (essentially) a differential amplifier, the bottom being a
> configured constant-current source replacing a moderately-
> high common cathode resistor for the differential pair.
>
> That's a LOT of circuit work where a single dual triode could
> (and has) work just as well. Connect it as a differential pair
> and put the signal in one side, the LO in the other.
>
> Any valve that runs its control grid into the positive region is
> going to be operating in a non-linear region and will therefore
> "mix" well enough to do some heterodyning.
>
> The name "Gilbert cell" got there in later integrated circuit
> times to describe a particular arrangement of BJT junctions
> to do mixing or AGC actions. Valve circuitry had other

> names and worked for decades as mixers quite will without
> fancy names. :-)
>
> LenAnderson@ieee.org

148. Re: gibert cell in glass?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-09 04:58:01 UTC
From: et472@FreeNet.Carleton.CA
Message-ID: <ca65cp$93b$1@freenet9.carleton.ca>
Source record: 25630

Roy Lewallen (w7el@eznec.com) writes:
> Some time ago, Barrie Gilbert, for whom the "Gilbert cell" is named,
> gave a talk at a local ham club. He began by showing a copy of the
> patent for the "Gilbert cell", and emphatically pointed out that his
> name isn't on it. As he explained, he didn't invent the circuit nor did
> he have anything to do with its invention. At the time it was patented,
> he was an application engineer, and he wrote a lengthy article in one of
> the trade magazines about the circuit and its applications (and giving
> proper credit to the inventor). Shortly after that, through no action of
> his own, someone dubbed it the "Gilbert cell". The name stuck, and
> Barrie has spent the time since trying to straighten out the record --
> without success. As far as I know, he gives the explanation every time
> he presents a talk. Ironically, I don't remember the name of the actual
> inventor of this very useful circuit -- it's in my notes from that talk,
> buried somewhere.
>
> Barrie is an engineer at Analog Devices, and the chief designer of many
> of their advanced analog products. He's an exceptionally talented
> engineer, a real gentleman, and a humble and honest person. But NOT the
> inventor of the "Gilbert cell" -- as he's the first one to point out.
>
> Roy Lewallen, W7EL
>
That sounds almost exactly the way I read it before, so you may have
been the one who responded the last time.

Michael VE2BVW

> Michael Black wrote:
>>
>> But the "Gilbert Cell" mixer also got by for a good long time without
>> the fancy name.
>>
>> Nobody used the term in the early seventies when the MC1496 came along.
>> It was just a double balanced mixer. It was the late eighties when I
>> started hearing the term, in reference to the NE602, though suddenly
>> decades of the same circuit was suddenly a Gilbert Cell.
>>
>> I know I mentioned this at one time in one of the newsgroups, and
>> there was an explanation, but I can't remember what it was.
>>
>> Michael VE2BVW
>>

149. Re: B&W HF Wideband Folded Dipole and Isotron

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-09 05:37:39 UTC
From: averyfineman@aol.com
Message-ID: <20040609013739.19885.00000348@mb-m06.aol.com>
Source record: 25631

In article <IMmdnX9GEJgc5lvdRVn-ig@adelphia.com>, Mike Coslo
<mcoslo@adelphia.net> writes:

>> I remember loading a ham friend's Viking Ranger (60 to 80W) into a 75
>> ohm dipole without a balun, and then squeezing the pickle and being
>> introduced to a rather nasty fellow called R.F. Burns. :-(It's not
>> nice to have a coax that radiates!
>
> Yoiks! s there a translation issue here? Hopefully the old pickle is
>okay after that abuse! ;^)

Mike, the etymology of "pickle" in this case comes from the handheld
thumb-operated push-button switch sometimes used to release
bombs and other nasty things in WW2 military equipment. It was
about the size of an unsliced pickle. [or cucumber, but cucumber has
too many syllables to be comfortable as jargon]

E.F.Johnson used a similar pickle-sized PTT microphone on their
"Viking" radios, including a short-lived CB transceiver. I would
imagine the cross-over of WW2 jargon to apply there in a dozen years'
span from the end of WW2 although no one I know has used that term.

LenAnderson@ieee.org

150. Re: gibert cell in glass?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-09 05:37:41 UTC
From: averyfineman@aol.com
Message-ID: <20040609013741.19885.00000349@mb-m06.aol.com>
Source record: 25632

In article <904dab11.0406082027.2a6909a5@posting.google.com>,
eternalsquire@comcast.net (The Eternal Squire) writes:

>So if the Gilbert cell is simply a differential pair on top of a
>constant current source, and you are advocating only the differential
>pair, then I suppose you are advocating the equivalent of a Gilbert
>cell with no current source.

I wan't "advocating" anything, just stating generalities.

Mixers MUST be non-linear in order to do the mixing.

>Someone had mentioned that I should be using a silicon diode mixer, but that's
>not the point... I want my designs to be all battery tubes (plate 25-60
>volt), so that the gear can be portable and also withstand electromagnetic
>pulse.

Okay, then use the 1R5 pentagrid and be done with it. That
worked fine for Motorola and Hallicrafters in the old days.

Lacking that humongous EMP simulator, I don't know how you
are going to check the EMP-withstanding qualities you want. :-)

>The 7360 and 6AR8 require too much plate voltage.

I never mentioned those.

>Now from what I understand, the passive double balanced mixer has the best
>port isolation, which makes it superior to the Gilbert cell for avoiding
>spurs. On the other hand, the Gilbert cell has conversion gain but is more
>vulnerable to spurs. So I wonder if the better answer is to build a DBM in
>glass, or the differential pair?

1. You've never outlined the necessity of the double-balance in a
mixer. The non-balanced type has worked fine in the original
WW2 "handie-talkie" and on into the BC-1000 VHF manpack
transceiver and lots of battery-operated consumer radios.
Unbalanced mixers were used in the Korean War era PRC-8
series using subminiature battery tubes. For both the Tx and
Rx sections. Also the PRC-6 handy-talky, also VHF.

2. A balanced mixer of any kind is not necessarily a relief from
spurious responses. The choice of frequencies to mix will do
that...for any mixer type. Note: The intermodulation products
are a different situation and depend on the characteristics of
the mixer.

3. I'm not convinced that "battery tubes" wil "withstand an EMP."
It's become an urban myth that "all solid-state electronics is
destroyed by EMP but tubes/valves miraculously survive."
Not absolutely true...but I can't quibble with urban myths so
I've just met the MIL STDs with attention to detail on the
probable EMP effects which then passed the EMP simulator.

4. Designing a circuit using battery powered, directly-heated
filaments as a differential pair is going to be difficult...unless you
have a separate "A" battery supply for that differential pair.
Since the cathodes ARE the filaments, not separate as in
indirectly-heated tubes, those cathode-filaments are going to
be elevated or, if run near common, will require a "B-" supply
for the long-tailed pair's large "cathode" resistor.

5. Battery packs are almost in the unobtanium category except
for the single, lower voltage variety. You could use DC-DC
converters but those are now all solid-state and that doesn't
meet the "EMP requirement." Electro-mechanical vibrators
could generate the higher B+ (or B-) but those are terribly
inefficient, short-lived, and get bulky with transformers that
must be at low AC frequencies. Primary batteries such as
the carbon-zinc variety don't last long, maybe several years
if kept very cold to slow down the internal chemistry...all those
being made 30 to 40 years ago are now NG.

6. You CAN use techniques for suppressing ESD (electrostatic
discharge) to protect from EMP effects, then go ahead and
work with solid-state devices with some assurance of
surviveability. But, you MUST know the EMP characteristics
and do a thorough design task analysis on every part. Anyone
using battery-filament tubes should do the same thing although
I haven't any idea if anyone has done that.

LenAnderson@ieee.org

151. Re: gibert cell in glass?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-09 06:18:58 UTC
From: dplatt@radagast.org
Message-ID: <10cdaui2lnc8g75@corp.supernews.com>
Source record: 25633

In article <10cd424r3bs1a2d@corp.supernews.com>,
Roy Lewallen <w7el@eznec.com> wrote:

>Some time ago, Barrie Gilbert, for whom the "Gilbert cell" is named,
>gave a talk at a local ham club. He began by showing a copy of the
>patent for the "Gilbert cell", and emphatically pointed out that his
>name isn't on it. As he explained, he didn't invent the circuit nor did
>he have anything to do with its invention. At the time it was patented,
>he was an application engineer, and he wrote a lengthy article in one of
>the trade magazines about the circuit and its applications (and giving
>proper credit to the inventor). Shortly after that, through no action of
>his own, someone dubbed it the "Gilbert cell". The name stuck, and
>Barrie has spent the time since trying to straighten out the record --
>without success. As far as I know, he gives the explanation every time
>he presents a talk.

#chuckle#

Harry Stubbs (who wrote quite a few SF novels using his middle name -
Hal Clement) has had a similar problem. In his 1950s (I think) novel
"Needle", he mistakenly thought that an organism which was taking part
in a symbiotic relationship was a "symbiote", and he spelled it that
way - the correct Greek word is "symbiont".

The incorrect word was picked up by the SF community, spread, and has
gained common use. He formally retracted the incorrect word when he
published the sequel "Through the Eye of a Needle", but his comments
make it clear he doesn't think there's a chance in hell that his
neologism will be replaced in popular use by the correct term.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

152. Re: gibert cell in glass?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-09 06:25:55 UTC
From: eternalsquire@comcast.net
Message-ID: <904dab11.0406082225.4a9ed685@posting.google.com>
Source record: 25634

Hi,

I hope you'll pardon me for putting my reply to your post as of
6/8/2004 10:37 PM here, because my cable newsgroup connection is not
letting me send messages out, its going to look a little out of order.

> Okay, then use the 1R5 pentagrid and be done with it. That
> worked fine for Motorola and Hallicrafters in the old days.

That's a definite possibility. I won't mind using a pentagrid
converter if there is really nothing better for glass.

My question is simply to ask whether "21rst century"
topologies for silicon such as DBM, Gilbert cell, or commutating
mixer might help make hotter equipment than the original designers
of the tubes intended.

However, if all topologies including pentagrid basically deliver
the same performance, than you are right: I should stick with
simple and be done with it.

> Lacking that humongous EMP simulator, I don't know how you
>are going to check the EMP-withstanding qualities you want.

Let's assume that someone living in a city, suburb, or large town
is going to be quite dead if they live in the same range as something
that could kill a tube (unless of course it was a "coldbringer" EMP
warhead). Let's posit that vacuum tubes are still more surviveable
than semiconductors, all else being equal.

> 1. You've never outlined the necessity of the double-balance in a
> mixer. The non-balanced type has worked fine in the original
> WW2 "handie-talkie" and on into the BC-1000 VHF manpack
> transceiver and lots of battery-operated consumer radios.
> Unbalanced mixers were used in the Korean War era PRC-8
> series using subminiature battery tubes. For both the Tx and
> Rx sections. Also the PRC-6 handy-talky, also VHF.
>
> 2. A balanced mixer of any kind is not necessarily a relief from
> spurious responses. The choice of frequencies to mix will do
> that...for any mixer type. Note: The intermodulation products
> are a different situation and depend on the characteristics of
> the mixer.

okay...

> 4. Designing a circuit using battery powered, directly-heated
> filaments as a differential pair is going to be difficult...unless you
> have a separate "A" battery supply for that differential pair.
> Since the cathodes ARE the filaments, not separate as in
> indirectly-heated tubes, those cathode-filaments are going to
> be elevated or, if run near common, will require a "B-" supply
> for the long-tailed pair's large "cathode" resistor.

But a 1.5 volt "AA" alkaline battery is cheap enough if I need a
seperate filament.

> 5. Battery packs are almost in the unobtanium category except
> for the single, lower voltage variety. You could use DC-DC
> converters but those are now all solid-state and that doesn't
> meet the "EMP requirement." Electro-mechanical vibrators
> could generate the higher B+ (or B-) but those are terribly
> inefficient, short-lived, and get bulky with transformers that
> must be at low AC frequencies. Primary batteries such as
> the carbon-zinc variety don't last long, maybe several years
> if kept very cold to slow down the internal chemistry...all those
> being made 30 to 40 years ago are now NG.

B+ will likely be 4-6 9V alkaline batteries in series... cheap in bulk
at Target.

> 6. You CAN use techniques for suppressing ESD (electrostatic
> discharge) to protect from EMP effects, then go ahead and
> work with solid-state devices with some assurance of
> surviveability. But, you MUST know the EMP characteristics
> and do a thorough design task analysis on every part. Anyone
> using battery-filament tubes should do the same thing although
> I haven't any idea if anyone has done that.

Anything to which I can apply common sense or overkill to? I can't
possibly
hope for this to be Cold War equipment, I'm only just looking for some
kind of edge.

The Eternal Squire

153. Re: Where to get project box for USB/Serial Cable?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-09 10:17:24 UTC
From: Brian <brianCUT@iquestHERE.net>
Message-ID: <UsBxc.19031$Yd3.8381@newsread3.news.atl.earthlink.net>
Source record: 25635

Altoids mints comes in a box that would be great for this one.

"Localbuyer" <localbuyer@yahoo.com> wrote in message
news:1adb15bb.0406080617.fa266b2@posting.google.com...
> Hi:
>
> I am interested in using DLP-USB232M board
> (http://www.dlpdesign.com/usb/usb232.html) to convert a serial port
> interface to USB. Does anyone know where to find the small box that
> can be used to house the board? The board size is about 1.5 x .7 x
> .52 inch.
>
>
> Thanks all

154. Re: gibert cell in glass?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-09 19:11:21 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10ceo6aje2t8m45@corp.supernews.com>
Source record: 25636

Avery Fineman wrote:

> In article <904dab11.0406082027.2a6909a5@posting.google.com>,
> eternalsquire@comcast.net (The Eternal Squire) writes:
>
>
-- snip --
>
> 4. Designing a circuit using battery powered, directly-heated
> filaments as a differential pair is going to be difficult...unless you
> have a separate "A" battery supply for that differential pair.
> Since the cathodes ARE the filaments, not separate as in
> indirectly-heated tubes, those cathode-filaments are going to
> be elevated or, if run near common, will require a "B-" supply
> for the long-tailed pair's large "cathode" resistor.
>
-- snip --
> LenAnderson@ieee.org

I agree with everything else, but at RF you can just make a
bifilar-wound filament choke -- you'll be at DC ground but you can
inject whatever signal you want. Since everything is so high impedance
and you want low power you can make it the final inductor in a matching
network, for that matter.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

155. Re: gibert cell in glass?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-09 20:36:31 UTC
From: averyfineman@aol.com
Message-ID: <20040609163631.09295.00000389@mb-m11.aol.com>
Source record: 25637

In article <904dab11.0406082225.4a9ed685@posting.google.com>,
eternalsquire@comcast.net (The Eternal Squire) writes:

>I hope you'll pardon me for putting my reply to your post as of
>6/8/2004 10:37 PM here, because my cable newsgroup connection is not
>letting me send messages out, its going to look a little out of order.

No problem here...

>> Okay, then use the 1R5 pentagrid and be done with it. That
>> worked fine for Motorola and Hallicrafters in the old days.
>
>That's a definite possibility. I won't mind using a pentagrid
>converter if there is really nothing better for glass.

Those and pentodes (such as 1T4) work fine as mixers on
up to 10m in consumer radio receivers such as the Zenith
Transoceanic series...but they are starting to get rare, as
are 7-pin miniature tube sockets using ceramic or mica-
filled plastic dielectric!

>My question is simply to ask whether "21rst century"
>topologies for silicon such as DBM, Gilbert cell, or commutating
>mixer might help make hotter equipment than the original designers
>of the tubes intended.

One has to consider the type of active device as to configurations.
A "Gilbert cell" or double-balanced mixer-multiplier arrangement
is only practical in a single-chip semiconductor package. One
can also make a good operational amplifier out of two dual triodes
as George A. Philbrick Inc. once did under the "GAP-R" model
series. [Bob Pease likes to mention those in Electronic Design
since he once worked there] The sizes of the two, even if the GAP-R
was efficiently packaged, just doesn't compare to a typical 741 op-
amp can.

As to "hotter," let's put it this way: ANY radio can be made with
enough amplification to have the front-end noise come roaring
out the speaker like Yosemite Falls at the collecting basin. The
type of device or the device configuration doesn't matter...but the
bandwidth and the first device's inherent noise generation does
matter. There is some information on indirectly-heated tubes'
inherent noise generation in some older textbooks but I didn't
look at a sampling to see if directly-heated filament types are
included.

I once had a nice Hallicrafters "all-band" receiver using battery
tubes, bought in a PX about early 1955. After military days that
became a trial device for modifications and other ideas. With
some changes in the Ls and Cs in the front end, it could do a
2 uV sensitivity at 6 KHz BW with a 10 db Sig:Sig+Noise ratio.
Not terrific, of course, compared to modern solid-state receivers,
but adequate for SWL with its built-in telescoping whip antenna.
1T4 RF amp, 1R5 mixer, single conversion originally.

>However, if all topologies including pentagrid basically deliver
>the same performance, than you are right: I should stick with
>simple and be done with it.

Actually, the Dan Tayloe design for a DC receiver front-end has
got to be the simplest. It can handle keyed CW and SSB right
off and the CMOS switch used as the "mixer" should be able to
handle large overloads of RF or broadband pulses, etc. What
you now have to contend with is low-noise audio amplification
following the mixer and (if used) the polyphase filter in between.

>> Lacking that humongous EMP simulator, I don't know how you
>>are going to check the EMP-withstanding qualities you want.
>
>Let's assume that someone living in a city, suburb, or large town
>is going to be quite dead if they live in the same range as something
>that could kill a tube (unless of course it was a "coldbringer" EMP
>warhead). Let's posit that vacuum tubes are still more surviveable
>than semiconductors, all else being equal.

Posit what you will. If the community is killed off, there won't be
anyone to operate anything that survives the initial blast. Moot.

>> 1. You've never outlined the necessity of the double-balance in a
>> mixer. The non-balanced type has worked fine in the original
>> WW2 "handie-talkie" and on into the BC-1000 VHF manpack
>> transceiver and lots of battery-operated consumer radios.
>> Unbalanced mixers were used in the Korean War era PRC-8
>> series using subminiature battery tubes. For both the Tx and
>> Rx sections. Also the PRC-6 handy-talky, also VHF.
>>
>> 2. A balanced mixer of any kind is not necessarily a relief from
>> spurious responses. The choice of frequencies to mix will do
>> that...for any mixer type. Note: The intermodulation products
>> are a different situation and depend on the characteristics of
>> the mixer.
>
>okay...

There does exist information, rather detailed TMs on that old stuff,
from rare sites like August Johnson's fine collection of PDFs of
boat anchors (free download and he says he will come out with
CDs to order - small charge - for surface mail later). For slightly
newer stuff, like the PRC-25 and -77 VHF portable transceivers

and the current HF transceiver, PRC-104, the www.logsa.mil site
has some for distribution (a devil of a time trying to find their CD
listings but some files are downloadable by anyone). Those newer
radios are solid-state in the receiver front-ends.

>> 4. Designing a circuit using battery powered, directly-heated
>> filaments as a differential pair is going to be difficult...unless
you
>> have a separate "A" battery supply for that differential pair.
>> Since the cathodes ARE the filaments, not separate as in
>> indirectly-heated tubes, those cathode-filaments are going to
>> be elevated or, if run near common, will require a "B-" supply
>> for the long-tailed pair's large "cathode" resistor.
>
>But a 1.5 volt "AA" alkaline battery is cheap enough if I need a
>seperate filament.

That brings up DC power control. Two many different batteries means
multi-pole power switches plus adequate bypassing of elevated A+
supply lines.

>> 5. Battery packs are almost in the unobtanium category except
>> for the single, lower voltage variety. You could use DC-DC
>> converters but those are now all solid-state and that doesn't
>> meet the "EMP requirement." Electro-mechanical vibrators
>> could generate the higher B+ (or B-) but those are terribly
>> inefficient, short-lived, and get bulky with transformers that
>> must be at low AC frequencies. Primary batteries such as
>> the carbon-zinc variety don't last long, maybe several years
>> if kept very cold to slow down the internal chemistry...all those
>> being made 30 to 40 years ago are now NG.
>
>B+ will likely be 4-6 9V alkaline batteries in series... cheap in bulk
>at Target.

Okay, but add up the prices on those 9 Volters...allowing for the
income adjustment and COLA for monies, that sort of series
arrangement is today roughly twice the cost of the (adjusted) price
back in 1960. Primary batteries have taken a large price raising
(because they can) since portable consumer devices began
appearing three decades ago.

>> 6. You CAN use techniques for suppressing ESD (electrostatic
>> discharge) to protect from EMP effects, then go ahead and
>> work with solid-state devices with some assurance of
>> surviveability. But, you MUST know the EMP characteristics
>> and do a thorough design task analysis on every part. Anyone
>> using battery-filament tubes should do the same thing although
>> I haven't any idea if anyone has done that.
>
>Anything to which I can apply common sense or overkill to? I can't
>possibly hope for this to be Cold War equipment, I'm only just looking for

some
>kind of edge.

Okay, then drop the "EMP withstanding" personal specification.
Common sense says: Individual stage shielding and bypassing
anything that isn't an RF/AC signal; have the power switch also
short the antenna input; put in back-to-back switching diodes on all
RF/AC stage-stage lines that aren't handling more than a 0.5 volt if
you must have some kind of EMP withstanding capability.

"EMP" is ElectroMagnetic and is a very broadband impulse. It isn't
juju or magic, just very high level Ultra Wideband stuff. It doesn't
reach in to find out if a circuit has tubes or transistors, selectively
blowing out only the solid-state things. Approach the total design
with this super UWB environment, looking at EVERYTHING that
might pick up the super UWB of an EMP. If you want real
survivability, then get a sturdy metal box with an excellent
conductive seal all around and store the radio in there. Add a sign
telling others what is there since local humans can be fried by an
EMP through their own internal wiring.

Or, just have fun making whatever you want to make, hoping the
powers-in-charge never decide to use an EMP beastie.

LenAnderson@ieee.org

156. Re: gibert cell in glass?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-10 03:53:25 UTC
From: farhan@phonestack.com
Message-ID: <fcc11bcf.0406091953.37ec4095@posting.google.com>
Source record: 25638

in case of a nuke attack (far more likely than an EMP), the valves' shell will shatter. you are better off storing your regular transceiver inside a thick copper box with an 'rf tight' lid.

instead of EMP-proofing the transceiver from inside, EMP-proof it from the outside.

your best bet would be to use a 7MHz CW transceiver with 5 watts output. This will give you consistent communicability with reasonable power to get through. More power will drain your battries (or your legs, if u are pedalling a generator) faster. Avoid FETs and MOSFETs in your design, stick to bipolars. also avoid ICs, use discrete transistors, store a few spares in a bag inside the transceiver. have soldering iron handy too, u might have to repair quite a few things. you will also need an antenna tuner and a long wire.

this is a pretty grim discussion. in 1999, my country(india) and pakistan were on the brink of war. my city was considered a high value target. i have lived these thoughts far too close to comfort. there are no nuclear shelters in india save a few for the president and the prime minister etc. thinking back about those days, i find it ironic that i thought that i would personally survive an nuclear attack and have enough sense left to get on with establishing a wireless station.

- farhan

157. Re: gibert cell in glass?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-10 06:42:51 UTC
From: eternalsquire@comcast.net
Message-ID: <904dab11.0406092242.776d2603@posting.google.com>
Source record: 25639

> Those and pentodes (such as 1T4) work fine as mixers on
> up to 10m in consumer radio receivers such as the Zenith
> Transoceanic series...but they are starting to get rare, as
> are 7-pin miniature tube sockets using ceramic or mica-
> filled plastic dielectric!

Yes indeed, the 1L5 and 1T5 are getting extremely costly.

I had been doing other surfing between our exchanges. I found a duo-triode battery tube, one of those could make a long-tailed pair mixer. I also found a duo-diode plus pentode, and a diode plus pentode. Two of the former tubes could make a 4-diode mixer plus signal/buffer amps on each side. Two of the latter tubes could make a 2-diode mixer pls plus signal/buffer amps on each side.

>
> Okay, then drop the "EMP withstanding" personal specification.
> Common sense says: Individual stage shielding and bypassing
> anything that isn't an RF/AC signal; have the power switch also
> short the antenna input; put in back-to-back switching diodes on all
> RF/AC stage-stage lines that aren't handling more than a 0.5 volt if
> you must have some kind of EMP withstanding capability.
>
> "EMP" is ElectroMagnetic and is a very broadband impulse. It isn't
> juju or magic, just very high level Ultra Wideband stuff. It doesn't
> reach in to find out if a circuit has tubes or transistors, selectively
> blowing out only the solid-state things. Approach the total design
> with this super UWB environment, looking at EVERYTHING that
> might pick up the super UWB of an EMP. If you want real
> survivability, then get a sturdy metal box with an excellent
> conductive seal all around and store the radio in there. Add a sign
> telling others what is there since local humans can be fried by an
> EMP through their own internal wiring.

All very good suggestions, thank you. So if EMP is simply a noise spike from DC to daylight, is it that I should employ traps on all input and output leads to shunt everything outside the band of interest to ground? And the metal box makes sense.

>
> Or, just have fun making whatever you want to make, hoping the
> powers-in-charge never decide to use an EMP beastie.
>
> LenAnderson@ieee.org

Um yeah, like I said, this design is for my daughter and her cousins for thier 10th-12th birthdays, with another for myself, so I have at least 7 more years
to get this working.

So how's this for a possible lineup for the receiver?

Preselector: grounded grid amplifier with variable tanks on each side.
VFO: triode oscillator with low voltage neon bulb as regulator and
variable tank.
All three tanks use a single section each of a 3 section variable capacitor.
Converter: duo-triode differential amplifier as mixer.
IF filter: Crystal lattice filter, 8 Mhz IF, 3-6 khz bandwidth
Detector: single-tube regenerative detector fixed to 8 Mhz with +- 6 Khz
tuning through a small variable capacitor added to the capacitor
in the 8 Mhz fixed tank. Also has a manual regeneration control.
Audio amp: standard OTL implemented with battery tubes.
Output to 1 Watt speaker.

In theory, the IF filter with the 3-6 Khz bandwidth provides me with a window open either to SSB or CW. The fixed detector would allow me to receive either SSB or CW depending on the setting of the regeneration control. The detector would be 'tweakable' +- 6 Khz to provide some degree of passband tuning against the IF window.

Now the transmitter:

I have a novel idea for the CW transmitter to reduce the size of the final amplifier tube and the heat dissipation. Implement the final as a high frequency pentode or beam tetrode wired in triode mode, running as class E. I could possibly take that type of battery tube meant for 200 mw IF amplification, and run it at 5 watts class E without much great harm to the tube.

Anything I am missing with this lineup?

The Eternal Squire

158. Re: gibert cell in glass? (aka no nukes is good nukes)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-10 07:14:42 UTC
From: eternalsquire@comcast.net
Message-ID: <904dab11.0406092314.460ea108@posting.google.com>
Source record: 25640

Farhan,

I saw your post re nukes on my personal account new server but can't post out, and I don't see your post on Google yet. I hope you don't mind my answering your second message here.

I understand what you mean about the India/Pakistan conflict. I really don't know what to say. Yes, it is a grim business. But I'm thinking about the kind of world my daughter will inherit, and I want her to be equipped for it.

I think that an attack meant to wipe out a country will simply not happen, thank gawd, because the balance of terror still exists today and that balance works just fine. Thats why India and Pakistan came to thier senses, and that's why the US and USSR shadow-boxed each other without doing anything serious.

The only likely scenarios I see are two-fold:

1) Terrorist sneaks in by motor boat or rogue sub to the seashore, walks into a major city with a 50 kilotonne warhead in a backpack and ignites it kamikaze style. The city is wiped, the suburbs are fried, and the farm and ranch country gets hit with the EMP. It's the people in the farm and ranch country that would be in the best shape to use my design and coordinate with FEMA
about how to handle the survivors and the damage.

2) In response to our conventional defense of Taiwan when China inevitably loses patience and invades, China fires a single large coldbringer warhead in the ionosphere above the center of the continental US. The purpose of a coldbringer is not to ruin a city, although it still might very well do so. It is to generate a large EMP across the country to ruin a country's ability to communicate or compute, thereby ruining thier economy and ability to mobilize anything larger than a single army or marine division for some period of years.

It is most likely the unwritten policy within members of UN Security Council that a massive retalitation will never be made in response to the detonation of a single warhead. China would likely say: "oops, so sorry, it was an accident, some general had an itchy trigger finger. We'll execute him and make reparations.". Plausible deniability. In the meantime, our country is powerless to defend Taiwan because while our teeth might be there, our supply lines still originate in the US. China then conquers Taiwan with ease.

In a scenario like this, the entire country will be physically unharmed but will be in chaos, needing operators with equipment not damaged by EMP. I'd like my daughter to be able to help out if she can.

That's all I have to say for tonight.

The Eternal Squire

159. NEW - Choke Balun Program

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-10 18:31:31 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <caa9e3$k0e$1@sparta.btinternet.com>
Source record: 25641

New program CHOKEBAL.exe

Design and performance of a choke balun wound on a ferrite ring in
conjunction with a balanced transmission line and antenna.

The percent current unbalance on the line is estimated and how it varies
with frequency, line-length, etc.

Sorry, this program does NOT tell you how much power is radiated from the
feedline.

Program size 37 kilo-bytes. Download CHOKEBAL in a few seconds from website
below and run immediately. It's free issue.

....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
....

160. three stage battery charger

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-11 01:07:39 UTC
From: David Carrick <k8mam@wideopenwest.com>
Message-ID: <bb1ic01ojn6jr1bh1qsu4m8lebv1ntip7j@4ax.com>
Source record: 25642

Looking for a circuit for a 12 volt three stage 20 amp battery
charger.

161. FA: EIMAC 3 - 500 (2)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-11 02:16:21 UTC
From: bearlabs@netzero.net
Message-ID: <a81234ee.0406101816.35d6fbe8@posting.google.com>
Source record: 25643

on ebay now:

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=5704282468

_-_-bear WB2GCR

162. N2PK Vector Network Analyzer

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-11 06:56:40 UTC
From: David <david@orbitcoms.com>
Message-ID: <IIcyc.2601$sj4.1190@news-server.bigpond.net.au>
Source record: 25644

Has anyone here built Paul's Vector Network Analyzer
http://users.adelphia.net/~n2pk/VNA/VNAarch.html

I am wanting to know what needs to be done to enable the unit to work up in the 2m band.

Thanks in advance.

163. Re: N2PK Vector Network Analyzer

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-11 08:33:33 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <Ceps6bLd5WyAFAaI@ifwtech.co.uk>
Source record: 25645

David wrote:
>Has anyone here built Paul's Vector Network Analyzer
>http://users.adelphia.net/~n2pk/VNA/VNAarch.html
>
>I am wanting to know what needs to be done to enable the unit to work up in
>the 2m band.
>
The fundamental sweep range cannot be extended up to 144MHz because the
DDS won't go that high.

Very accurate narrowband swept measurements can be made using a
"transverter" adaptor, which is under development. The DDS is
up-converted to the measurement frequency, using a conventional mixer
and a stable LO, and the response from the DUT is down-converted.

Broader-band swept measurements can be made by overdriving the detector
and using harmonic responses (with but with some obvious risks of
spurious responses also).

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

164. superhet schematics

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-11 08:48:46 UTC
From: aadu.adok@hansa.ee
Message-ID: <ecaefe2f.0406110048.39679f0f@posting.google.com>
Source record: 25646

hi,

I'm planning to build a superhet receiver - for learning and for fun.
I have looked at Doug Demaw 'barebones (QST june 82)'.
Any other schematics/recommendations for first time superhet receiver project?

thanks,
aadu

165. Re: superhet schematics

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-11 10:26:38 UTC
From: R J Carpenter <rcarpen@erols.com>
Message-ID: <40c996e8$0$2986$61fed72c@news.rcn.com>
Source record: 25547

"aadu" <aadu.adok@hansa.ee> wrote in message
news:ecaefe2f.0406110048.39679f0f@posting.google.com...
> hi,
>
> I'm planning to build a superhet receiver - for learning and for fun.
> I have looked at Doug Demaw 'barebones (QST june 82)'.
> Any other schematics/recommendations for first time superhet receiver
project?

Don't try to make it small.

Arrange the RF/IF components in a straight line, not bent back on itself (to
avoid feedback/oscillation).

Use a metal chassis - unetched PC board is a good material.

166. Re: superhet schematics

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-11 13:32:02 UTC
From: Leon Heller <leon_heller@hotmail.com>
Message-ID: <40c9b453$0$25324$cc9e4d1f@news-text.dial.pipex.com>
Source record: 25548

http://www.geocities.com/leon_heller
"aadu" <aadu.adok@hansa.ee> wrote in message
news:ecaefe2f.0406110048.39679f0f@posting.google.com...
> hi,
>
> I'm planning to build a superhet receiver - for learning and for fun.
> I have looked at Doug Demaw 'barebones (QST june 82)'.
> Any other schematics/recommendations for first time superhet receiver
project?

If you have built a DC Rx, you could always convert it into a superhet by
adding an IF strip, filter, mixer and oscillator.

Build it as small modules - RF/mixer, oscillator, IF, etc. Start with the AF
amp and work back towards the front end. Try making it for AM first with a
diode detector, then add a product detector and BFO.

73, Leon

167. Antenna Power for Nibiru Communication

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-11 23:40:33 UTC
From: Zecharia Sitchin <ZSitchin@about.com>
Message-ID: <u7gkc0tseflctleqiprpiehki5do09pjqd@4ax.com>
Source record: 25549
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew,alt.gods,sci.electronics.design,sci.engr.radar+sonar

What would be the optimum type of antenna, power level, and frequency to communicate from CONUS to Nibiru?

168. FA:Collins S-Line knobs x2 + more stuff

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-12 00:25:34 UTC
From: Heytubeguy <heytubeguy@worldnet.att.net>
Message-ID: <24syc.48537$Gx4.25565@bgtnsc04-news.ops.worldnet.att.net>
Source record: 25550

See at :

http://cgi6.ebay.com/ws/eBayISAPI.dll?ViewSellersOtherItems&userid=heytubeguy&completed=0&sort=3&since=-1&include=0&page=1&rows=25

Plus other 'stuff' too. Tnx Heytubeguy

169. Re: three stage battery charger

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-12 02:55:12 UTC
From: k7itm@aol.com
Message-ID: <3200347.0406111855.f71356@posting.google.com>
Source record: 25551

For lead-acid chemistry? Have a look at the TI UC3906 data sheet and the ap note for that part. You just need to provide the pass controller capable of 20 amps. I've been toying with using that part to control a switching circuit to keep efficiency high and power dissipation low, but haven't actually tried it yet. The controller IC does a good job, though. I've used them in lower-power linear-pass circuits.

Cheers,
Tom

David Carrick <k8mam@wideopenwest.com> wrote in message news:<bb1ic01ojn6jr1bh1qsu4m8lebv1ntip7j@4ax.com>...
> Looking for a circuit for a 12 volt three stage 20 amp battery
> charger.

170. Re: superhet schematics

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-12 06:13:52 UTC
From: n2cqr@clix.pt
Message-ID: <97f305da.0406112213.34e898cf@posting.google.com>
Source record: 25552

Aadu:

DeMaw's barebones superhet is a good design to use for a "first superhet"
project. My web site has an article on my experiences building this RX.
Check out the QRP -- Homebrew section of{

http://n2cqr.planetaclix.pt/

73 Bill M0HBR N2CQR CU2JL
n2cqr@arrl.org

171. Re: Effect of substituting ferrites with ordinary resistors in PA circuit?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-12 13:31:22 UTC
From: "Odd Erling N. Eriksen" <odderi@pvv.org>
Message-ID: <caf0ja$eu4$1@orkan.itea.ntnu.no>
Source record: 25553

Tim Wescott wrote:

> The MSc degree doesn't train you how to _be_ an engineer, it trains you
> how to _learn how to be_ an engineer.

-I know, I know - I just wish that we could spend more time in the lab
trying to figure out the practical implications of the theory we had
learned; don't get me wrong. Thanks for your input, by the way.

--
73 de LB1LF

Odd Erling, ARK

Do infants enjoy infancy as much as adults enjoy adultery?

172. Re: Effect of substituting ferrites with ordinary resistors in PA circuit?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-12 16:30:51 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10cmbtmeq0kuf9d@corp.supernews.com>
Source record: 25554

Odd Erling N. Eriksen wrote:
> Tim Wescott wrote:
>
>
>>The MSc degree doesn't train you how to _be_ an engineer, it trains you
>>how to _learn how to be_ an engineer.
>
>
> -I know, I know - I just wish that we could spend more time in the lab
> trying to figure out the practical implications of the theory we had
> learned; don't get me wrong. Thanks for your input, by the way.
>

I don't know how much time they have you spending in the lab, but I home
you get _some_. Some lab work is essential, if for no other reason than
to bring to you, as forcibly as possible, the fact that lab work and
theoretical work are two entirely different things. On the other hand
if all they do is train you to be a jumped-up technician then they
haven't served you very well.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

173. Re: Antenna Power for Nibiru Communication

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-12 16:39:11 UTC
From: k7itm@aol.com
Message-ID: <3200347.0406120839.3bfc7185@posting.google.com>
Source record: 25555
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew,alt.gods,sci.electronics.design,sci.engr.radar+sonar

What do you mean by optimum?? Do you have an infinite supply of money, or is that one of the constraints? Do you have a license to transmit on some frequencies? How much land area on each end do you have to work with? Do you care how much power you need to use, or do you want to keep it below some level? What other constraints are you operating under that will help you evaluate just what "optimum" means? And what are you trying to communicate? That is, can you work with very low data rates, say one word per hour, or do you want to send television signals or high speed data? (What do you need to communicate, and how long can you afford to wait to do it?)

If you want to be able to reliably communicate at any time and you have enough funds, a satellite based system is likely your best bet. Cell phones, with their built-in antennas and self-adjusting power, should be fine if you are close enough on each end to the required infrastructure. (i.e., let someone else do all the RF work for you if you can.)

If you want a direct earth-based RF link, with no relay stations between, you can do it on either high frequencies or VLF. With VLF, it will take very large antenna structures and high power (many kilowatts), but once you have a working system, it will work pretty much any time. On HF, there will be times when it is impossible to establish a link at any power, and other times when one watt is sufficient. Generally expect to use frequencies between 10MHz and 30MHz, and expect to need a license. (You can be sure that other people will hear your communications.) Because the frequency you'll want to use will change with the condition of the ionosphere (which depends in turn on things such as solar activity and time of day and season), you'll want an antenna system that can accomodate a range of frequencies. It probably would be helpful to have some directionality in the antenna, as you'd get with a Yagi or log-periodic array, but a simple dipole antenna will work under the right ionospheric conditions.

You can learn a lot about this sort of thing if you read some amateur radio publications. I suppose current editions of "The Radio Amateur's Handbook" from ARRL would be a good place to start.

Cheers,
Tom

Zecharia Sitchin <ZSitchin@about.com> wrote in message news:<u7gkc0tseflctleqiprpiehki5do09pjqd@4ax.com>...
> What would be the optimum type of antenna, power level, and frequency to

> communicate from CONUS to Nibiru?

174. Re: Antenna Power for Nibiru Communication

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-12 17:44:48 UTC
From: k4wge@arrl.net
Message-ID: <7b671b4e.0406120944.1aa9f92b@posting.google.com>
Source record: 25556
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew,alt.gods,sci.electronics.design,sci.engr.radar+sonar

Zecharia Sitchin <ZSitchin@about.com> wrote

> What would be the optimum type of antenna, power level, and frequency to
> communicate from CONUS to Nibiru?

Have you considered using a heliograph?

175. Re: Antenna Power for Nibiru Communication

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-12 17:45:49 UTC
From: "J. McLaughlin" <JCM@Power-Net.Net>
Message-ID: <10cmg8tt8c45sed@corp.supernews.com>
Source record: 25557
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew,alt.gods,sci.electronics.design,sci.engr.radar+sonar

Dear Mr. Bruhns:
Yours was a well presented description of the issues attendant to
terrestrial radio communication.
However, Nibiru is a mythological planet that no radio signal can
reach because it is hidden from view.
73 Mac N8TT

--
J. Mc Laughlin - Michigan USA

Tom Bruhns" <k7itm@aol.com> wrote in message
news:3200347.0406120839.3bfc7185@posting.google.com...
> What do you mean by optimum?? Do you have an infinite supply of
> money, or is that one of the constraints? Do you have a license to
> transmit on some frequencies? How much land area on each end do you
> have to work with? Do you care how much power you need to use, or do
> you want to keep it below some level? What other constraints are you
> operating under that will help you evaluate just what "optimum" means?
> And what are you trying to communicate? That is, can you work with
> very low data rates, say one word per hour, or do you want to send
> television signals or high speed data? (What do you need to
> communicate, and how long can you afford to wait to do it?)
>
> If you want to be able to reliably communicate at any time and you
> have enough funds, a satellite based system is likely your best bet.
> Cell phones, with their built-in antennas and self-adjusting power,
> should be fine if you are close enough on each end to the required
> infrastructure. (i.e., let someone else do all the RF work for you if
> you can.)
>
> If you want a direct earth-based RF link, with no relay stations
> between, you can do it on either high frequencies or VLF. With VLF,
> it will take very large antenna structures and high power (many
> kilowatts), but once you have a working system, it will work pretty
> much any time. On HF, there will be times when it is impossible to
> establish a link at any power, and other times when one watt is
> sufficient. Generally expect to use frequencies between 10MHz and
> 30MHz, and expect to need a license. (You can be sure that other
> people will hear your communications.) Because the frequency you'll
> want to use will change with the condition of the ionosphere (which
> depends in turn on things such as solar activity and time of day and
> season), you'll want an antenna system that can accomodate a range of
> frequencies. It probably would be helpful to have some directionality
> in the antenna, as you'd get with a Yagi or log-periodic array, but a

> simple dipole antenna will work under the right ionospheric
> conditions.
>
> You can learn a lot about this sort of thing if you read some amateur
> radio publications. I suppose current editions of "The Radio
> Amateur's Handbook" from ARRL would be a good place to start.
>
> Cheers,
> Tom
>

176. Re: Antenna Power for Nibiru Communication

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-12 19:21:29 UTC
From: Barkley <barkley@starfleet.net>
Message-ID: <40CB57B7.A09A0011@starfleet.net>
Source record: 25558
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew,alt.gods,sci.electronics.design,sci.engr.radar+sonar

My research and field trials demonstrated that
using a space orbiting array powered by fusion generators
can produce a temporal distortial.

Once the distortion has opened up, use of a tunneling neutrino
partial beam would be sufficient to transmit the information.

Now to receive it on the other end is another story.

barkley

k4wge wrote:

> Zecharia Sitchin <ZSitchin@about.com> wrote
>
> > What would be the optimum type of antenna, power level, and frequency to
> > communicate from CONUS to Nibiru?
>
> Have you considered using a heliograph?

177. Re: Antenna Power for Nibiru Communication

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-12 20:10:19 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <40cb6459_3@corp.newsgroups.com>
Source record: 25559
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew,alt.gods,sci.electronics.design,sci.engr.radar+sonar

J. McLaughlin wrote:
> However, Nibiru is a mythological planet that no radio signal can
> reach because it is hidden from view.

Is that the same as Sitchin's 12th planet? If so, it is
presently supposed to be far, far outside the orbit of
Pluto about halfway through a 3600 year orbit.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

178. Re: Antenna Power for Nibiru Communication

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-12 20:14:59 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <40cb6570$1_3@corp.newsgroups.com>
Source record: 25560
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew,alt.gods,sci.electronics.design,sci.engr.radar+sonar

Barkley wrote:
> Now to receive it on the other end is another story.

Shoulda latched onto a piece of THEIR transceiving
equipment the last time they were close (a couple
of thousand years ago).
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

179. Re: Antenna Power for Nibiru Communication

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-12 22:43:29 UTC
From: Roger Gt <not@here.net>
Message-ID: <kGLyc.70281$R93.58354@newssvr29.news.prodigy.com>
Source record: 25561
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew,alt.gods,sci.electronics.design,sci.engr.radar+sonar

"Zecharia Sitchin" <ZSitchin@about.com> wrote in message
news:u7gkc0tseflctleqiprpiehki5do09pjqd@4ax.com...
: What would be the optimum type of antenna, power level, and
frequency to
: communicate from CONUS to Nibiru?
:

More about the Planet AT:

http://www.2012.com.au/Nibiru.html

180. Re: Antenna Power for Nibiru Communication

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-13 01:41:44 UTC
From: k7itm@aol.com
Message-ID: <3200347.0406121741.7891289f@posting.google.com>
Source record: 25562
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew,alt.gods,sci.electronics.design,sci.engr.radar+sonar

"J. McLaughlin" <JCM@Power-Net.Net> wrote in message
news:<10cmg8tt8c45sed@corp.supernews.com>...
> Dear Mr. Bruhns:
> Yours was a well presented description of the issues attendant to
> terrestrial radio communication.
> However, Nibiru is a mythological planet that no radio signal can
> reach because it is hidden from view.
> 73 Mac N8TT
>
...

Hook, line and sinker, eh? Ah, well, the postings really are more
often for the lurkers than the OPs.

Now if only that had been the worst thing that happened to me today.
:-(

Cheers,
Tom

181. Re: Antenna Power for Nibiru Communication

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-13 02:01:21 UTC
From: Mike Coslo <mcoslo@adelphia.net>
Message-ID: <QsydnaF9_YbsKFbdRVn-jw@adelphia.com>
Source record: 25563
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew,alt.gods,sci.electronics.design,sci.engr.radar+sonar

Barkley wrote:

> My research and field trials demonstrated that
> using a space orbiting array powered by fusion generators
> can produce a temporal distortial.
>
> Once the distortion has opened up, use of a tunneling neutrino
> partial beam would be sufficient to transmit the information.
>
> Now to receive it on the other end is another story.

Wrong! Geordi used that same method once on STTNG to try to make ice cream once. Didn't work then and never would.

- Mike -

182. Re: Antenna Power for Nibiru Communication

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-13 02:51:24 UTC
From: Rosco <rvaagen@hotmail.com>
Message-ID: <40cbc6e4$1@news.702com.net>
Source record: 25564
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew,alt.gods,sci.electronics.design,sci.engr.radar+sonar

If a hen and a half laid an egg and a half in a day and a half, how long
would it take for a peg legged monkey to kick the seeds out of a gourd?

LOL

Zecharia Sitchin <ZSitchin@about.com> wrote in message
news:u7gkc0tseflctleqiprpiehki5do09pjqd@4ax.com...
> What would be the optimum type of antenna, power level, and frequency to
> communicate from CONUS to Nibiru?
>
>

183. "JDM" pic programmer 2

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-13 03:09:31 UTC
From: Ken Scharf <wa2mzeNOTTHIS@bellsouth.net>
Message-ID: <GwPyc.1164$aG5.1093@bignews3.bellsouth.net>
Source record: 25565

Is anybody using the JDM serial pic programmer?
I built the Pic-Programmer 2 version and I'm debugging
it before pluging in a live pic. (www.jdm.homepage.dk/newpics.htm)

It seems that the VPP (MCLR) pin goes from -.6v to +12.87 volts.
I'm worried that the negative voltage (when it should be zero) might
damage the device being programmed. I tried adding a 1n4148 clamp
diode from MCLR to VSS (Anode to VSS) and that brings the 'zero'
voltage down to -.37v or so.

VDD runs +5.11v (exactly what the Zener diode is rated at). The
+12.87v for vpp is about what it should be given the 8.2v and
5.1v zeners plus the drop through Q1 (and that 8.2v zener might
be the low side, I didn't measure the drop across it).

If the slightly negative voltage on MCLR isn't fatal, I guess
the programmer is good to go. Any ideas?

184. Re: "JDM" pic programmer 2

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-13 04:37:05 UTC
From: Leon Heller <leon_heller@hotmail.com>
Message-ID: <40cbd9f2$0$20508$cc9e4d1f@news-text.dial.pipex.com>
Source record: 25567

"Ken Scharf" <wa2mzeNOTTHIS@bellsouth.net> wrote in message
news:GwPyc.1164$aG5.1093@bignews3.bellsouth.net...
> Is anybody using the JDM serial pic programmer?
> I built the Pic-Programmer 2 version and I'm debugging
> it before pluging in a live pic. (www.jdm.homepage.dk/newpics.htm)

I've used it - it works OK on Win98 but is very unreliable with WinXP, even
with the XP drivers.

Leon
--
Leon Heller, G1HSM
http://www.geocities.com/leon_heller

185. Electronic Component Spare Parts

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-13 06:08:10 UTC
From: www_militarycomponents_com@yahoo.com
Message-ID: <73bdb920.0406122208.167248b8@posting.google.com>
Source record: 25568

Indepedent Stocking Distributor of
Military & Industrial & Commerical
Electronic Component Spare Parts
64,000 line items in our inventory
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
Capacitors
Resistors
Diodes
Semiconductors
Rectifiers
Thrysistors
Varistors
Trimpots
Transistors
Integrated Circuits
Connectors
Relays
Switches
Fuses
Terminal Blocks
~~~~~~
Electronic Material Industries,Inc.
10061 Riverside Drive Suite 1023
Toluca Lake,California 91602 U.S.A.
~~~~~~
(818)769-1002 corp office
(818)763-9584 corp office
(818)846-7676 home office
(818)238-9980 home office
(818)769-1084 24 hour fax
(310)388-1276 24 hour efax
(818)542-0734 voice mail pager
(818)399-1158 celluar

electmatind@earthlink.net
sales@militarycomponents.com

http://www.militarycomponents.com
http://www.militarycomponents.com

http://groups.yahoo.com/group/buys_sells_consignments
http://groups.yahoo.com/group/buys_sells_consignments

http://groups.yahoo.com/group/e_m_i
http://groups.yahoo.com/group/e_m_i
~~~~~~

~~~~~~
Please fax or email your requirements -
requests for quotations - purchase orders - excess listings - surplus lists
for immediate responses & answers.
~~~~~~

186. Re: Antenna Power for Nibiru Communication

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-13 06:39:19 UTC
From: K Williams <krw@adelphia.net>
Message-ID: <1OKdnTgoKfurUFbdRVn-hQ@adelphia.com>
Source record: 25566
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew,alt.gods,sci.electronics.design,sci.engr.radar+sonar

Mike Coslo wrote:

> Barkley wrote:
>
>> My research and field trials demonstrated that
>> using a space orbiting array powered by fusion generators
>> can produce a temporal distortial.
>>
>> Once the distortion has opened up, use of a tunneling neutrino
>> partial beam would be sufficient to transmit the information.
>>
>> Now to receive it on the other end is another story.
>
>
> Wrong! Geordi used that same method once on STTNG to try to make
> ice cream once. Didn't work then and never would.

Geordi didn't have the right script writers. Any decent writer
would have had him take a hair-pin and modify the food replicator
to create the necessary neutrino beam. Of course, the replicator
would have had to be set to "ice_cream.ben_and_jerrys" to get it
all together.

--
Keith

187. Re: "JDM" pic programmer 2

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-13 13:42:05 UTC
From: Ken Scharf <wa2mzeNOTTHIS@bellsouth.net>
Message-ID: <jKYyc.22334$FC3.2663@bignews1.bellsouth.net>
Source record: 25569

Leon Heller wrote:
> "Ken Scharf" <wa2mzeNOTTHIS@bellsouth.net> wrote in message
> news:GwPyc.1164$aG5.1093@bignews3.bellsouth.net...
>
>>Is anybody using the JDM serial pic programmer?
>>I built the Pic-Programmer 2 version and I'm debugging
>>it before pluging in a live pic. (www.jdm.homepage.dk/newpics.htm)
>
>
> I've used it - it works OK on Win98 but is very unreliable with WinXP, even
> with the XP drivers.
>
> Leon
I'm going to use it on Linux with PikDev.

188. Re: "JDM" pic programmer 2

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-13 15:15:52 UTC
From: Allodoxaphobia <bit-bucket@config.com>
Message-ID: <slrnccortv.1gqp.bit-bucket@localhost.config.com>
Source record: 25570

```
On Sun, 13 Jun 2004 09:42:05 -0400, Ken Scharf hath writ:
> Leon Heller wrote:
>> "Ken Scharf" <wa2mzeNOTTHIS@bellsouth.net> wrote in message
>> news:GwPyc.1164$aG5.1093@bignews3.bellsouth.net...
>>
>>>Is anybody using the JDM serial pic programmer?
>>>I built the Pic-Programmer 2 version and I'm debugging
>>>it before pluging in a live pic. (www.jdm.homepage.dk/newpics.htm)
>>
>> I've used it - it works OK on Win98 but is very unreliable with WinXP, even
>> with the XP drivers.
>>
> I'm going to use it on Linux with PikDev.

Good for you, fella!

Jonesy
--
| Marvin L Jones | jonz | W3DHJ | linux
| Gunnison, Colorado | @ | Jonesy | O/S2 __
| 7,703' -- 2,345m | frontier.net | DM68mn SK
```

189. superhet rx homebrew

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-13 19:57:23 UTC
From: ve3ab@mail.mondenet.com
Message-ID: <40ccb0a2.448038@news.mondenet.com>
Source record: 25571

Hello. Im about 1/2 way through building the simple superhet rx in
doug demaws qrp notebook. (The brown covered one).
It uses a ca3028 mixer ic followed by a crystal filter and 1350 if
amps. Far Circuits sells a circuit board (which i purchased).
the main board is compact..about 4 inches by 3 inches.
Covers just one band..but you can use external converters to cover
other bands.
Let me know ..i could send you some info..jpg files i could scan.
Another good rcvr is the one in the ARRL handbooks ..it uses dual gate
mosfets ..I think its in the early 1990s handbooks.
73 Earl VE3AB

190. Re: "JDM" pic programmer 2

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-13 23:01:02 UTC
From: xpyttl <xpyttl_NOSPAM@earthling.net>
Message-ID: <10cpn5kbeogq87e@corp.supernews.com>
Source record: 25572

"Ken Scharf" <wa2mzeNOTTHIS@bellsouth.net> wrote in message
news:GwPyc.1164$aG5.1093@bignews3.bellsouth.net...

> diode from MCLR to VSS (Anode to VSS) and that brings the 'zero'
> voltage down to -.37v or so.

You may want to check the datasheet for the specific part you are going to
use. the 16F628 datasheet, for example, specifies the absolute minimum
voltage on MCLR at -0.3v. Ditto with the 877 and 84A.

..

191. Re: "JDM" pic programmer 2

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-14 00:31:57 UTC
From: Ken Scharf <wa2mzeNOTTHIS@bellsouth.net>
Message-ID: <tf6zc.23117$FC3.13563@bignews1.bellsouth.net>
Source record: 25573

xpyttl wrote:
> "Ken Scharf" <wa2mzeNOTTHIS@bellsouth.net> wrote in message
> news:GwPyc.1164$aG5.1093@bignews3.bellsouth.net...
>
>
>>diode from MCLR to VSS (Anode to VSS) and that brings the 'zero'
>>voltage down to -.37v or so.
>
>
> You may want to check the datasheet for the specific part you are going to
> use. the 16F628 datasheet, for example, specifies the absolute minimum
> voltage on MCLR at -0.3v. Ditto with the 877 and 84A.
>
> ..
>
>
I could put a germainium or low voltage drop si in series with
the VPP to block the negative voltage all together. That would
somewhat limit the vpp, which might be a problem.

192. Re: "JDM" pic programmer 2

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-14 01:39:00 UTC
From: Ken Scharf <wa2mzeNOTTHIS@bellsouth.net>
Message-ID: <Xj7zc.34127$Kd5.10362@bignews4.bellsouth.net>
Source record: 25574

xpyttl wrote:
> "Ken Scharf" <wa2mzeNOTTHIS@bellsouth.net> wrote in message
> news:GwPyc.1164$aG5.1093@bignews3.bellsouth.net...
>
>
>>diode from MCLR to VSS (Anode to VSS) and that brings the 'zero'
>>voltage down to -.37v or so.
>
>
> You may want to check the datasheet for the specific part you are going to
> use. the 16F628 datasheet, for example, specifies the absolute minimum
> voltage on MCLR at -0.3v. Ditto with the 877 and 84A.
>
> ..
>
>
I added a diode in series with the VPP output from the emitter or Q1
(with the anode toward Q1's emitter) and a second shut diode
from the MCLR pin to VSS (anode toward VSS). Now the VPP voltage
at MCLR swings from -0.05v to +12.6 volts. I hope that's enough
VPP. I may have to change out the 8.2v zener, I measured the voltage
across it and it appears on the low side. I could also just connect
a 1n4001 or two in series with it to raise the vpp supply.

Anyway seems the programmer is safe now. Still need to put a scope
to the PGC and PGD lines and check they are in spec.

193. Re: "JDM" pic programmer 2

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-14 01:45:46 UTC
From: xpyttl <xpyttl_NOSPAM@earthling.net>
Message-ID: <10cq0qeb5a7kh1f@corp.supernews.com>
Source record: 25575

"Ken Scharf" <wa2mzeNOTTHIS@bellsouth.net> wrote in message
news:tf6zc.23117$FC3.13563@bignews1.bellsouth.net...

> I could put a germainium or low voltage drop si in series with
> the VPP to block the negative voltage all together. That would
> somewhat limit the vpp, which might be a problem.

I don't know definitively what you need here. A lot of older programmers
went through all sorts of hoops to be sure that value was above 12 volts.
However, lots and lots of folks have success with around 9 or so. I haven't
been able to find a spec, other than the maximum, but Microchip generally
refers to this as "13 volts".

..

..

194. Re: "JDM" pic programmer 2

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-14 01:55:49 UTC
From: Ken Scharf <wa2mzeNOTTHIS@bellsouth.net>
Message-ID: <qz7zc.3499$I%4.2449@bignews6.bellsouth.net>
Source record: 25576

xpyttl wrote:
> "Ken Scharf" <wa2mzeNOTTHIS@bellsouth.net> wrote in message
> news:tf6zc.23117$FC3.13563@bignews1.bellsouth.net...
>
>
>>I could put a germainium or low voltage drop si in series with
>>the VPP to block the negative voltage all together. That would
>>somewhat limit the vpp, which might be a problem.
>
>
> I don't know definitively what you need here. A lot of older programmers
> went through all sorts of hoops to be sure that value was above 12 volts.
> However, lots and lots of folks have success with around 9 or so. I haven't
> been able to find a spec, other than the maximum, but Microchip generally
> refers to this as "13 volts".
>
> ..
>
>
> ..
>
>
I do remember reading that some pics failed to program if vpp wasn't
high enough. If 13v is the maximum than I must be close enough with
12.6v!

BTW My programmer has a 40 pin socket wired to accept 8,14 and 18 pin
pics in the bottom part of the socket (Device pin 1 9 pins up from the
bottom in all cases) and 28 pin pics in the upper part of the socket
(Device pin 1 at the top of the socket). I have a jumper to remove
vpp from pin 15, and one to set pin 12 at vss for 40 pin pics and
vdd for all others.
So in theory this unit will work with almost all pics.
For the 20 pin units I would need to put a socket into the
socket so pins 10 and 11 can 'hang ten'.

195. 90 degree phase shifter

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-14 04:03:52 UTC
From: Alan Peake <adpeake@killspam.internode.on.net>
Message-ID: <40CD23A8.6000307@killspam.internode.on.net>
Source record: 25577

Hi all,
I'm looking for the element values of the 2Q4 phase shifter as
described in the 1992 ARRL Handbook.
Alternatively, can anyone recommend an active (analog) all-pass that
would give the same or better results. I have some precision capacitors
so that's no problem.
Thanks,
Alan
VK2TWB

196. Re: "JDM" pic programmer 2

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-14 05:39:06 UTC
From: mike@corn2.freeserve.co.uk
Message-ID: <40cd39b9.253563807@news.freeserve.net>
Source record: 25578

On Sun, 13 Jun 2004 21:45:46 -0400, "xpyttl"
<xpyttl_NOSPAM@earthling.net> wrote:

>"Ken Scharf" <wa2mzeNOTTHIS@bellsouth.net> wrote in message
>news:tf6zc.23117$FC3.13563@bignews1.bellsouth.net...
>
>> I could put a germainium or low voltage drop si in series with
>> the VPP to block the negative voltage all together. That would
>> somewhat limit the vpp, which might be a problem.
>
>I don't know definitively what you need here. A lot of older programmers
>went through all sorts of hoops to be sure that value was above 12 volts.
>However, lots and lots of folks have success with around 9 or so. I haven't
>been able to find a spec, other than the maximum, but Microchip generally
>refers to this as "13 volts".
>
Perhaps a visit to the PICLIST mailing list will be beneficial

197. Re: 90 degree phase shifter

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-14 07:26:38 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <Oqczc.40813$%i1.38945@edtnps89>
Source record: 25579

Hmmmm, couldn't find online info for ya, but a bunch of good bibliography
on the subject :-)

http://www.home.earthlink.net/~christrask/pshift.html

--
Gregg
It's probably useful, even if it can't be SPICE'd
http://geek.scorpiorising.ca

198. Re: "JDM" pic programmer 2

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-14 08:48:33 UTC
From: Eamon Skelton <Xnospam@oceanfree.net>
Message-ID: <2c50q1-ej1.ln1@skelton.news.cis.dfn.ed>
Source record: 25585

Ken Scharf wrote:

> I'm going to use it on Linux with PikDev.
I use Jaakko Hyvatti's version of the JDM84
with picprog software. It works very well
on Linux.

http://www.iki.fi/hyvatti/

73, Ed. EI9GQ.

--
Remove 'X' to reply by E-mail.
Linux 2.6.5

199. Re: 90 degree phase shifter

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-14 09:22:44 UTC
From: farhan@phonestack.com
Message-ID: <fcc11bcf.0406140122.73fa2728@posting.google.com>
Source record: 25580

alan,

the polyphase network used by hans
(http://www.hanssummers.com/radio/polyphase/index.htm) is a very good
idea if you _have_ to use passive components. although hans has used
1% tolerance components, you can get away with even lesser tolerence
and use ordinary capacitors with 1% resistors.

alternatively, you can try using the approach of rick campbell in
using op-amp based all-pass network. these require fewer components
and only 0.01uf capacitors. the resistors can be easily measured on a
digital VOM for precise value and soldered into the circuit. search
the net for R2 direct conversion receiver.

unless you are planning some portable work, an exciting way to do this
is to make your computer do the audio processing work. If you feed the
left and right channels with I and Q, the rest of the receiver can be
implemented in software.

this kind of a receiver can be really simple. an rf amplifier followed
by two singly balanced diode mixers, each followed by a single stage
audio amplifier that will directly feed left and right channels of the
sound card. the rest is software. if you find dsp software to be
messy, you can probably download the freely available software from
www.flex-radio.com and use the ssb modules.

- farhan

Alan Peake <adpeake@killspam.internode.on.net> wrote in message
news:<40CD23A8.6000307@killspam.internode.on.net>...
> Hi all,
> I'm looking for the element values of the 2Q4 phase shifter as
> described in the 1992 ARRL Handbook.
> Alternatively, can anyone recommend an active (analog) all-pass that
> would give the same or better results. I have some precision capacitors
> so that's no problem.
> Thanks,
> Alan
> VK2TWB

200. Re: 90 degree phase shifter

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-14 10:11:23 UTC
From: Joe McElvenney <ximac@btinternet.com>
Message-ID: <VA.0000000c.00704228@btinternet.com>
Source record: 25581

Hi,

> I'm looking for the element values of the 2Q4 phase shifter as
> described in the 1992 ARRL Handbook.

The 2Q4 was an 8-pin plug-in (octal?) and this is how it is shown in the 51SB-B sideband generator schematic.

Pin 1 - 680pF - 487k - Pin 2 - 770k||430pF - Pin 3

Pin 5 - 680pF - 125k - Pin 6 - 198k||430pF - Pin 7

Pins 1 & 5 were strapped and fed with one side of a balanced, band-limited audio input and 3 & 7 (also strapped) with the other. Phase-shifted outputs were then taken from 2 & 6. I guess that 4 or 8 could have been a grounded shell.

I haven't worked it out but wouldn't be surprised if these are not just Wein Bridge values for a certain frequency.

Cheers - Joe

201. Re: 90 degree phase shifter

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-14 10:47:29 UTC
From: jgboyles@aol.com
Message-ID: <20040614064729.18571.00001127@mb-m07.aol.com>
Source record: 25582

Pin 1 - 2 : 680pF in series with 487k

Pin 2 - 3 : 430pF in parallel with 770k

Pin 5 - 6 : 680pF in series with 125k

Pin 6 - 7 : 430pF in parallel with 198k

Inputs across 1/5 and 3/7 with the quadrature outputs from 2
and 6.

Bama website has the schematic of the B&W transmitter

73 Gary N4AST

202. Re: 90 degree phase shifter

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-14 13:14:38 UTC
From: Hans Summers <hans.summers@tudor.com>
Message-ID: <2j5mlvFsqr07U1@uni-berlin.de>
Source record: 25583

"Ashhar Farhan" <farhan@phonestack.com> wrote in message
news:fcc11bcf.0406140122.73fa2728@posting.google.com...
> alan,
>
> the polyphase network used by hans
> (http://www.hanssummers.com/radio/polyphase/index.htm) is a very good
> idea if you _have_ to use passive components. although hans has used
> 1% tolerance components, you can get away with even lesser tolerence
> and use ordinary capacitors with 1% resistors.

Thanks Farhan. I actually used 0.1% resistors, and matched the capacitors also to 0.1% by adding parallel capacitance. Of course, all that could change with temperature due to the different parallel capacitances drifting different amounts.

I believe the passive polyphase network to be superior to the active phase shifting networks which use op-amps. For any given level of component tolerance, a passive network will give much better opposite sideband suppression (I recall seeing 10-20dB reported somewhere but can't provide references). Provided attention is paid to the values used, the network can be made lossless which overcomes any concerns about gain distribution and harming the overall receiver dynamic range.

So the way I tend to put it, is if you _have_ to use active components ...

73 de Hans G0UPL
http://www.HansSummers.com

203. Re: superhet rx homebrew

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-14 13:51:51 UTC
From: ablight@alphalink.com.au
Message-ID: <1fc7b362.0406140551.293b3447@posting.google.com>
Source record: 25584

ve3ab@mail.mondenet.com wrote in message news:<40ccb0a2.448038@news.mondenet.com>...
> Hello. Im about 1/2 way through building the simple superhet rx in
> doug demaws qrp notebook. (The brown covered one).
> It uses a ca3028 mixer ic followed by a crystal filter and 1350 if
> amps. Far Circuits sells a circuit board (which i purchased).
> the main board is compact..about 4 inches by 3 inches.
> Covers just one band..but you can use external converters to cover
> other bands.
> Let me know ..i could send you some info..jpg files i could scan.
> Another good rcvr is the one in the ARRL handbooks ..it uses dual gate
> mosfets ..I think its in the early 1990s handbooks.
> 73 Earl VE3AB

Hi Earl,
good luck with the project - not familiar with that one. One query -
can you or have you sourced the ic's - I think they are long obselete
(could be wrong) - its a worry with old designs.....
73 de VK3BFA Andrew

ps - currently building the Ashar Farhan BITX20 20m ssb transceiver -
a lovely design, absolute miminal implementation of a complex device.

204. WJ TWT pinout?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-14 19:42:40 UTC
From: * <*@*.com>
Message-ID: <2j6ddbFtvo8rU1@uni-berlin.de>
Source record: 25586

Hi,
I have a WJ 3041-1 low noise TWT 7 to 12.4 Ghz (NOS)
And I am looking for the pinout of the connector, 7 pins, 5 wired up
for AC power primarily.
Thanks in advance

205. Re: 90 degree phase shifter

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-14 22:41:35 UTC
From: Ken Scharf <wa2mzeNOTTHIS@bellsouth.net>
Message-ID: <3Npzc.8304$aG5.485@bignews3.bellsouth.net>
Source record: 25587

Alan Peake wrote:
> Hi all,
> I'm looking for the element values of the 2Q4 phase shifter as
> described in the 1992 ARRL Handbook.
> Alternatively, can anyone recommend an active (analog) all-pass that
> would give the same or better results. I have some precision capacitors
> so that's no problem.
> Thanks,
> Alan
> VK2TWB
>
These days the way to do it would be to use a DSP. If this is for a receiver the DSP would have two A/D converters and a single D/A unit. The DSP would combine the two quadature signals and apply bandwidth filtering. The quadature RF drive to the mixer would come from a DDS circuit with both sine and cosine waveform outputs (AD9853/54).

For a transmitter the DSP would have a single A/D and two D/A stages, and would split the audio into two quadature signals after applying bandwidth limiting and compression filtering.

Having said this, I wish I knew how to write the required DSP software! However I'm sure there are some reading this list with the required skill (talent?). (My software experience lies in other areas, such as embedded controllers, NOT math with imaginary numbers!).

206. Re: gibert cell in glass? (aka no nukes is good nukes)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-14 22:49:25 UTC
From: Ken Scharf <wa2mzeNOTTHIS@bellsouth.net>
Message-ID: <mSpzc.4143$IF3.437@bignews5.bellsouth.net>
Source record: 25588

The Eternal Squire wrote:
> 2) In response to our conventional defense of Taiwan when China
> inevitably loses patience and invades, China fires a single large
> coldbringer warhead in the ionosphere above the center of the
> continental US. The purpose of a coldbringer is not to ruin a city,
> although it still might very well do so. It is to generate a large
> EMP across the country to ruin a country's ability to communicate or
> compute, thereby ruining thier economy and ability to mobilize
> anything larger than a single army or marine division for some period
> of years.
>
> It is most likely the unwritten policy within members of UN Security
> Council that a massive retalitation will never be made in response to
> the detonation of a single warhead. China would likely say: "oops,
> so sorry, it was an accident, some general had an itchy trigger
> finger. We'll execute him and make reparations.". Plausible
> deniability. In the meantime, our country is powerless to defend
> Taiwan because while our teeth might be there, our supply lines still
> originate in the US. China then conquers Taiwan with ease.
>
> In a scenario like this, the entire country will be physically
> unharmed but will be in chaos, needing operators with equipment not
> damaged by EMP. I'd like my daughter to be able to help out if she
> can.
>
> That's all I have to say for tonight.
>
> The Eternal Squire
I think if this happened we just might also have an 'oops' and a single
thermo nuke would go off high in the atmosphere above China. "There,
we're even." (This isn't a "massive retalitation", so it's allowed under
UN policy). Now both sides can blindly stumble about in Taiwan.

207. Re: superhet rx homebrew

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-15 01:52:43 UTC
From: mcalhoun@ksu.edu
Message-ID: <calkpb$b79@unix2.cc.ksu.edu>
Source record: 25589

>....[snip]....
>ps - currently building the Ashar Farhan BITX20 20m ssb transceiver -
>a lovely design, absolute miminal implementation of a complex device.

Yes, a really-nice design, but I just received email from Ashar saying
that he was correcting (LM386 pins 5 and 6 are reversed, for example)
and updating (to make it more sensitive?) the BITX20 article in a few
days, so you might want to wait or contact him directly.

--Myron.
--
Five boxes preserve our freedoms: soap, ballot, witness, jury, and cartridge
PhD EE (retired). "Barbershop" tenor. CDL(PTXS). W0PBV. (785) 539-4448
NRA Life Member and Certified Instructor (Home Firearm Safety, Rifle, Pistol)

208. Re: "JDM" pic programmer 2

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-15 02:38:22 UTC
From: Dennis <dennis@nospam>
Message-ID: <10cso7ctj0p1i1a@corp.supernews.com>
Source record: 25590

Ken Scharf wrote:

> I added a diode in series with the VPP output from the emitter or Q1
> (with the anode toward Q1's emitter) and a second shut diode
> from the MCLR pin to VSS (anode toward VSS). Now the VPP voltage
> at MCLR swings from -0.05v to +12.6 volts. I hope that's enough
> VPP. I may have to change out the 8.2v zener, I measured the voltage
> across it and it appears on the low side. I could also just connect
> a 1n4001 or two in series with it to raise the vpp supply.
>
> Anyway seems the programmer is safe now. Still need to put a scope
> to the PGC and PGD lines and check they are in spec.

When I modified my PicStart Plus Microchip specified the voltage should be 12.75-13.25. Microchip had a mod to lower the voltage from nominal 13.75 to nominal 13.0 for the newer chips (new about 7 years ago).

209. Re: 90 degree phase shifter

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-15 03:33:52 UTC
From: farhan@phonestack.com
Message-ID: <fcc11bcf.0406141933.54ea1ce1@posting.google.com>
Source record: 25591

Alan Peake wrote:

> Having said this, I wish I knew how to write the required DSP
> software! However I'm sure there are some reading this list
> with the required skill (talent?). (My software experience
> lies in other areas, such as embedded controllers, NOT
> math with imaginary numbers!).

alan,

you don't really have to know a lot of DSP to play around with this particular beast. very simply, you collect the audio samples in a first-in first-out buffer of about 250 slots. Each time a new sample is added at one end, a sample is retired at the other end.

each of the 90 degree phase shift-ed samples is generated by simpy multiplying all the samples in the pipe with a individual 'magic' constants and adding them all up together. pretty basic stuff as far as programming goes. the magic constants are themselves quite complex to calculated, but that work has alread been done for you. The CD accompanying EMRFD has those constants in a text file under the DSP folder.

it is really simple. all the controls are soft and you can play with a bunch of things.

if you were considering the analog route, i think polyphase approach is simply the best : it is simple and without any tune-up and the results are on par with the best DSP can offer.

- farhan

210. FA: MORE MULTIPLE LOTS of Various Electronic Components

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-15 03:47:54 UTC
From: jrakar@jrakar.com
Message-ID: <a4610d73.0406141947.6cb6eef7@posting.google.com>
Source record: 25592

```
================================================================================

Please check out MORE of our MULTIPLE LOTS of Various Electronic Components
on eBay this week:

LOT of Various Electronic Components :: Lot # 8
http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=4660&item=3821888017

LOT of Various Electronic Components :: Lot # 9
http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=4660&item=3821888166

LOT of Various Electronic Components :: Lot # 12
http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=4660&item=3821888309

LOT of Various Electronic Components :: Lot # 13
http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=4660&item=3821888454

LOT of Various Electronic Components :: Lot # 21
http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=4660&item=3821889522

LOT of Various Electronic Components :: Lot # 22
http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=4660&item=3821889731

LOT of Various Electronic Components :: Lot # 23
http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=4660&item=3821891248

LOT of Various Electronic Components :: Lot # 24
http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=4660&item=3821891464

LOT of Various Electronic Components :: Lot # 25
http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=4660&item=3821892727

LOT of Various Electronic Components :: Lot # 26
http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=4660&item=3821892981

LOT of Various Electronic Components :: Lot # 27
http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=4660&item=3821893501

LOT of Various Electronic Components :: Lot # 28
http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=4660&item=3821894623

LOT of Various Electronic Components :: Lot # 29
http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=4660&item=3821894940

LOT of Various Electronic Components :: Lot # 30
http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=4660&item=3821895668

LOT of Various Electronic Components :: Lot # 31
http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=4660&item=3821895950
```

LOT of Various Electronic Components :: Lot # 32
http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=4660&item=3821896507

LOT of Various Electronic Components :: Lot # 33
http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=4660&item=3821896684

LOT of Various Electronic Components :: Lot # 34
http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=4660&item=3821897329

LOT of Various Electronic Components :: Lot # 35
http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=4660&item=3821897518

LOT of Various Electronic Components :: Lot # 36
http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=4660&item=3821897782

LOT of Various Electronic Components :: Lot # 37
http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=4660&item=3821898029

LOT of Various Electronic Components :: Lot # 38
http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=4660&item=3821898252

LOT of Various Electronic Components :: Lot # 39
http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=4660&item=3821898458

LOT of Various Electronic Components :: Lot # 40
http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=4660&item=3821898695

Thanks,

Jerry

==========

Please also check out our Web pages:

Main Electronic Components page at:
http://www.jrakar.com/glw/electronics/ec.htm

Capacitors for Sale page at:
http://www.jrakar.com/glw/electronics/caps.htm

Crystals for Sale page at:
http://www.jrakar.com/glw/electronics/crystals.htm

DIP Switches for Sale page at:
http://www.jrakar.com/glw/electronics/dipswitches.htm

ICs for Sale page at:
http://www.jrakar.com/glw/electronics/ics.htm

Relays for Sale page at:
http://www.jrakar.com/glw/electronics/relays.htm

Sockets for Sale page at:
http://www.jrakar.com/glw/electronics/sockets.htm

Main Web Page at: www.jrakar.com

:: Thank You ::

==========

211. schematic wanted

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-15 04:08:37 UTC
From: Alfred Lorona <w6wqc@dslextreme.com>
Message-ID: <2j7b2qFtqb0sU1@uni-berlin.de>
Source record: 25593

I need a schematic for an Elpac 12 VDC, 20 A. power supply: Model ELV250-12.

Tnx. AL

212. Re: 90 degree phase shifter

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-15 05:30:00 UTC
From: Alan Peake <adpeake@killspam.internode.on.net>
Message-ID: <40CE8958.1000809@killspam.internode.on.net>
Source record: 25594

Thanks for the suggestions. I'm reluctant to use the computer as I'm on solar power and can't use the machine for too long, particularly on cloudy days in winter - such as today.
I do have some DSP stuff though - ADSP2100- but as it's fixed point, I'm not sure if it has the precision needed.
I really want to use this an exciter and while filters are probably easier, the phasing method always struck me as more "elegant".
73s
Alan

213. Re: 90 degree phase shifter

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-15 05:32:10 UTC
From: Alan Peake <adpeake@killspam.internode.on.net>
Message-ID: <40CE89DA.1010302@killspam.internode.on.net>
Source record: 25595

> Thanks Farhan. I actually used 0.1% resistors, and matched the capacitors
> also to 0.1% by adding parallel capacitance. Of course, all that could
> change with temperature due to the different parallel capacitances drifting
> different amounts.

This may be why the 2Q4 network is enclosed in a can. The can may also
be filled with something like thermal grease to keep all the components
at the same temperature.
Alan

214. Re: 90 degree phase shifter

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-15 05:33:58 UTC
From: Alan Peake <adpeake@killspam.internode.on.net>
Message-ID: <40CE8A46.5010202@killspam.internode.on.net>
Source record: 25596

> The 2Q4 was an 8-pin plug-in (octal?) and this is how it is shown in
> the 51SB-B sideband generator schematic.
>
> Pin 1 - 680pF - 487k - Pin 2 - 770k||430pF - Pin 3
>
> Pin 5 - 680pF - 125k - Pin 6 - 198k||430pF - Pin 7
>
> Pins 1 & 5 were strapped and fed with one side of a balanced, band-
> limited audio input and 3 & 7 (also strapped) with the other. Phase-
> shifted outputs were then taken from 2 & 6. I guess that 4 or 8 could
> have been a grounded shell.
>
> I haven't worked it out but wouldn't be surprised if these are not
> just Wein Bridge values for a certain frequency.
>
>
> Cheers - Joe

Many thanks Joe - I'll put those values into my
simulator and see what comes out.
Cheers,
Alan

215. Re: gibert cell in glass? (possible circuit!)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-15 05:36:11 UTC
From: eternalsquire@comcast.net
Message-ID: <904dab11.0406142136.1fe14a2@posting.google.com>
Source record: 25500

I found something that I *think* comes close to what I want, but
I am not sure. Look at Figure 7 on the bottom of:

http://laplaza.org/~fvuotto/mustage.html

Assuming I had the correct values for R's and C's for broadband
RF operation, it looks as though I could put VFO on one input and
RF on the other input, getting IF's about 90 degrees apart for
use in IQ demodulation.

Do you all read the same thing that I do?

Thanks,

The Eternal Squire

216. Re: 90 degree phase shifter

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-15 05:36:27 UTC
From: Alan Peake <adpeake@killspam.internode.on.net>
Message-ID: <40CE8ADB.9060107@killspam.internode.on.net>
Source record: 25497

JGBOYLES wrote:
> Pin 1 - 2 : 680pF in series with 487k
>
> Pin 2 - 3 : 430pF in parallel with 770k
>
> Pin 5 - 6 : 680pF in series with 125k
>
> Pin 6 - 7 : 430pF in parallel with 198k
>
> Inputs across 1/5 and 3/7 with the quadrature outputs from 2
> and 6.
>
> Bama website has the schematic of the B&W transmitter
>
>
> 73 Gary N4AST
Thanks Gary,
Alan

217. Re: 90 degree phase shifter

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-15 05:38:11 UTC
From: Alan Peake <adpeake@killspam.internode.on.net>
Message-ID: <40CE8B43.6070707@killspam.internode.on.net>
Source record: 25498

>
> For a transmitter the DSP would have a single A/D and two D/A
> stages, and would split the audio into two quadature signals
> after applying bandwidth limiting and compression filtering.

How about doing an FFT then the inverse which IIRC gives orthogonal outputs?
Alan

218. Re: 90 degree phase shifter

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-15 05:40:04 UTC
From: Alan Peake <adpeake@killspam.internode.on.net>
Message-ID: <40CE8BB4.5060400@killspam.internode.on.net>
Source record: 25499

Ashhar Farhan wrote:

> you don't really have to know a lot of DSP to play around with this
> particular beast. very simply, you collect the audio samples in a
> first-in first-out buffer of about 250 slots. Each time a new sample
> is added at one end, a sample is retired at the other end.
>
> each of the 90 degree phase shift-ed samples is generated by simpy
> multiplying all the samples in the pipe with a individual 'magic'
> constants and adding them all up together. pretty basic stuff as far
> as programming goes. the magic constants are themselves quite complex
> to calculated, but that work has alread been done for you. The CD
> accompanying EMRFD has those constants in a text file under the DSP
> folder.

Does this approximate the Hilbert Transform?
Alan

219. Re: FA: MORE MULTIPLE LOTS of Various Electronic Components

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-15 05:50:27 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <D6wzc.21372$IN.5819@edtnps84>
Source record: 25501

Hi Jerry,

Why don't you sell to Canada?

Thanks,

--
Gregg
It's probably useful, even if it can't be SPICE'd
http://geek.scorpiorising.ca

220. Re: WJ TWT pinout?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-15 06:04:06 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <MPG.1b37a3ee9d9ffdd69896bc@news-central.giganews.com>
Source record: 25502

In article <2j6ddbFtvo8rU1@uni-berlin.de>, *@*.com says...
> Hi,
> I have a WJ 3041-1 low noise TWT 7 to 12.4 Ghz (NOS)
> And I am looking for the pinout of the connector, 7 pins, 5 wired up
> for AC power primarily.
> Thanks in advance
>
>
>

You might try the WA1MBA microwave list
(http://www.wa1mba.org/reflect.htm). Someone there will likely be able
to answer this one.

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam
---

221. looking for design assistence

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-15 09:03:31 UTC
From: edwgo@evdh.net
Message-ID: <cea56ec4.0406150103.291cf78b@posting.google.com>
Source record: 25503

I'm looking for somebody who wants to collaborate on the design issues related to my new version of Radioscape that will take place in August. I want to improve the electronic design of the transmitters and the receivers. Also I want to experiment with different forms of antenna's.

In the year 2000 I realised my first version of Radioscape for Festival aan de Werf in Utrecht, Holland.
I distributed 12 transmitters over the city center of Utrecht. Each of the transmitters was broadcasting a different layer of the electronic composition that I made for Radioscape. The transmitters were broadcasting DSBSC, all on the same frequency.
The audience could explore the city by walking through the city with a singel signal DC phasing receiver (without AGC!). By walking through the city you mix your own combination of the differently transmitted signals.
there is some documentation on http://www.evdh.net/radioscape.html

For the new version of Radioscape I'm using the orchestra as metaphor for the city. I have made a meta composition for different groups of acoustic instruments. The signal of each transmitter will be corresponding with one of the groups. While your walking through the city you can also say that you're walking through the orchestra.

I'm looking for somebody who wants to advise/collaborate with me on the changes and improvements of the design.
The following issues are important to me to improve:
- The receiver was based on two NE602's and a sense antenna. I'm thinking about exchanging the NE602's for a Tayloe detector (QRP2001) or a R1/R2 based receiver and exchanging the sense antenna for a ferrite rot antenna.
- I've been using horizontal wire based transmitter antenna's (+/- 6 meter) with a loading coil and a (kind of) vertical(!) ground plane. I want to experiment with (multiturn) magnetic loop antenna's with a maximum diameter of 1 meter.
- I've been using the AMP1 (hands kit's) as transmitters because the antenna's were so inefficient. I'm looking for a good transmitter to fit the outcome of the experiments. I guess much less transmitter power is needed.
- The frequency I'll be using is 1,725 mHz with a bandwidth of +/-15kHz.
- In case the collaboration goes beyond the role of just advising there is some money available for compensation.

I'm looking forward for reactions!

kind regards,

Edwin van der Heide
Rotterdam, Holland
(I'm not necessarily looking for somebody in Holland)

222. Re: superhet rx homebrew

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-15 09:29:06 UTC
From: ablight@alphalink.com.au
Message-ID: <1fc7b362.0406150129.273e9178@posting.google.com>
Source record: 25504

mcalhoun@ksu.edu wrote in message news:<calkpb$b79@unix2.cc.ksu.edu>...
> >....[snip]....
> >ps - currently building the Ashar Farhan BITX20 20m ssb transceiver -
> >a lovely design, absolute miminal implementation of a complex device.
>
> Yes, a really-nice design, but I just received email from Ashar saying
> that he was correcting (LM386 pins 5 and 6 are reversed, for example)
> and updating (to make it more sensitive?) the BITX20 article in a few
> days, so you might want to wait or contact him directly.
>
> --Myron.

Hi Myron,
yep, figured out the transposition on pins 5 and 6 of the LM386 - when it wouldnt work! - took me a while to figure it out - a good fault finding exercise!, and got the disused grey matter functioning again - I honestly believe you learn very little from something that works straight off, its when it doesnt you have to activate the (in my case at least) long disused brain cells......

Have built the audio amp and the VFO - both working well. Am doing it modular and troubleshooting each one as I go - next step is IF amps. Did the audio amp "Manhattan" style using the NJQRP pad cutter and wound up doing a PCB for the VFO - not being smart, just trying to learn PROTEL pcb design at the same time hi hi.

Have corresponded with Ashar, he is making noises about a mailing list for the BITX20 constructors - an excellent idea to share ideas/disasters/general stuffing around/triumphs etc in the true spirit of homebrew...(and, dare I say it, Amateur Radio)
73 de VK3BFA Andrew

223. Please I' need Help because Im in Ghetto.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-15 14:17:22 UTC
From: Zoran Dimitrijevic <zorandi@EUnet.yu>
Message-ID: <can0ct$5cd$1@news.eunet.yu>
Source record: 25505

Unbelievable a My story
Dear Sir,
Please I' need Help because Im in Ghetto.
After fortyone years my life, former ignorance nothing about own parentage, first time cognition for own parentage and this owing character and feature positive, neredity parentage one of most historical character of Serbia. Considering that myself come to improbable argument cognition abut project of extermination Serbia also off eighten sentury, I pleasure my story to divide with publicity to be entiled to they know who and what is done last 200 years, since today and they have pretence to know rightly truth, and how are turn historical character and how adversity done to myself and my parentage this country and this nation.

Decade secrecy this nation, only this and my, after 5. Ocotober 2000, as normal citizen, uncompromising with injustice, last discerning chance for realization principal right, who is all of my life refuse, and I am unlock gate of evil, my insatiable hunger of right, on bizarre mode relate myself to cognition parentage of Obrenovic Royal dinasty of Serbia, and only of this my pedigree.

Fact that I am never can to receive replay; who is my ancestral. Fact is, trought my life like sign opserve me number 13. My father is born 1.3.1925, I am born 13.5.1962, cadastral number placing in my ownership is 1305/45, number of my house is 13, that is place where I am living, throug is first in beginning street. In community registry houses numbers in my houses numbers is enrol name of nameless person.
Oddity which does heppen to myself, present in many bizzare randomness and yet variant abnormal and oddity feature, and particulary, that because anything of my reference competance institution rezult obscure respond which bring theirs in criminal act and same of this explicitly evidence this.Every penal process who is I animate is pass in extremly unaccountble mode, and prosecutors ourself relate in, with explicitly data, on inquest like convictig. My family and myself brow of regional police court, Elektrodistribucija, Telekom and likevise. In unwonted mode with one letter with argument against organize criminal who is myself send (26.2.2003) late premier Dr. Zoran Djindjic, who is murder when my senior son is birthday, and after 100 years of murder last Obrenovic, 1.3.2003 myself do extrude smutty cash 20000 DM, organize criminal in Telekom what is showed on Beogradska hronika Belgrade cronicle - RTS, afterwards diector territory management Telekom Milan Zdavkovic is deprivation. I reference special prosecutor with own argument of mode how is murder premier, not reveive answer. Disregarding on my higt technical practice in sphere electronics (project), computer (program design and service), mobile phone etc., eminently approve patent crown "silver medal" with shape Nikola Tesla, and with participation in scientific programme RTS, existence my family and

myself is continually control on reef hunger. Otherwise on my family and myself is in often perpetration experiment removal, but considering that I know how they observance removal, they further attempt is neutralize.

Every this unlikly doings relate myself to argument cognition that is Kremansko prorocanstvo sect project holocaust Serbia for interest dinasty Karadjordjevic, church and afterwards UDB-e, and to currents days in every phase generation war. Because myself, my parentage who is decade edit on untruth mode and because nation, I must and sedire afore public expose true and identification, recognize, primary reason every badly feature who is doings this country.
Dear sir, considering that I own cululative material, and for fact that myself afore competent institution infirm, what demonstrative myself report ministry of repulica Serbia, special anpublic prosecutor V municipal court, becouse is eminently political specimen identified by myself, member of conspiracy I request to urgency for interview of detal amount rightly historical truth about Serbia in organ whom, if interested.
Dear, Sir, this story myself possibly warrant, unhoped interest for yourself organ, interest is above all is after 200 years raise onside truth, I hope yourself invite myself on interview and let my to expose irrefutable fact and argument on 300 strike page.
E.G. Argument how Elektrodistribucija (head electric hose in Serbia) perfidy steal nation in enormity mode, how Telekom (haed Communication house in Serbia) wash smutty money, how is individual, parapsiholoski operate raven safe community etc.
http://www30.brinkster.com/aferatelekom (some of my letters without answer) and
http://www30.brinkster.com/aferatelekom/Obrenovici.htm or download
http://www30.brinkster.com/aferatelekom/Obrenovici.zip
and much more argument not in thise web page.

Sincerely regard

Zoran Dimitrijevic
Dr. Aleksandra Kostica 13
11306 Beograd - Grocka
Tel. 381-11-850-13-49 381-63-210-302 381-64-2562-990

zorandi@EUnet.yu
nacomp@EUnet.yu

224. Unbelievable a My story

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-15 14:55:06 UTC
From: Zoran Dimitrijevic <zorandi@EUnet.yu>
Message-ID: <can2pd$685$3@news.eunet.yu>
Source record: 25506

Unbelievable a My story
Dear Sir,
Please I' need Help because Im in Ghetto.
After fortyone years my life, former ignorance nothing about own parentage, first time cognition for own parentage and this owing character and feature positive, neredity parentage one of most historical character of Serbia. Considering that myself come to improbable argument cognition abut project of extermination Serbia also off eighten sentury, I pleasure my story to divide with publicity to be entiled to they know who and what is done last 200 years, since today and they have pretence to know rightly truth, and how are turn historical character and how adversity done to myself and my parentage this country and this nation.

Decade secrecy this nation, only this and my, after 5. Ocotober 2000, as normal citizen, uncompromising with injustice, last discerning chance for realization principal right, who is all of my life refuse, and I am unlock gate of evil, my insatiable hunger of right, on bizarre mode relate myself to cognition parentage of Obrenovic Royal dinasty of Serbia, and only of this my pedigree.

Fact that I am never can to receive replay; who is my ancestral. Fact is, trought my life like sign opserve me number 13. My father is born 1.3.1925, I am born 13.5.1962, cadastral number placing in my ownership is 1305/45, number of my house is 13, that is place where I am living, throug is first in beginning street. In community registry houses numbers in my houses numbers is enrol name of nameless person.
Oddity which does heppen to myself, present in many bizzare randomness and yet variant abnormal and oddity feature, and particulary, that because anything of my reference competance institution rezult obscure respond which bring theirs in criminal act and same of this explicitly evidence this.Every penal process who is I animate is pass in extremly unaccountble mode, and prosecutors ourself relate in, with explicitly data, on inquest like convictig. My family and myself brow of regional police court, Elektrodistribucija, Telekom and likevise. In unwonted mode with one letter with argument against organize criminal who is myself send (26.2.2003) late premier Dr. Zoran Djindjic, who is murder when my senior son is birthday, and after 100 years of murder last Obrenovic, 1.3.2003 myself do extrude smutty cash 20000 DM, organize criminal in Telekom what is showed on Beogradska hronika Belgrade cronicle - RTS, afterwards diector territory management Telekom Milan Zdavkovic is deprivation. I reference special prosecutor with own argument of mode how is murder premier, not reveive answer. Disregarding on my higt technical practice in sphere electronics (project), computer (program design and service), mobile phone etc., eminently approve patent crown "silver medal" with shape Nikola Tesla, and with participation in scientific programme RTS, existence my family and

myself is continually control on reef hunger. Otherwise on my family and myself is in often perpetration experiment removal, but considering that I know how they observance removal, they further attempt is neutralize.

Every this unlikly doings relate myself to argument cognition that is Kremansko prorocanstvo sect project holocaust Serbia for interest dinasty Karadjordjevic, church and afterwards UDB-e, and to currents days in every phase generation war. Because myself, my parentage who is decade edit on untruth mode and because nation, I must and sedire afore public expose true and identification, recognize, primary reason every badly feature who is doings this country.
Dear sir, considering that I own cululative material, and for fact that myself afore competent institution infirm, what demonstrative myself report ministry of repulica Serbia, special anpublic prosecutor V municipal court, becouse is eminently political specimen identified by myself, member of conspiracy I request to urgency for interview of detal amount rightly historical truth about Serbia in organ whom, if interested.
Dear, Sir, this story myself possibly warrant, unhoped interest for yourself organ, interest is above all is after 200 years raise onside truth, I hope yourself invite myself on interview and let my to expose irrefutable fact and argument on 300 strike page.
E.G. Argument how Elektrodistribucija (head electric hose in Serbia) perfidy steal nation in enormity mode, how Telekom (haed Communication house in Serbia) wash smutty money, how is individual, parapsiholoski operate raven safe community etc.
http://www30.brinkster.com/aferatelekom (some of my letters without answer) and
http://www30.brinkster.com/aferatelekom/Obrenovici.htm or download
http://www30.brinkster.com/aferatelekom/Obrenovici.zip
and much more argument not in thise web page.

Sincerely regard

Zoran Dimitrijevic
Dr. Aleksandra Kostica 13
11306 Beograd - Grocka
Tel. 381-11-850-13-49 381-63-210-302 381-64-2562-990

zorandi@EUnet.yu
nacomp@EUnet.yu

225. FET AMP POWER SUPPLY

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-15 17:05:00 UTC
From: Jimmy <Gfender@carolina.rr.com>
Message-ID: <0%Fzc.52132$tH1.1847740@twister.southeast.rr.com>
Source record: 25507

I want to power my FET amp(200W) from a mobile power supply. Amp requires 50VDC. It occured to me that car stereo amps use DC to DC converters that would produce the voltages and currents that I need. Would like information on where I could get parts/information to roll my own. I am particularily intersted in the transformer design and where I could get one already made. This doesnt seem to be something one can get easily as a replacement part.

226. Re: superhet schematics

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-15 17:21:08 UTC
From: Jimmy <Gfender@carolina.rr.com>
Message-ID: <8eGzc.52135$tH1.1850829@twister.southeast.rr.com>
Source record: 25508

"aadu" <aadu.adok@hansa.ee> wrote in message
news:ecaefe2f.0406110048.39679f0f@posting.google.com...
> hi,
>
> I'm planning to build a superhet receiver - for learning and for fun.
> I have looked at Doug Demaw 'barebones (QST june 82)'.
> Any other schematics/recommendations for first time superhet receiver
project?
>
> thanks,
> aadu
My first superhet project was a 5 tube AM rx. First was to asseble it on a breadbord and then in the chassis. After assembly on a breadboard things went a little crazy from there. Added rf amp, added ham band converters,bfo, more if stages,crystal filter, Q mult,audio filters,...and so on. After about a year there was very littleof the of 5 tube radio left on the board andI never put this thing on a decent chassis but kept it aound for many years of use.

Second ome was solidstate with each section of the radio built on its own little PC board. Each section was built and tested then added to the radio and retested. Kind of cheated on the radio because the VFO was my shop signal generator. Radio performed well but was never as much fun as the first for some reason.

227. Re: FET AMP POWER SUPPLY

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-15 17:26:39 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10cuca2r0r03f8d@corp.supernews.com>
Source record: 25509

Jimmy wrote:

> I want to power my FET amp(200W) from a mobile power supply. Amp requires
> 50VDC. It occured to me that car stereo amps use DC to DC converters that
> would produce the voltages and currents that I need. Would like information
> on where I could get parts/information to roll my own. I am particularily
> intersted in the transformer design and where I could get one already made.
> This doesnt seem to be something one can get easily as a replacement part.
>
>

With those power levels you're probably dealing with custom magnetics.
There's a switcher in the '04 handbook with the right power level, I'd
consider basing your magnetics on that, or at least use the stacked
E-core idea.

Barring that you could try to get your hands on someone's surplus car
stereo equipment, and harvest the power supply section from that. You
may also want to shop the surplus suppliers for DC-DC converters. 48V
is a common telco voltage, there ought to be bricks (or combinations of
them) that would step you up from 12V nicely.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

228. Re: 90 degree phase shifter

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-15 19:13:12 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <canhse$sg3$1@newshost.mot.com>
Source record: 25510

"Alan Peake" <adpeake@killspam.internode.on.net> wrote in message
news:40CE8A46.5010202@killspam.internode.on.net...
>
>
> > The 2Q4 was an 8-pin plug-in (octal?) and this is how it is shown in
> > the 51SB-B sideband generator schematic.
> >
> > Pin 1 - 680pF - 487k - Pin 2 - 770k||430pF - Pin 3
> >
> > Pin 5 - 680pF - 125k - Pin 6 - 198k||430pF - Pin 7
> >
> > Pins 1 & 5 were strapped and fed with one side of a balanced, band-
> > limited audio input and 3 & 7 (also strapped) with the other. Phase-
> > shifted outputs were then taken from 2 & 6. I guess that 4 or 8 could
> > have been a grounded shell.
> >
> > I haven't worked it out but wouldn't be surprised if these are not
> > just Wein Bridge values for a certain frequency.
> >
> >
> > Cheers - Joe
>
> Many thanks Joe - I'll put those values into my
> simulator and see what comes out.
> Cheers,
> Alan
>

Alan,
Remembering back... there were two common designs. The difference
depended upon the rest of the circuit. I believe it had to do with the load
impedance presented to the network by the rest of the circuit.

--
Steve N, K,9;d, c. i My email has no u's.

229. Re: FET AMP POWER SUPPLY

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-15 22:04:07 UTC
From: Highland Ham <abgm0csz.kn6whyz@ntlworld.com>
Message-ID: <UgLzc.1415$D01.1295@newsfe2-win>
Source record: 25511

> > I want to power my FET amp(200W) from a mobile power supply. Amp
requires
> > 50VDC. It occured to me that car stereo amps use DC to DC converters
that
> > would produce the voltages and currents that I need. Would like
information
> > on where I could get parts/information to roll my own. I am
particularily
> > intersted in the transformer design and where I could get one already
made.
> > This doesnt seem to be something one can get easily as a replacement
part.
> >
> >
>
> With those power levels you're probably dealing with custom magnetics.
> There's a switcher in the '04 handbook with the right power level, I'd
> consider basing your magnetics on that, or at least use the stacked
> E-core idea.
>
> Barring that you could try to get your hands on someone's surplus car
> stereo equipment, and harvest the power supply section from that. You
> may also want to shop the surplus suppliers for DC-DC converters. 48V
> is a common telco voltage, there ought to be bricks (or combinations of
> them) that would step you up from 12V nicely.
==========
A solution could be using an off the shelf 12V-DC to 115V or 230V -AC
inverter with an AC to 48V-DC (surplus) power supply unit from the telco
industry . Perhaps not so elegant and a bit bulky ,but readily available.
The AC to 50V-DC power supply unit can also be readily homebrewed with
standard components .With 115 V-AC input , a surplus 2:1 step down
transformer available from the surplus trade would do the trick.
BTW some time ago at a flea market I bought a 230V to 50V-15Amperes
transformer for equiv. US$ 0.50.....yes it is a heavy beast , !
Perhaps that's why it was available for 50 cents.

Although at a much lower power level ,this is the usual way providing power
to a laptop computer in a motor vehicle.

Frank GM0CSZ / KN6WH

230. Re: 90 degree phase shifter

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-16 05:06:52 UTC
From: farhan@phonestack.com
Message-ID: <fcc11bcf.0406152106.6f1db0f3@posting.google.com>
Source record: 25512

Alan Peake <adpeake@killspam.internode.on.net> wrote in message
news:<40CE8BB4.5060400@killspam.internode.on.net>...

> > each of the 90 degree phase shift-ed samples is generated by simpy
> > multiplying all the samples in the pipe with a individual 'magic'
> > constants and adding them all up together. pretty basic stuff as far
> > as programming goes. the magic constants are themselves quite complex
> > to calculated, but that work has alread been done for you. The CD
> > accompanying EMRFD has those constants in a text file under the DSP
> > folder.
>
> Does this approximate the Hilbert Transform?

yes it does. theoretically speaking, Hilbert transform is Finite
Impulse Response filter implmented with a specific set of
coefficients. the FIR itself is pretty simple. just an array of
incoming samples. each time a new sample is inserted, you generate a
new output by running a loop through the previous n samples.

pipe has space for n samples at a time.
HilbertTable has n number of coefficients.

```
for (each incoming sample)
{
add sample to the begining of the pipe, pushing out the oldest
sample from the other end;

ouputSample = 0;

for (i = 0; i < n; i++)
outputSample = outputSample + (HilberTable[i] * pipe[i]);

output the sample;
}
```

This will give you 90 degrees phase shift.

i have written a dsp shell which will read samples from the sound card
and write them back to the sound card. you can get the source code
from http://www.phonestack.com/farhan

- farhan

231. Re: FET AMP POWER SUPPLY

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-16 06:40:53 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <89nvc0dn0okjqggds8418fioutcvu5kcma@4ax.com>
Source record: 25513

On Tue, 15 Jun 2004 10:26:39 -0700, Tim Wescott
<tim@wescottnospamdesign.com> wrote:

>Barring that you could try to get your hands on someone's surplus car
>stereo equipment, and harvest the power supply section from that.

Why not install a high power audio and RF amplifier in the car and
feed them from a common power supply, since you can not use those two
amplifiers simultaneously anyway :-).

Take a suitable high power audio amplifier, install a switch over
relay between the inverter and the actual audio amplifier. When the
PTT is pushed, the relay switches the power to the RF amplifier. All
the other time you can listen to the music (or to a QSO) at a high
audio volume :-).

One problem is that the RF amplifier requires a unipolar +50 Vdc
supply, while audio amplifiers usually have a bipolar supply. Running
the RF amplifier from a bipolar supply would require transformer
coupled inputs and outputs and isolation of the circuit board ground
from the chassis.

Some bridged audio amplifiers may have a unipolar power supply or it
may be possible to use only the positive side of a +/- 50 V bipolar
supply (but may require rectifiers with a higher rating).

A simple audio amplifier driven from a unipolar 50 V or +/- 25 V
bipolar supply will produce about 56 or 112 W into 4 resp. 2 ohms per
channel. In a bridged configuration 110 or 220 W into 8 resp. 4 ohms
per channel.

With a +/-50 V supply, a simple audio amplifier would produce 110, 220
or 440 W into 8, 4 resp. 2 ohms into a single channel.

I think that looking at the audio amplifier power specifications (into
various loads) should give a hint of what kind of amplifier voltages
are used and thus limit the number of candidates worth investigating.
It should be noted that even if some amplifiers are rated at 2x100 W
or 4x100 W, it is very unlikely, that the power supply is capable of
delivering more than one channel at the rated power for any prolonged
time.

The audio amplifier power supply RFI filtering may be more or less
nonexistent, so you may have to add quite a lot of filtering.

Paul OH3LWR

232. Re: 90 degree phase shifter

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-16 07:32:30 UTC
From: Alan Peake <adpeake@killspam.internode.on.net>
Message-ID: <40CFF78E.4030701@killspam.internode.on.net>
Source record: 25514

> i have written a dsp shell which will read samples from the sound card
> and write them back to the sound card. you can get the source code
> from http://www.phonestack.com/farhan
>
> - farhan

OK, thanks for that - I've just downloaded it.

Alan

233. BITX20 Superhet Transceiver for 20m SSB

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-16 10:13:52 UTC
From: Hans Summers <hans.summers@tudor.com>
Message-ID: <2jakr1Fvj2bpU1@uni-berlin.de>
Source record: 25515

Since a number of people are building Ashhar Farhan's 20m Bidirectional SSB transceiver for 20m (see http://www.phonestack.com/farhan/bitx.html), we have created a Yahoo Group for constructors to discuss everything (components, design, problems, modifications, experiences, whatever). See http://groups.yahoo.com/group/BITX20/ .

73 Hans G0UPL
http://www.HansSummers.com

234. Needed- Blank PC boards

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-16 12:53:36 UTC
From: D <enigma_y_2000@yahoo.com>
Message-ID: <CqXzc.2$ln4.3565@news.uswest.net>
Source record: 25516

Hi,

Where can I purchase blank double sided glass epoxy PC boards for making homebrew enclosures?

Thanks,

D
--

235. Re: Unbelievable a My story

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-16 13:30:30 UTC
From: K7MEM <k7mem@myrealbox.com>
Message-ID: <40D04B76.1070404@myrealbox.com>
Source record: 25517

Zoran Dimitrijevic wrote:
> Unbelievable a My story
> Dear Sir,
> ---------- Details clipped -----------

ZZZZZZZZZZZZZZZZZZZZZZZ.....

Oh, I'm sorry. I wasn't listening. What was the question again?

--
Martin E. Meserve
k7mem@myrealbox.com

236. Re: Needed- Blank PC boards

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-16 14:01:40 UTC
From: Leon Heller <leon_heller@hotmail.com>
Message-ID: <40d052c5$0$25326$cc9e4d1f@news-text.dial.pipex.com>
Source record: 25518

"D" <enigma_y_2000@yahoo.com> wrote in message
news:CqXzc.2$ln4.3565@news.uswest.net...
> Hi,
>
> Where can I purchase blank double sided glass epoxy PC boards for making
> homebrew enclosures?

I buy my PCB material from Rapid Electronics:

http://www.rapidelectronics.co.uk

Leon
--
Leon Heller, G1HSM
http://www.geocities.com/leon_heller

237. Re: Needed- Blank PC boards

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-16 14:06:53 UTC
From: Paul_Morphy <nopaul_morphy2@coolgoose.com>
Message-ID: <1uYzc.22085$Di3.12509@bgtnsc05-news.ops.worldnet.att.net>
Source record: 25519

"D" <enigma_y_2000@yahoo.com> wrote in message
news:CqXzc.2$ln4.3565@news.uswest.net...
> Hi,
>
> Where can I purchase blank double sided glass epoxy PC boards for making
> homebrew enclosures?

Ocean State Electronics, oselectronics.com

"PM"

238. Re: Needed- Blank PC boards

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-16 16:53:11 UTC
From: R J Carpenter <rcarpen@erols.com>
Message-ID: <40d088e6$0$3015$61fed72c@news.rcn.com>
Source record: 25521

"D" <enigma_y_2000@yahoo.com> wrote in message
news:CqXzc.2$ln4.3565@news.uswest.net...
> Hi,
>
> Where can I purchase blank double sided glass epoxy PC boards for making
> homebrew enclosures?

I'm slowly using a four-foot-square piece that I bought at a hamfest for $20
($25?). Such a piece wouldn't be too easy to ship.

239. Re: Needed- Blank PC boards

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-16 17:48:01 UTC
From: xpyttl <xpyttl_NOSPAM@earthling.net>
Message-ID: <10d122l3m5gui2f@corp.supernews.com>
Source record: 25520

"D" <enigma_y_2000@yahoo.com> wrote in message
news:CqXzc.2$ln4.3565@news.uswest.net...

> Where can I purchase blank double sided glass epoxy PC boards for making
> homebrew enclosures?

I find hamfests to be the best source; Findlay seems especially good.
Unfortunately, you can rarely find any at the smaller 'fests. Whenever they
are at a hamfest, Far Circuits often has blank scraps at extremely good
prices if you don't need large pieces.

..

240. Re: Needed- Blank PC boards

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-16 18:20:04 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10d13q54qsv0522@corp.supernews.com>
Source record: 25522

D wrote:
> Hi,
>
> Where can I purchase blank double sided glass epoxy PC boards for making
> homebrew enclosures?
>
> Thanks,
>
> D

Check your local surplus supply houses. If you have any local
electronics production they'll have bare board (and it's amazing how
many different places have PC board houses -- it's a business that seems
to do well in the boonies).

For example, Cascade Surplus Electronics and Wacky Willies in Portland
OR have them (the Tektronix country store used to, but they spun off
their PC board house IIRC).

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

241. Re: 90 degree phase shifter

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-16 20:05:14 UTC
From: marsgal42@hotmail.com
Message-ID: <d42b5a72.0406161205.332f4040@posting.google.com>
Source record: 25523

Alan Peake <adpeake@killspam.internode.on.net> wrote in message
news:<40CE8BB4.5060400@killspam.internode.on.net>...
> Ashhar Farhan wrote:
>
> > you don't really have to know a lot of DSP to play around with this
> > particular beast. very simply, you collect the audio samples in a
> > first-in first-out buffer of about 250 slots. Each time a new sample
> > is added at one end, a sample is retired at the other end.
> >
> > each of the 90 degree phase shift-ed samples is generated by simpy
> > multiplying all the samples in the pipe with a individual 'magic'
> > constants and adding them all up together. pretty basic stuff as far
> > as programming goes. the magic constants are themselves quite complex
> > to calculated, but that work has alread been done for you. The CD
> > accompanying EMRFD has those constants in a text file under the DSP
> > folder.
>
> Does this approximate the Hilbert Transform?
> Alan

It does if the "magic constants" are right. Consider
the complex frequency response of a Hilbert Transformer
and work out the impulse response. Unlike linear-phase
FIR filters, the impulse response of a Hilbert
Transformer isn't symmetric.

There are whole books on the subject. I have a copy
of _Hilbert Transforms in Signal Processing_ by Hahn,
which goes in to all of this in more than a little
detail. The challenge is turning the theoretical
impulse response (which is infinite) in to something
you can realize on finite hardware.

Laura Halliday VE7LDH "Que les nuages soient notre
Grid: CN89mg pied a terre..."
ICBM: 49 16.05 N 122 56.92 W - Hospital/Shafte

242. Re: Needed- Blank PC boards

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-16 22:55:35 UTC
From: Highland Ham <abgm0csz.kn6whyz@ntlworld.com>
Message-ID: <KYeAc.103$Yx3.43@newsfe3-gui>
Source record: 25534

> > Where can I purchase blank double sided glass epoxy PC boards for making
> > homebrew enclosures?
>
> I find hamfests to be the best source; Findlay seems especially good.
> Unfortunately, you can rarely find any at the smaller 'fests. Whenever
they
> are at a hamfest, Far Circuits often has blank scraps at extremely good
> prices if you don't need large pieces.
====
Indeed Hamfests are a good source ,surely on the European continent where
scraps of suitable sizes (for your purpose) are sold for approx equiv US$ 5
to 8 per kilogramme. Lately ugly construction is on the increase also due
to availability of scrap PCB material (usually double sided).

Frank GM0CSZ / KN6WH

243. Need a low noise VXO for narrow sweep

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-16 23:41:58 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <tem1d0t1a12auub9tfc9bi1dgj786m28vs@4ax.com>
Source record: 25524

Hi

need a low-noise xtal oscillator using 14.7 or 15.7MHz rubber xtals in series mode circuit to sweep xtal filters with good as possible noise distance. The available xtals are believed to pull +/-10kHz or more.

Any suggestions.

73
Jan-Martin, LA8AK
http://home.online.no/~la8ak/c.htm

J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

244. Re: CricuitMaker Student Software Flawed?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-17 00:34:12 UTC
From: K1jhj <k1jhj@oco.net>
Message-ID: <10d1pje7tuifl5e@corp.supernews.com>
Source record: 25525

Hi,
Yes, I have tried doing just that, and it works after a fashion, but not always and not usually very well.

The most recent ARRL handbook (2004) says that very special and expensive software is needed to simulate oscillators properly.

73 de k1jhj

"Ed Bailen" <n5kzw@arrl.net> wrote in message news:p487c0l71bn4rucspkhhfsvrci16ru4r8n@4ax.com...
> The last issue of QST had a short article on the CircuitMaker Student
> edition circuit design package. I downloaded it and spent several
> hours trying various oscillator designs (including the phase shift
> oscillator discussed in the same issue of QST). I couldn't get any of
> the designs to oscillate! I was mainly trying Colpitts oscillators.
>
> Has anyone else tried designing oscillatos with this application?
>
> Thanks,
> Ed Bailen

245. Re: Need a low noise VXO for narrow sweep

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-17 02:37:20 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <MPG.1b3aa3b6156c10829896be@news-central.giganews.com>
Source record: 25526

In article <tem1d0t1a12auub9tfc9bi1dgj786m28vs@4ax.com>, la8ak@online.no
says...
> Hi
>
> need a low-noise xtal oscillator using 14.7 or 15.7MHz rubber xtals in
> series mode circuit to sweep xtal filters with good as possible noise
> distance. The available xtals are believed to pull +/-10kHz or more.
>
> Any suggestions.

Use a DDS hooked up to your PC's parallel port?

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam
---

246. Re: Needed- Blank PC boards

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-17 02:48:31 UTC
From: Mike Coslo <mcoslo@adelphia.net>
Message-ID: <XaadnSVforLim0zd4p2dnA@adelphia.com>
Source record: 25528

Paul_Morphy wrote:

> "D" <enigma_y_2000@yahoo.com> wrote in message
> news:CqXzc.2$ln4.3565@news.uswest.net...
>
>>Hi,
>>
>>Where can I purchase blank double sided glass epoxy PC boards for making
>>homebrew enclosures?
>
>
> Ocean State Electronics, oselectronics.com

Wow! I can't believe I missed this site out there. You earned yer' keep
this week, Paul! Thanks much.

- Mike KB3EIA -

247. Re: CricuitMaker Student Software Flawed?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-17 02:49:02 UTC
From: "J. Yazel" <jyazel@netset.com>
Message-ID: <tc12d0h3l877tckfqm203c2fdu9ropdfuh@4ax.com>
Source record: 25527

```
>
>"Ed Bailen" <n5kzw@arrl.net> wrote in message
>news:p487c0l71bn4rucspkhhfsvrci16ru4r8n@4ax.com...
>> The last issue of QST had a short article on the CircuitMaker Student
>> edition circuit design package. I downloaded it and spent several
>> hours trying various oscillator designs (including the phase shift
>> oscillator discussed in the same issue of QST). I couldn't get any of
>> the designs to oscillate! I was mainly trying Colpitts oscillators.
>>
>> Has anyone else tried designing oscillatos with this application?
>>
>> Thanks,
>> Ed Bailen
> ====================================
```

Not good.

I hope that you will notify ARRL (or have) about this.

If there are serious deficiencies in the software (regardless of whether it is free or not), then possible users should be made aware of them.

Thanks for letting me know, just in case I try to use it.

Jack W8RAG

248. Re: CricuitMaker Student Software Flawed?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-17 03:13:42 UTC
From: John <jmort@despammed.com>
Message-ID: <cargg7$12e$1@newsg3.svr.pol.co.uk>
Source record: 25532

> >"Ed Bailen" <n5kzw@arrl.net> wrote in message
> >news:p487c0l71bn4rucspkhhfsvrci16ru4r8n@4ax.com...
> >> The last issue of QST had a short article on the CircuitMaker Student
> >> edition circuit design package. I downloaded it and spent several
> >> hours trying various oscillator designs (including the phase shift
> >> oscillator discussed in the same issue of QST). I couldn't get any of
> >> the designs to oscillate! I was mainly trying Colpitts oscillators.
> >>
> >> Has anyone else tried designing oscillatos with this application?
> >>
> >> Thanks,
> >> Ed Bailen

I have a Colpitts oscillator running ok in Circuit Maker Student V6.2c.
I can send you the file if you'd like. (small, about 13 kb)

249. Re: CricuitMaker Student Software Flawed?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-17 03:21:27 UTC
From: John <jmort@despammed.com>
Message-ID: <carguonom1@news8.svr.pol.co.uk>
Source record: 25533

"John" <jmort@despammed.com> wrote in message
news:cargg7$12e$1@newsg3.svr.pol.co.uk...
>
> > >"Ed Bailen" <n5kzw@arrl.net> wrote in message
> > >news:p487c0l71bn4rucspkhhfsvrci16ru4r8n@4ax.com...
> > >> The last issue of QST had a short article on the CircuitMaker Student
> > >> edition circuit design package. I downloaded it and spent several
> > >> hours trying various oscillator designs (including the phase shift
> > >> oscillator discussed in the same issue of QST). I couldn't get any
of
> > >> the designs to oscillate! I was mainly trying Colpitts oscillators.
> > >>
> > >> Has anyone else tried designing oscillatos with this application?
> > >>
> > >> Thanks,
> > >> Ed Bailen
> >
> > I have a Colpitts oscillator running ok in Circuit Maker Student V6.2c.
> > I can send you the file if you'd like. (small, about 13 kb)

I should add, there is one thing (at least) that you have to be aware of
with CM. Wires that look like they are connected may not be. Use
Simulation, Check Pin Connections. This should tell you any pins you think
are connected but which CM thinks are not connected.

250. Motorola power supply

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-17 05:20:35 UTC
From: Alfred Lorona <w6wqc@dslextreme.com>
Message-ID: <2jco1tFvg1d0U1@uni-berlin.de>
Source record: 25529

Does anybody know what the output DC current is on a Motorola HPN3000A base station power supply? DC voltage measures 15 VDC.

The pass transistors are two M9639 transistors in TO-3 case. I have not been able to find a data sheet on these guys. Anybody have any info on them?

Thanks. AL

251. Re: Need a low noise VXO for narrow sweep

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-17 05:20:54 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10d2ahlt0hmam30@corp.supernews.com>
Source record: 25530

John Miles wrote:

> In article <tem1d0t1a12auub9tfc9bi1dgj786m28vs@4ax.com>, la8ak@online.no
> says...
>
>>Hi
>>
>>need a low-noise xtal oscillator using 14.7 or 15.7MHz rubber xtals in
>>series mode circuit to sweep xtal filters with good as possible noise
>>distance. The available xtals are believed to pull +/-10kHz or more.
>>
>>Any suggestions.
>
>
> Use a DDS hooked up to your PC's parallel port?
>
> -- jm
>
> --
> http://www.qsl.net/ke5fx
> Note: My E-mail address has been altered to avoid spam
> --

A DDS isn't going to have good enough phase noise. The OP is correct in
using a pullable crystal oscillator.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

252. Re: Need a low noise VXO for narrow sweep

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-17 05:23:01 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10d2alkmh9qim00@corp.supernews.com>
Source record: 25531

J M Noeding wrote:

> Hi
>
> need a low-noise xtal oscillator using 14.7 or 15.7MHz rubber xtals in
> series mode circuit to sweep xtal filters with good as possible noise
> distance. The available xtals are believed to pull +/-10kHz or more.
>
> Any suggestions.
>
> 73
> Jan-Martin, LA8AK
> http://home.online.no/~la8ak/c.htm
> ---
> J. M. Noeding, LA8AK, N-4623 Kristiansand
> http://home.online.no/~la8ak/c.htm

This is a fairly standard circuit -- why not just look in an ARRL manual or one of the many QRP transmitter designs for an oscillator? You can check for phase noise by mixing it with a good (fixed) crystal oscillator, or you can just trust it.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

253. Re: Need a low noise VXO for narrow sweep

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-17 11:35:55 UTC
From: Richard Hosking <richardh@iinet.net.au>
Message-ID: <40D1821B.4030805@iinet.net.au>
Source record: 25535

Why do you need such such good phase noise?
An average oscillator will be good enough to measure to -70 dBc or so.
You could use a DDS with a crystal clock - this will have good close in
phase noise (neasrly as good as the clock), though coherent spurs might
be a problem.

Richard

J M Noeding wrote:
> Hi
>
> need a low-noise xtal oscillator using 14.7 or 15.7MHz rubber xtals in
> series mode circuit to sweep xtal filters with good as possible noise
> distance. The available xtals are believed to pull +/-10kHz or more.
>
> Any suggestions.
>
> 73
> Jan-Martin, LA8AK
> http://home.online.no/~la8ak/c.htm
> ---
> J. M. Noeding, LA8AK, N-4623 Kristiansand
> http://home.online.no/~la8ak/c.htm

254. Re: Need a low noise VXO for narrow sweep

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-17 12:52:33 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <rg43d0pr0k6cb47r87etrrrkum0m4krd72@4ax.com>
Source record: 25536

On Wed, 16 Jun 2004 22:23:01 -0700, Tim Wescott
<tim@wescottnospamdesign.com> wrote:

>> need a low-noise xtal oscillator using 14.7 or 15.7MHz rubber xtals in
>> series mode circuit to sweep xtal filters with good as possible noise
>> distance. The available xtals are believed to pull +/-10kHz or more.
>>
>This is a fairly standard circuit -- why not just look in an ARRL manual
>or one of the many QRP transmitter designs for an oscillator? You can
>check for phase noise by mixing it with a good (fixed) crystal
>oscillator, or you can just trust it.

many of those amateur constructions are not very good, just put
together, and if they generate a sort of signal the constructors are
happy without worrying what they sound like. Some of the constructor
have of course well reputation, but ARRL handbook usually don't tell
who have designed it.

and in this case I want a definite low noise construction.

Remember when I built my first of many VHF/UHF beacons made after an
amateur concept I listened to the carrier with R-4C and converter, the
sound was awful, so I decided to built a new 12MHz xtal oscillator
using some practice described by Ulrich Rohde, DJ2LR. The improvement
on 144MHz was increadible, and I later learned that the sound was very
good compared with all sorts of rubbish somebody else used, even on
2320MHz

Jan-Martin, LA8AK

J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

255. Re: Motorola power supply

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-17 13:33:12 UTC
From: "Dr. Anton T. Squeegee" <SpammersArePondScum@dev.null>
Message-ID: <MPG.1b3b3d72cefa4a2e98973d@192.168.42.131>
Source record: 25537

In article <2jco1tFvg1d0U1@uni-berlin.de>, w6wqc@dslextreme.com says...

> Does anybody know what the output DC current is on a Motorola HPN3000A base
> station power supply? DC voltage measures 15 VDC.

I'm not sure what the current capability is, but I can tell you
that Motorola DC supplies typically run a bit high for voltage (though
15 seems higher than normal, even for Mother 'M.' How accurate is your
meter?)

> The pass transistors are two M9639 transistors in TO-3 case. I have not been
> able to find a data sheet on these guys. Anybody have any info on them?

Try cross-referencing from the number 48-869639. I just did so,
and found that the equivalent is a 2N3772.

Further digging on that number reveals that it is a 20A 60V NPN
power device (no surprise). Specs are at this link:

http://www.onsemi.com/site/products/summary/0,4450,2N3772,00.html

Assuming that the pass devices are in parallel, I would assume
that you have at least a 20A capable supply. You can, however, call
1800-422-4210, follow the prompts to get to Parts Identification, give
them the HPN number, and ask what the current rating is. They should be
able to tell you, and could also probably provide the part number for a
manual for the unit (which you can then order with a credit card).

Happy hunting.

--
Dr. Anton T. Squeegee, Director, Dutch Surrealist Plumbing Institute.
(Known to some as Bruce Lane, ARS KC7GR,
kyrrin (a/t) bluefeathertech[d=o=t]calm -- www.bluefeathertech.com
"If Salvador Dali had owned a computer, would it have been equipped
with surreal ports?"

256. Re: Need a low noise VXO for narrow sweep

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-17 16:03:20 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10d3g674qsr5j6f@corp.supernews.com>
Source record: 25538

J M Noeding wrote:

> On Wed, 16 Jun 2004 22:23:01 -0700, Tim Wescott
> <tim@wescottnospamdesign.com> wrote:
>
>
>>>need a low-noise xtal oscillator using 14.7 or 15.7MHz rubber xtals in
>>>series mode circuit to sweep xtal filters with good as possible noise
>>>distance. The available xtals are believed to pull +/-10kHz or more.
>>>
>>
>>This is a fairly standard circuit -- why not just look in an ARRL manual
>>or one of the many QRP transmitter designs for an oscillator? You can
>>check for phase noise by mixing it with a good (fixed) crystal
>>oscillator, or you can just trust it.
>
>
> many of those amateur constructions are not very good, just put
> together, and if they generate a sort of signal the constructors are
> happy without worrying what they sound like. Some of the constructor
> have of course well reputation, but ARRL handbook usually don't tell
> who have designed it.
>
> and in this case I want a definite low noise construction.
>
> Remember when I built my first of many VHF/UHF beacons made after an
> amateur concept I listened to the carrier with R-4C and converter, the
> sound was awful, so I decided to built a new 12MHz xtal oscillator
> using some practice described by Ulrich Rohde, DJ2LR. The improvement
> on 144MHz was increadible, and I later learned that the sound was very
> good compared with all sorts of rubbish somebody else used, even on
> 2320MHz
>
> Jan-Martin, LA8AK
> ---
> J. M. Noeding, LA8AK, N-4623 Kristiansand
> http://home.online.no/~la8ak/c.htm

Well, that's why I suggested verifying it's phase noise with a good
fixed crystal oscillator. I certainly wouldn't proceed without doing
this check -- the nice thing is that unless the oscillators lock
together too tightly you get an upper bound to your phase noise, so you
know when you're doing well enough.

"Solid State Design for the Radio Amateur" has some good (older)
circuits. It's been superseded by "Experimental Radio Design" which
should also have some good ones.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

257. Re: Need a low noise VXO for narrow sweep

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-17 16:08:58 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <MPG.1b3b61f82dc5b6939896bf@news-central.giganews.com>
Source record: 25539

In article <10d2ahlt0hmam30@corp.supernews.com>,
tim@wescottnospamdesign.com says...

> A DDS isn't going to have good enough phase noise. The OP is correct in
> using a pullable crystal oscillator.

Eh? He wants to sweep a filter. You don't particularly care about
phase noise when you do that.

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam
---

258. Capacitance Meter ????

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-17 17:04:45 UTC
From: Jim Simmons <jimsim-@adelphia.net>
Message-ID: <HsCdnTHQ5sOwUkzdRVn-uQ@adelphia.com>
Source record: 25540

Looking for any kind of information about a kit constructed printed circuit board with the following info on it DAGE CM-334. very well made design. Circuit board mounts everything except power supply and is mounted using the select switch and the zero adjust. Kit is very well made excellent components. Has a older 3 digit readout in the upper left section of the board, the zero adjust is in the upper right, and just below it is the selection switch. Selection switch position are; OFF, mF, and uF.

Thanks!

Jim

259. Re: Need a low noise VXO for narrow sweep

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-17 18:03:44 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10d3n7vdbd1uo84@corp.supernews.com>
Source record: 25541

John Miles wrote:
> In article <10d2ahlt0hmam30@corp.supernews.com>,
> tim@wescottnospamdesign.com says...
>
>
>>A DDS isn't going to have good enough phase noise. The OP is correct in
>>using a pullable crystal oscillator.
>
>
> Eh? He wants to sweep a filter. You don't particularly care about
> phase noise when you do that.
>
> -- jm
>
> --
> http://www.qsl.net/ke5fx
> Note: My E-mail address has been altered to avoid spam
> --

That depends on your filter. If you're trying to design a high pole count filter with really steep skirts and you want to verify it's final rejection then yes, you need a low phase noise oscillator. This is probably why he has "low noise" in his title.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

260. Re: Need a low noise VXO for narrow sweep

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-17 19:33:45 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <ibs3d0pcr46d11st02nfs2622d8bmvendp@4ax.com>
Source record: 25542

On Thu, 17 Jun 2004 11:03:44 -0700, Tim Wescott
<tim@wescottnospamdesign.com> wrote:

>> --
>> http://www.qsl.net/ke5fx
>> Note: My E-mail address has been altered to avoid spam
>> --
>
>That depends on your filter. If you're trying to design a high pole
>count filter with really steep skirts and you want to verify it's final
>rejection then yes, you need a low phase noise oscillator. This is
>probably why he has "low noise" in his title.

can't really see I've got any replies in the wanted direction; If I
wish to measure a receivers ultimate performance I am not interested
in seing something like 60dB selectivity when I am expecting 90dB or
more. Had a discussion with LA8OJ, and he suggested that 6MHz ceramic
resonator might be easier to use than a 15.7MHz xtal, 100kHz tuning
range could be achieved instead of 20kHz. But I suppose it was a trick
to limit the amplitude to improve phase noise of an xtal oscillator

73
Jan-Martin, LA8AK
http://home.online.no/~la8ak/c.htm

J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

261. Re: Need a low noise VXO for narrow sweep

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-17 21:29:05 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <MPG.1b3baceb2383f3489896c0@news-central.giganews.com>
Source record: 25543

In article <10d3n7vdbd1uo84@corp.supernews.com>,
tim@wescottnospamdesign.com says...

> That depends on your filter. If you're trying to design a high pole
> count filter with really steep skirts and you want to verify it's final
> rejection then yes, you need a low phase noise oscillator. This is
> probably why he has "low noise" in his title.

Perhaps, but if you want to verify final rejection, you want much wider tuning range than you're going to get from a pulled crystal. A 100 Hz-wide filter might be -100 dB down at 5 kHz but -50 dB down at 50 kHz, and if you care about that, you need to be able to look farther away from the carrier.

His desire for a narrow-range source made me think he was more interested in shape-factor and ripple alignment than ultimate rejection.

Maybe he can use two different oscillators to get the best of both worlds. A high-quality LC oscillator is actually pretty darned quiet at large offsets from the carrier. I think it was Tom Bruhns, or one of the other HP guys at least, who once pointed out that the old HP 608-series boatanchors were quieter at >100 kHz offsets than the flashy, high-dollar synthesizers that followed them.

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam
---

262. Re: Need a low noise VXO for narrow sweep

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-17 21:49:24 UTC
From: averyfineman@aol.com
Message-ID: <20040617174924.17756.00000527@mb-m03.aol.com>
Source record: 25544

In article <10d3n7vdbd1uo84@corp.supernews.com>, Tim Wescott
<tim@wescottnospamdesign.com> writes:

>John Miles wrote:
>> In article <10d2ahlt0hmam30@corp.supernews.com>,
>> tim@wescottnospamdesign.com says...
>>
>>
>>>A DDS isn't going to have good enough phase noise. The OP is correct in
>>>using a pullable crystal oscillator.
>>
>>
>> Eh? He wants to sweep a filter. You don't particularly care about
>> phase noise when you do that.
>>
>> -- jm
>>
>> --
>> http://www.qsl.net/ke5fx
>> Note: My E-mail address has been altered to avoid spam
>> --
>
>That depends on your filter. If you're trying to design a high pole
>count filter with really steep skirts and you want to verify it's final
>rejection then yes, you need a low phase noise oscillator. This is
>probably why he has "low noise" in his title.

The "need" for low-noise RF sources was prompted by the
electronics industry going hot and heavy on cellular telephony
which uses partly phase demodulation and clock recovery
circuits in digital electronics. Because of those particular
markets, "low noise" has become a Big Buzzword.

Whether you have one pole or twelve or whatever, you will
NOT need a specific "low noise oscillator!" The very ordinary
sweep oscillators of ten, twenty, or thirty years ago are quite
fine.

LenAnderson@ieee.org
retired (from regular hours) electronic engineer person

263. New Programs for Homebrewers

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-17 23:42:59 UTC
From: K1jhj <k1jhj@oco.net>
Message-ID: <10d4av4sdtjrn2f@corp.supernews.com>
Source record: 25545

Check
http://www.qsl.net/k1jhj/
for CoilCalc and CoreCalc, for air-core coils and toroid coils on T-type cores.

Much better and more useful than the cardboard slide rules.

73
JL/k1jhj

264. Re: Need a low noise VXO for narrow sweep

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-17 23:54:35 UTC
From: John Moriarity <k6qq@hdo.net>
Message-ID: <10d4bpt3g8btb4@corp.supernews.com>
Source record: 25546

> The "need" for low-noise RF sources was prompted by the
> electronics industry going hot and heavy on cellular telephony
> which uses partly phase demodulation and clock recovery
> circuits in digital electronics. Because of those particular
> markets, "low noise" has become a Big Buzzword.
>
> Whether you have one pole or twelve or whatever, you will
> NOT need a specific "low noise oscillator!" The very ordinary
> sweep oscillators of ten, twenty, or thirty years ago are quite
> fine.

Len,

I'm sorry, but I disagree. Concern with phase noise
in *all* kinds of communications systems really
got hot in the 1970s. Adjacent channel rejection
is limited by phase noise performance. It is presently
the limiting factor in HF receiver performance.
Ham transmitter phase noise can easily be heard
during CW DX contests as a keyed increase in noise
floor.

Measurement of a crystal filter with steep sides
could be compromised by PM to AM conversion
on the slopes.

And in response to earlier posts, DDS synths *can*
give very good phase noise performance, but their
usefulness is usually limited by quantization spurs
unless a cleanup PLL is added.

73, John - K6QQ
retired RF circuit design engineer

265. Antenna Preamp

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-18 03:17:42 UTC
From: Greg_False <Greg@false.co.xx>
Message-ID: <catmqvigl1@ctb-nnrp2.saix.net>
Source record: 25447

Hi,

I want to fit a receiving preamp to my 29MH mobile radio which runs a 50watt linear amplifier. My plan is to fit the preamp at the base of the 102" whip and to switch it in and out of the co-ax circuit (when transmitting) by means of relays activated by the mic press to talk button. Can I use any 12v relays, well shielded by copper boxes around them and what will happen to my 50ohms impedance?

As you can see I need all the guidance I can get:<)

Regards
Greg

266. Re: Need a low noise VXO for narrow sweep

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-18 03:39:01 UTC
From: averyfineman@aol.com
Message-ID: <20040617233901.09295.00000466@mb-m11.aol.com>
Source record: 25448

In article <10d4bpt3g8btb4@corp.supernews.com>, "John Moriarity" <k6qq@hdo.net>
writes:

>> The "need" for low-noise RF sources was prompted by the
>> electronics industry going hot and heavy on cellular telephony
>> which uses partly phase demodulation and clock recovery
>> circuits in digital electronics. Because of those particular
>> markets, "low noise" has become a Big Buzzword.
>>
>> Whether you have one pole or twelve or whatever, you will
>> NOT need a specific "low noise oscillator!" The very ordinary
>> sweep oscillators of ten, twenty, or thirty years ago are quite
>> fine.
>
>Len,
>
>I'm sorry, but I disagree. Concern with phase noise
>in *all* kinds of communications systems really
>got hot in the 1970s. Adjacent channel rejection
>is limited by phase noise performance. It is presently
>the limiting factor in HF receiver performance.

The limiting factor was, and continues to be, the
receiver front-end noise (usually in the first RF stage
or 1st Mixer, often described by NF or Noise Factor),
the ultimate selectivity (usually done by a quartz
crystal filter). Some things exacerbate the front-end
noise such as cascaded low-gain stages, the second
stage contributing some slight amount of extra noise.

>Ham transmitter phase noise can easily be heard
>during CW DX contests as a keyed increase in noise
>floor.

Whether that is done in contests or not, the "phase noise"
heard is MUCH more likely to be generated by the Xmtr
RF section. That noise is more than likely to be just AM
noise from that transmitter or the AM-type noise from the
local receiver front-end.

I'm at a loss to see where an AM-type demodulator is going
to see a small amount of phase noise or even frequency
noise...a diode or "product detector" (multiplier of signal input
times local IF oscillator or "beat" oscillator) is going to pick up
the amplitude-modulated noise of the distant Tx or the local
Rx front-end. That demod isn't going to be able to "hear" much

in the way of phase or frequency noise.

>Measurement of a crystal filter with steep sides
>could be compromised by PM to AM conversion
>on the slopes.

Perhaps...if the PM or FM was quite large. The actual PM or FM from even moderately-stable L-C oscillators is still quite small even with the large shape-factor values of very good quartz crystal bandpass filters.

I did a bunch of measurements of quartz-substrate SAW filters back in 1974 at RCA EASD which had Very steep skirts, steeper than 9-pole quartz crystal lattice filters. The only reason for concern was the _amplitude_ noise out of the RF generator, solved by getting an HP 608F. [60 to 70 MHz center frequency of the SAWs...608F has a nice amplitude stabilizer] That was better than trying for some averaging of multiple sweeps via a minicomputer data logger-averager which would have done the same thing with a controlled stepping RF synthesizer.

Anyone who cares can find out what the PM or FM "noise" is by simply modifying an FM receiver to tune to an oscillator's output and calibrating the FM receiver in terms of deviation done by a signal generator and frequency counter combination. Since PM and FM are - in theory and practice - nearly identical in terms of sideband content versus deviation. That same setup can also determine what the modified FM receiver's own LO PM-FM is as well as the signal generator's stuff. In actual practice, that PM-FM is so low that it doesn't matter one whit insofar as a basically-AM demodulated HF signal is as far as "phase noise."

Oscillator phase noise IS important with various levels of QAM where BOTH AM and PM are going on. The BER there is a very good indicator of whether or not phase or amplitude "noise" is a culprit and the Eye diagram can show which one is worst. There's lots more already been done on various QAM systems but the subject thread wasn't about digital modulations.

The subject thread was about voltage-controlled crystal oscillators used for filter measurement. With good control to suppress garbage on the (VCO or VCXO in more common terms) control line and some ordinary good (and old) practices in making stable oscillators, plus a wideband limiter stage to damp out the AM as the oscillator sweeps, ain't going to be much of a problem except calibrating the setup.

There are all sorts of frequency-variable RF sources that could be made up for this kind of measurement, nicely described in literature all over the industry, but "doing the numbers" on the theoretical "phase noise" of a particular source is what counts.

The way I see it, after doing a bunch of that kind of thing (besides in the 1974 time frame mentioned) is that the now-touted "phase noise" figures just don't matter for this application.

Phase noise can be a factor in obtaining very precise stats on a local frequency standard. "Allen Variance" and all that stuff (which is described in detail on the NTIS website in one section) isn't going to be needed for rather simple PPM tolerance measurements. This is not PPB tolerances.

Lots of late-WW2 era FM-PM systems were used by the military, notably the TRC-1, -3, -4 VHF radio relay sets using PM through a reactance modulator from an ~500 KHz (?) crystal and then doing something like 96 times (? forget the details, long chain of doublers and triplers) frequency multiplication to reach 70 to 90 MHz output. After all that multiplying, the output modulation was so close to FM that ordinary FM demodulators had no trouble receiving it. Bandwidth went a bit beyond 12 KHz. Nobody talked about any "phase noise" then even though the CF-1 and CF-2 carrier bays were also requiring phase and frequency stability of the radio part.

Oscillator "phase noise" specs got in there in more modern times as terms like Bit Error Rate (BER) and Eye Diagrams entered the scene along with the explosion of various cellular telephony and digital modulations. By that time, roughly the beginning of the 1970s, the ultimate in tuneable receiver sensitivity had already been achieved for HF bands and those receivers were on the market. Sensitivity hasn't really changed since that time for most signals involving AM-type modulations.

For a setup to test filters with very precise frequency control as well as stability of that frequency (in all three AM, FM, PM), a DDS is probably the most versatile RF source. But, some DDSs have unique problems of their own, involving the generation of spurious sidebands. That's an entirely different matter than "low phase noise" oscillators.

LenAnderson@ieee.org
retired (from regular hours) electronic engineer person.

267. Re: Motorola power supply

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-18 04:11:36 UTC
From: "G.Beat" <now9spamgb@no.comcast.spam.net>
Message-ID: <XXtAc.48245$2i5.11970@attbi_s52>
Source record: 25449

"Alfred Lorona" <w6wqc@dslextreme.com> wrote in message
news:2jco1tFvg1d0U1@uni-berlin.de...
> Does anybody know what the output DC current is on a Motorola HPN3000A
> base
> station power supply? DC voltage measures 15 VDC.
>
> The pass transistors are two M9639 transistors in TO-3 case. I have not
> been
> able to find a data sheet on these guys. Anybody have any info on them?
>
> Thanks. AL
>

Here are a number of useful spec sheets
http://www.kbt-dc-supplies.com/specs.php

Standard Linear supply, you should be able to find an adjustment
to drop the voltage to 13.8 VDC (under load)

2N3771 and 2N3055 are used extensively (pass transistors),
I have used the 2N3772 in supplies as replacement.

I do not remember what the Motorola used for a voltage regulator

w9gb

268. Re: New Programs for Homebrewers

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-18 04:29:39 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <TcuAc.2227$K53.372@edtnps89>
Source record: 25450

Behold, K1jhj signalled from keyed 4-1000A filament:

> Check
> http://www.qsl.net/k1jhj/
> for CoilCalc and CoreCalc, for air-core coils and toroid coils on T-type
> cores.

Right on! Thanks!

> Much better and more useful than the cardboard slide rules.

LOL! Want a few of mine?

--
Gregg
It's probably useful, even if it can't be SPICE'd
http://geek.scorpiorising.ca

269. Re: Antenna Preamp

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-18 04:36:49 UTC
From: averyfineman@aol.com
Message-ID: <20040618003649.23112.00000530@mb-m04.aol.com>
Source record: 25451

In article <catmqvigl1@ctb-nnrp2.saix.net>, "Greg_False" <Greg@false.co.xx>
writes:

>I want to fit a receiving preamp to my 29MH mobile radio which runs a 50watt
>linear amplifier. My plan is to fit the preamp at the base of the 102" whip
>and to switch it in and out of the co-ax circuit (when transmitting) by
>means of relays activated by the mic press to talk button.

Can we presume the frequency as about 29 MHz?

What you propose is quite proper to do but that raises the question
of WHY the need to do it?

It would seem that it would be easier all around to add some
amplification in the radio's receiver, behind its built-in switching
or T/R circuitry. The amount of loss experienced in the 10m
band coax isn't going to affect much unless the mobile is a
double-trailered semi with antenna at the aft trailer and radio is
in the tractor's cab. That coax loss will be there as much on
transmit as it will be on receive...which is to say, very little.

>Can I use any
>12v relays, well shielded by copper boxes around them and what will happen
>to my 50ohms impedance?

Very little will happen to the 50 Ohm impedance if you use most
any common small relays that can handle 50 W of anything (with
enough fudge factors to withstand about 200 W of anything).

Use Ohm's Law of Resistance to find the RMS voltage and current
at 50 Ohms for 50 Watts. Multiply those by 1.414 to find the peaks.
Since the mobile antenna isn't a perfect 50 Ohms, multiply the
peaks by 4 as a safety margin. Those are the breakdown voltages
and current-carrying requirements of the relay contacts. Try to keep
the relay contact wiring to/from antenna and radio's coax as short as
possible.

It would be wise to use a "break-before-make" contact set on the
relays. That avoids having a "one-time-use" preamp circuit where
the transmit RF can wipe out the preamp input. Contact action
can be checked at DC and with a scope to be sure.

First of all, the typical (8 foot) whip isn't going to be at a common
impedance over the whole 10 m band. It's characteristics will
change between different vehicle shapes/conductive surfaces even
if at the same frequency in comparing vehicles. No matter, those
things work okay as they are...work better with some kind of

antenna matching network. Antenna pattern will vary depending
on the vehicle and its conductive surface shape and topography.
That is normal, nothing to be overly concerned about.

Only nit-pickers will get into hissy-fits on antenna impedance and
antenna patterns and so forth. :-)

>As you can see I need all the guidance I can get:<)

We can all help there although this thread might get into a different
direction with nit-picking that is sure to evolve...:-)

Relays are okay to use even if they have (what seems to be) "large"
contact arrangements (of around an inch or two). Some will insist
that such things will mess up the 50 Ohm impedance (of the coax)
but then they probably haven't measured actual mobile antenna
installations in detail, such as the connection between coax and
antenna base. No matter, any relay that can handle 200 W of
anything has contact structures that are about 0.01 wavelength
at 10 m and won't affect the characteristic impedance very much.

What I see as a potential problem is the relay contact making
the transmitter output directly into the preamp input, even for a
few milliseconds. That's blow-out time for the preamp with 50 W
potential output...50 W in a 50 Ohm system equals 50 V RMS
or 71 V peak, current is 1 A RMS or 1.4 A peak. [P = E^2 / R
and = I^2 x R] Relay contacts can operate in about 5mS (reed)
to 10mS (rotary spider-armature) to 100 mS (larger leaf-type
contact stacks). It may be that the transmitter output may not
reach full output in a short time (most probable) but that is an
unknown here.

A protective box for the relay is very good for environmental
protection (think salty water in northern climes in winter) but it
won't help otherwise for RF in this case. A totally-enclosing
ABS plastic box should be fine.

Putting on the skeptic's hat, I'd have to ask why the need of a
preamp? If more receive gain is desired, the safer place to do
that could be in the transceiver itself. The T/R switching is already
there and presumably safe to use as it is.

LenAnderson@ieee.org
retired (from regular hours) electronic engineer person

270. Re: Antenna Preamp

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-18 05:34:57 UTC
From: Greg_False <Greg@false.co.xx>
Message-ID: <catusg$8ai$1@ctb-nnrp2.saix.net>
Source record: 25452

"Avery Fineman" <averyfineman@aol.com> wrote in message
news:20040618003649.23112.00000530@mb-m04.aol.com...
> In article <catmqvigl1@ctb-nnrp2.saix.net>, "Greg_False"
<Greg@false.co.xx>
> writes:
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> >and to switch it in and out of the co-ax circuit (when transmitting) by
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> possible.
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> can be checked at DC and with a scope to be sure.
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> antenna matching network. Antenna pattern will vary depending
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> antenna patterns and so forth. :-)
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> We can all help there although this thread might get into a different
> direction with nit-picking that is sure to evolve...:-)
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> won't help otherwise for RF in this case. A totally-enclosing
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> preamp? If more receive gain is desired, the safer place to do
> that could be in the transceiver itself. The T/R switching is already

> there and presumably safe to use as it is.
>
> LenAnderson@ieee.org
> retired (from regular hours) electronic engineer person
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Hi,

Thanks for the prompt and very helpful response.

I do not know enough about radio circuits to fiddle with installing additional preamps directly into the radio it' self.

I want to improve my reception as I normally travel with a group of other Land Rover owners who also have 29MH radios but they are not as fussy as I am about their installations and in many cases they can hear me but I cannot hear them.

I was thinking of using a double pole double throw relay.

I could fit a micro switch to the mic which activates before the press to talk switch activates the transmitter?

Thanks again
Greg

271. Re: Antenna Preamp

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-18 05:45:29 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <ZjvAc.3017$K53.68@edtnps89>
Source record: 25453

Behold, Greg_False signalled from keyed 4-1000A filament:

> "Avery Fineman" <averyfineman@aol.com> wrote in message
> news:20040618003649.23112.00000530@mb-m04.aol.com...
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> <Greg@false.co.xx>
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> me but I cannot hear them.
>
> I was thinking of using a double pole double throw relay.
>
> I could fit a micro switch to the mic which activates before the press
> to talk switch activates the transmitter?
>
> Thanks again
> Greg

Hey Greg ;-)

A DPDT relay is what you need, but to simplify things, drive the relay with an RF sensitive circuit. Usually a 1N914 into a 2N2222 will work, with some bias resistors and a delay capacitor of course.

That way, you let the circuit do the worrying for you. You key mike, the transmitter outputs RF, the relay switches immediately to "transmit", bypassing the preamp. You unkey, the relay drops out. If you use SSB, add a 0.5 second delay before the relay drops out.

Google is your friend here. Their are literally thousands of 10M preamp designs and almost as many RF operated TX/RX circuits.

I like vacuum tubes myself. I can post a Nuvistor-based design if you wish, to ABSE.

--
Gregg
It's probably useful, even if it can't be SPICE'd
http://geek.scorpiorising.ca

272. My story is opend for publish

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-18 08:43:43 UTC
From: Zoran Dimitrijevic <zorandi@EUnet.yu>
Message-ID: <cauaaivn8@news.eunet.yu>
Source record: 25454

THIS WHOLE STORY IS OPENED AND PERMISSIVE FOR PUBLISH FOR EVERY WHO WISH ON WHATEVER WAY.
NO LIMIT, NOT CONTRACT
Likewise, is PERMISSIVE every my email and www address.

My self
Zoran Dimitrijevic

zorandi2002@yahoo.com
nikaca2000@yahoo.com
or
ICQ
263-211-512
or , but is email occasionally Blocked I can't send and receive
zorandi@EUnet.yu
nacom@EUnet.yu
http://www30.brinkster.com/aferatelekom
http://www30.brinkster.com/aferatelekom/Obrenovici.htm
or download
http://www30.brinkster.com/aferatelekom/Obrenovici.zip

273. Re: Antenna Preamp

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-18 15:56:13 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10d644re1en8j6a@corp.supernews.com>
Source record: 25455

Greg_False wrote:

> "Avery Fineman" <averyfineman@aol.com> wrote in message
> news:20040618003649.23112.00000530@mb-m04.aol.com...
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>>In article <catmqvigl1@ctb-nnrp2.saix.net>, "Greg_False"
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> I could fit a micro switch to the mic which activates before the press to
> talk switch activates the transmitter?
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> Thanks again
> Greg
>
>
>

Even at 10 meters a modern radio should be fine, unless you have an
older rig or one that's got a reputation for being crappy I'd suspect a
fault with the radio or the antenna installation. I'd want to do a bit
of troubleshooting before I went off building modifications to something
that may just need repair.

At lower HF frequencies you can test your receiver noise level pretty quickly by attaching an antenna -- if the atmospheric noise is discernible then you have no trouble. I honestly don't know if this is still a valid test at 10M.

If you can, see if you can swap rigs with somebody temporarily and go driving. If the problem follows the rig then you have rig problems, if it follows the car you have car problems. If you have no problem with your car shut down but the noise level goes up with it running (particularly if you hear the ignition) then you have ignition noise problems. You may have an antenna that's more of a dummy load than a radiator (and receiver).

If you still think you must have a preamp you should have a better time installing the preamp inside the radio than outside -- there will be a spot in the radio that comes after the T/R switch but before the mixer. If the radio already has a preamp then you probably have one of the aforementioned faults, and should be looking at "fix" rather than "modify".

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

274. HP Network Analyser help

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-18 16:39:31 UTC
From: Philip de Cadenet <Philstheboss@thebbc.fslife.co.uk>
Message-ID: <Oc9u37BDrx0AFwrK@philstheboss.freeserve.co.uk>
Source record: 25456

I wonder if anyone here has access to service manuals for HP 8711/2/3/4 family
of network analysers. I could use a little bit of schematic and/or a couple
of part numbers.

Thanks
--
Philip de Cadenet G4ZOW
Transmitters 'R' Us
http://www.transmittersrus.com

275. Preserving the "Real" in _REAL_ Ham Radio?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-18 17:50:29 UTC
From: "Airy R. Bean" <ariy.r.bean@lycos.co.uk>
Message-ID: <2jgofkF11i2vlU1@uni-berlin.de>
Source record: 25457
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

That which differentiates the _REAL_ Radio Ham from
the CBer-Masquerading-As-A-Radio-Ham is his or her
habit of constructing, modifying and repairing radios. At one
time, the components that he or she was using were the same
components used by industry, but there is an increasing gap -
special purpose chips for which no info is available (or only
available under a commercial NDA) and tiny chips that are increasingly
difficult to deal with, especially BGA types.

The components which we use are those that are man-handleable,
but as these become less and less the one that industry use, their
rarity will increase.

Therefore I suggest that it is time to start hoarding old electronic
components and/or the circuit boards on which they come?

276. Re: Preserving the "Real" in _REAL_ Ham Radio?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-18 18:34:07 UTC
From: M1LCR <rees.a@btopenworld.com>
Message-ID: <cavciv$3l2$1@hercules.btinternet.com>
Source record: 25458
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

I think you have a point, here, and a possible business opportunity.

Because, as you quite rightly point out, these components are becoming rarer and rarer. So if someone was to go into business "hoarding" these things, then in 20 or 30 years time, they would have a nice business, supplying the amateurs, with components to keep the "elderly" and classic radio's going. It would be a nice little earner and a way to top up a pension !

So go ahead Mr Bean, fill your house with redundant crap, hoard it for 20 years and sell it on.

After all the majority of license holders in 20 or 30 years time will be M3's or former M3's . You know, CBers who aren't technical.......who can't solder ...who send their rigs back to be fixed !

So go ahead, hoard the crap, and see what happens.

If you are correct in your posts that M3's are not "REAL" Radio Amateurs, then you won't have a business.....if you are wrong you will.

Does this mean you are retracting your comments about M3's ?

(PS, do let me know in 20 or so years if you are right).

Adrian
M1LCR

All those amateurs that is, that are still capable of using a soldering iron ! Or who hold a ticket.
Because in 20 or 30 years time, there may not be many amateurs left, at all.
"Airy R. Bean" <ariy.r.bean@lycos.co.uk> wrote in message
news:2jgofkF11i2vlU1@uni-berlin.de...
> That which differentiates the _REAL_ Radio Ham from
> the CBer-Masquerading-As-A-Radio-Ham is his or her
> habit of constructing, modifying and repairing radios. At one
> time, the components that he or she was using were the same
> components used by industry, but there is an increasing gap -
> special purpose chips for which no info is available (or only
> available under a commercial NDA) and tiny chips that are increasingly
> difficult to deal with, especially BGA types.
>
> The components which we use are those that are man-handleable,
> but as these become less and less the one that industry use, their
> rarity will increase.
>
> Therefore I suggest that it is time to start hoarding old electronic

> components and/or the circuit boards on which they come?
>
>

277. Re: Antenna Preamp

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-18 18:35:22 UTC
From: Greg_False <Greg@false.co.xx>
Message-ID: <cavcjbhlp1@ctb-nnrp2.saix.net>
Source record: 25459

> >>
> >>>I want to fit a receiving preamp to my 29MH mobile radio which runs a
> >
> > 50watt
> >
> >>>linear amplifier. My plan is to fit the preamp at the base of the 102"
> >
> > whip
> >
> >>>and to switch it in and out of the co-ax circuit (when transmitting) by
> >>>means of relays activated by the mic press to talk button.
> >>
> >> Can we presume the frequency as about 29 MHz?
> >>
> >> What you propose is quite proper to do but that raises the question
> >> of WHY the need to do it?
> >>
> >> It would seem that it would be easier all around to add some
> >> amplification in the radio's receiver, behind its built-in switching
> >> or T/R circuitry. The amount of loss experienced in the 10m
> >> band coax isn't going to affect much unless the mobile is a
> >> double-trailered semi with antenna at the aft trailer and radio is
> >> in the tractor's cab. That coax loss will be there as much on
> >> transmit as it will be on receive...which is to say, very little.
> >>
> >>
> >>>Can I use any
> >>>12v relays, well shielded by copper boxes around them and what will
> >
> > happen
> >
> >>>to my 50ohms impedance?
> >>
> >> Very little will happen to the 50 Ohm impedance if you use most
> >> any common small relays that can handle 50 W of anything (with
> >> enough fudge factors to withstand about 200 W of anything).
> >>
> >> Use Ohm's Law of Resistance to find the RMS voltage and current
> >> at 50 Ohms for 50 Watts. Multiply those by 1.414 to find the peaks.
> >> Since the mobile antenna isn't a perfect 50 Ohms, multiply the
> >> peaks by 4 as a safety margin. Those are the breakdown voltages
> >> and current-carrying requirements of the relay contacts. Try to keep
> >> the relay contact wiring to/from antenna and radio's coax as short as
> >> possible.

> >>
> >> It would be wise to use a "break-before-make" contact set on the
> >> relays. That avoids having a "one-time-use" preamp circuit where
> >> the transmit RF can wipe out the preamp input. Contact action
> >> can be checked at DC and with a scope to be sure.
> >>
> >> First of all, the typical (8 foot) whip isn't going to be at a common
> >> impedance over the whole 10 m band. It's characteristics will
> >> change between different vehicle shapes/conductive surfaces even
> >> if at the same frequency in comparing vehicles. No matter, those
> >> things work okay as they are...work better with some kind of
> >> antenna matching network. Antenna pattern will vary depending
> >> on the vehicle and its conductive surface shape and topography.
> >> That is normal, nothing to be overly concerned about.
> >>
> >> Only nit-pickers will get into hissy-fits on antenna impedance and
> >> antenna patterns and so forth. :-)
> >>
> >>
> >>>As you can see I need all the guidance I can get:<)
> >>
> >> We can all help there although this thread might get into a different
> >> direction with nit-picking that is sure to evolve...:-)
> >>
> >> Relays are okay to use even if they have (what seems to be) "large"
> >> contact arrangements (of around an inch or two). Some will insist
> >> that such things will mess up the 50 Ohm impedance (of the coax)
> >> but then they probably haven't measured actual mobile antenna
> >> installations in detail, such as the connection between coax and
> >> antenna base. No matter, any relay that can handle 200 W of
> >> anything has contact structures that are about 0.01 wavelength
> >> at 10 m and won't affect the characteristic impedance very much.
> >>
> >> What I see as a potential problem is the relay contact making
> >> the transmitter output directly into the preamp input, even for a
> >> few milliseconds. That's blow-out time for the preamp with 50 W
> >> potential output...50 W in a 50 Ohm system equals 50 V RMS
> >> or 71 V peak, current is 1 A RMS or 1.4 A peak. [P = E^2 / R
> >> and = I^2 x R] Relay contacts can operate in about 5mS (reed)
> >> to 10mS (rotary spider-armature) to 100 mS (larger leaf-type
> >> contact stacks). It may be that the transmitter output may not
> >> reach full output in a short time (most probable) but that is an
> >> unknown here.
> >>
> >> A protective box for the relay is very good for environmental
> >> protection (think salty water in northern climes in winter) but it
> >> won't help otherwise for RF in this case. A totally-enclosing
> >> ABS plastic box should be fine.
> >
> >

> >> Putting on the skeptic's hat, I'd have to ask why the need of a
> >> preamp? If more receive gain is desired, the safer place to do
> >> that could be in the transceiver itself. The T/R switching is
already
> >> there and presumably safe to use as it is.
> >>
> >> LenAnderson@ieee.org
> >> retired (from regular hours) electronic engineer person
> >>
> >
> >
> > Hi,
> >
> > Thanks for the prompt and very helpful response.
> >
> > I do not know enough about radio circuits to fiddle with installing
> > additional preamps directly into the radio it' self.
> >
> > I want to improve my reception as I normally travel with a group of
other
> > Land Rover owners who also have 29MH radios but they are not as fussy as
I
> > am about their installations and in many cases they can hear me but I
cannot
> > hear them.
> >
> > I was thinking of using a double pole double throw relay.
> >
> > I could fit a micro switch to the mic which activates before the press
to
> > talk switch activates the transmitter?
> >
> > Thanks again
> > Greg
> >
> >
> >
>
> Even at 10 meters a modern radio should be fine, unless you have an
> older rig or one that's got a reputation for being crappy I'd suspect a
> fault with the radio or the antenna installation. I'd want to do a bit
> of troubleshooting before I went off building modifications to something
> that may just need repair.
>
> At lower HF frequencies you can test your receiver noise level pretty
> quickly by attaching an antenna -- if the atmospheric noise is
> discernible then you have no trouble. I honestly don't know if this is
> still a valid test at 10M.
>
> If you can, see if you can swap rigs with somebody temporarily and go

> driving. If the problem follows the rig then you have rig problems, if
> it follows the car you have car problems. If you have no problem with
> your car shut down but the noise level goes up with it running
> (particularly if you hear the ignition) then you have ignition noise
> problems. You may have an antenna that's more of a dummy load than a
> radiator (and receiver).
>
> If you still think you must have a preamp you should have a better time
> installing the preamp inside the radio than outside -- there will be a
> spot in the radio that comes after the T/R switch but before the mixer.
> If the radio already has a preamp then you probably have one of the
> aforementioned faults, and should be looking at "fix" rather than
"modify".
>
> --
>
> Tim Wescott
> Wescott Design Services
> http://www.wescottdesign.com

Hi Tim,

I don't think there's anything wrong with the radio, it is fairly new, I was hoping to snatch the last bit of a fading signal from the ether.

It is a very simple radio, the only controls are channel selection, squelch and volume.

I know, get a more professional bit of kit, but I'm always challenged to try and improve things, which eventually costs more than buying the correct thing in the first place.

I thing I've got the message, don't waste my time:<((

Thanks to all for the help.

Greg

278. Re: Antenna Preamp

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-18 19:51:46 UTC
From: averyfineman@aol.com
Message-ID: <20040618155146.07518.00000317@mb-m26.aol.com>
Source record: 25461

In article <catusg$8ai$1@ctb-nnrp2.saix.net>, "Greg_False" <Greg@false.co.xx>
writes:

>"Avery Fineman" <averyfineman@aol.com> wrote in message
>news:20040618003649.23112.00000530@mb-m04.aol.com...
>> In article <catmqvigl1@ctb-nnrp2.saix.net>, "Greg_False"
><Greg@false.co.xx>
>> writes:

>Thanks for the prompt and very helpful response.
>
>I do not know enough about radio circuits to fiddle with installing
>additional preamps directly into the radio it' self.

Okay. How old is the radio you want to use in the Land Rover?

For those made since around 1970 in HF use, the sensitivity
of the receiver section is already near optimum. Won't be
much improvement by adding an outboard preamp.

>I want to improve my reception as I normally travel with a group of other
>Land Rover owners who also have 29MH radios but they are not as fussy as I
>am about their installations and in many cases they can hear me but I cannot
>hear them.

Then I would look into the connections and possible corrosion
on your existing mobile antenna mounting. If you are traveling
with others no more than perhaps 10 miles or so distant, your
transmitter output may be enough, even though attenuated, to
break the others' squelch and they could hear you.

Chances are that the receiver of your transceiver is just off-tune
and some alignment is needed. I'd check that first, can be
done on-air, receive only with a friend's transmissions.

I'd begin with the mobile antenna mount and connection to the
coax, even the coax itself. Use an ohmmeter and check for
low but finite resistances there. Take apart the mobile antenna
mount and wire-brush (rotary on a drill is my recommendation)
the conductor surfaces. Some corroded contact surfaces may
look clean but an ohmmeter may show otherwise. If there are
lock-washers there, a dab of silicone grease (the thermal
conductivity grease used on power transistor mountings works)
will cut down on future oxidation. The teeth of lock-washers
assures a positive metal-to-metal contact even with grease.

>I was thinking of using a double pole double throw relay.

No problem there.

>I could fit a micro switch to the mic which activates before the press to
>talk switch activates the transmitter?

I like Tim Wescott's suggestion of using a lower-power relay coil
and detecting the RF from the transmitter first...saves having to
run a line from the transceiver for the PTT coil energization...but
that has a danger in the build-up time of transmitter power output
being faster than the detector-relay switchover time. If so, the
preamp will be fried before the relay has time to switch over.

Nearly all PTT transceivers of any kind have a line already there
inside from the PTT switch. Bring that one out and get an RF
detector to measure the transmitter RF output. Accuracy not
needed here. Use an oscilloscope with a slow time base, say
around 0.1 Sec, with a DC input capability, and compare the
timing of the PTT line and the detected RF output. The PTT
line MUST operate FIRST. With at least 0.1 Sec lag of RF
output versus the PTT line, the relay idea has a chance to work.

To be honest, I would suspect you might have some
misalignment in the receiver front end that's giving the
problem of low sensitivity. An outboard receiver preamp may
not help that condition much.

LenAnderson@ieee.org

279. Re: Preserving the "Real" in _REAL_ Ham Radio?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-18 20:02:21 UTC
From: Binary Era <me@privacy.net>
Message-ID: <pci6d0pmts0heuja3gh14ug9a7iih8c8hq@4ax.com>
Source record: 25460
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

Airy R. Bean wrote:

>That which differentiates the _REAL_ Radio Ham from
>the CBer-Masquerading-As-A-Radio-Ham is his or her
>habit of constructing, modifying and repairing radios.

[1] No-one needs a licence for these activities.

[2] If you want to preserve ham, try sodium nitrite.

[3] If you add some pork, you'll have some spam. LOL.

--
Binary Era

280. Re: Antenna Preamp

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-18 20:25:59 UTC
From: Ralph Mowery <rmowery28146@earthlink.net>
Message-ID: <rdIAc.9431$Wr.8201@newsread1.news.pas.earthlink.net>
Source record: 25462

"Greg_False" <Greg@false.co.xx> wrote in message
news:catmqvigl1@ctb-nnrp2.saix.net...
> Hi,
>
> I want to fit a receiving preamp to my 29MH mobile radio which runs a
50watt
> linear amplifier. My plan is to fit the preamp at the base of the 102"
whip
> and to switch it in and out of the co-ax circuit (when transmitting) by
> means of relays activated by the mic press to talk button. Can I use any
> 12v relays, well shielded by copper boxes around them and what will happen
> to my 50ohms impedance?
>
> As you can see I need all the guidance I can get:<)

Use one of these preamps. YOu will have to put it between the rig and amp
as they are only good for about 25 watts. They have the switching built in.

http://www.advancedreceiver.com/page7.html

281. adjust circulators down to 144 and 432MHz bands

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-18 21:05:11 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <g4m6d0d7iv4v4fcv0l4tuo0lrdb9g1pj2s@4ax.com>
Source record: 25463

Have put some info on http://www.noding.com/la8ak/12345/n22.htm
wonder if it is worth to take the work to finish this page or anybody
who has better info?

73
Jan-Martin, LA8AK

J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

282. FA: Tektronix 497P 100 Hz-21 GHz spectrum analyzer

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-18 22:47:30 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <MPG.1b3d0fedb4a7a4089896c1@news-central.giganews.com>
Source record: 25464
Cross-posted to:
misc.industry.electronics.marketplace,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,sci.electronics.equipment

The 497P is specified for coverage between 100 Hz and 7.1 GHz, but because this late-model unit shares its hardware platform with the top-of-the-line 494AP, I was able to calibrate it for the 494AP's full 21 GHz range. It is basically a 494AP without an OCXO standard and external-mixer jack.

This analyzer is in unusually-clean shape, and includes a cover and set of manuals. It would be a good economical alternative to a 494AP for any RF/microwave experimenters who can live without the waveguide mixer option.

http://cgi.ebay.com/ws/ebayISAPI.dll?ViewItem&item=3822660862

As an aside, this unit has the latest 49x ROMs I've run across (version 9.7 from 1992). The EPROMs were socketed, so I took the liberty of reading them to .BIN files. If anyone needs them to repair their analyzer, drop me an email and I'll send the images to you. These ROMs can support any 49x analyzer of similar vintage, including the 494AP, 492AP, 492BP, 492PGM, 495P, and the 2753-2756 line. (They probably would NOT work in older instruments such as the original 492/494/496 analyzers.)

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam
---

283. Re: New Programs for Homebrewers

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-18 22:49:20 UTC
From: Ken Scharf <wa2mzeNOTTHIS@bellsouth.net>
Message-ID: <XhKAc.58862$Kd5.23659@bignews4.bellsouth.net>
Source record: 25466

K1jhj wrote:
> Check
> http://www.qsl.net/k1jhj/
> for CoilCalc and CoreCalc, for air-core coils and toroid coils on T-type
> cores.
>
> Much better and more useful than the cardboard slide rules.
>
> 73
> JL/k1jhj
>
>
>
I just tried these out under Linux by using the Wine emulator.
Works ok, but the selection boxes could be a little wider to see
all the text (could be a wine font issue).

If you feel like posting the source code, I'd be tempted to
try a native Linux port.

73's
Ken
WA2MZE

284. Re: Antenna Preamp

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-18 23:15:01 UTC
From: j999w@aol.com
Message-ID: <20040618191501.19329.00000212@mb-m17.aol.com>
Source record: 25465

>Subject: Re: Antenna Preamp
>From: "Greg_False" Greg@false.co.xx
>Date: 6/18/04 1:35 PM Central Daylight Time
>Message-id: <cavcjbhlp1@ctb-nnrp2.saix.net>
>
>> >>
>> >>>I want to fit a receiving preamp to my 29MH mobile radio which runs a
>> >
>> > 50watt
>> >
>> >>>linear amplifier. My plan is to fit the preamp at the base of the 102"
>> >
>> > whip
>> >
>> >>>and to switch it in and out of the co-ax circuit (when transmitting) by
>> >>>means of relays activated by the mic press to talk button.
>> >>
>> >> Can we presume the frequency as about 29 MHz?
>> >>
>> >> What you propose is quite proper to do but that raises the question
>> >> of WHY the need to do it?
>> >>
>> >> It would seem that it would be easier all around to add some
>> >> amplification in the radio's receiver, behind its built-in switching
>> >> or T/R circuitry. The amount of loss experienced in the 10m
>> >> band coax isn't going to affect much unless the mobile is a
>> >> double-trailered semi with antenna at the aft trailer and radio is
>> >> in the tractor's cab. That coax loss will be there as much on
>> >> transmit as it will be on receive...which is to say, very little.
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>> >>>Can I use any
>> >>>12v relays, well shielded by copper boxes around them and what will
>> >
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>> >
>> >>>to my 50ohms impedance?
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>> >> Very little will happen to the 50 Ohm impedance if you use most
>> >> any common small relays that can handle 50 W of anything (with
>> >> enough fudge factors to withstand about 200 W of anything).
>> >>
>> >> Use Ohm's Law of Resistance to find the RMS voltage and current
>> >> at 50 Ohms for 50 Watts. Multiply those by 1.414 to find the peaks.

>> >> Since the mobile antenna isn't a perfect 50 Ohms, multiply the
>> >> peaks by 4 as a safety margin. Those are the breakdown voltages
>> >> and current-carrying requirements of the relay contacts. Try to keep
>> >> the relay contact wiring to/from antenna and radio's coax as short as
>> >> possible.
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>> >> It would be wise to use a "break-before-make" contact set on the
>> >> relays. That avoids having a "one-time-use" preamp circuit where
>> >> the transmit RF can wipe out the preamp input. Contact action
>> >> can be checked at DC and with a scope to be sure.
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>> >> First of all, the typical (8 foot) whip isn't going to be at a common
>> >> impedance over the whole 10 m band. It's characteristics will
>> >> change between different vehicle shapes/conductive surfaces even
>> >> if at the same frequency in comparing vehicles. No matter, those
>> >> things work okay as they are...work better with some kind of
>> >> antenna matching network. Antenna pattern will vary depending
>> >> on the vehicle and its conductive surface shape and topography.
>> >> That is normal, nothing to be overly concerned about.
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>> >> Only nit-pickers will get into hissy-fits on antenna impedance and
>> >> antenna patterns and so forth. :-)
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>> >>>As you can see I need all the guidance I can get:<)
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>> >> We can all help there although this thread might get into a different
>> >> direction with nit-picking that is sure to evolve...:-)
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>> >> Relays are okay to use even if they have (what seems to be) "large"
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>> >> that such things will mess up the 50 Ohm impedance (of the coax)
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>> >> What I see as a potential problem is the relay contact making
>> >> the transmitter output directly into the preamp input, even for a
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>> >> A protective box for the relay is very good for environmental

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>> > Greg
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>> Even at 10 meters a modern radio should be fine, unless you have an
>> older rig or one that's got a reputation for being crappy I'd suspect a
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>> of troubleshooting before I went off building modifications to something
>> that may just need repair.
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>> At lower HF frequencies you can test your receiver noise level pretty

>> quickly by attaching an antenna -- if the atmospheric noise is
>> discernible then you have no trouble. I honestly don't know if this is
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>> If you can, see if you can swap rigs with somebody temporarily and go
>> driving. If the problem follows the rig then you have rig problems, if
>> it follows the car you have car problems. If you have no problem with
>> your car shut down but the noise level goes up with it running
>> (particularly if you hear the ignition) then you have ignition noise
>> problems. You may have an antenna that's more of a dummy load than a
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>> If the radio already has a preamp then you probably have one of the
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>> Tim Wescott
>> Wescott Design Services
>> http://www.wescottdesign.com
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>and improve things, which eventually costs more than buying the correct
>thing in the first place.
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>I thing I've got the message, don't waste my time:<((
>
>Thanks to all for the help.
>
>Greg
>
>
>
>
>
>
>
>

>
>
>
>

Nothing to add ... I just wanted to make this quote longer.

:^]

jw
K9RZZ

285. Re: Antenna Preamp

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-18 23:20:48 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <e4u6d09dl5pmhlovrcf9vrv9eg0vvv2h67@4ax.com>
Source record: 25467

On 18 Jun 2004 23:15:01 GMT, j999w@aol.com (J999w) wrote:

>>Subject: Re: Antenna Preamp
>>From: "Greg_False" Greg@false.co.xx
>>Date: 6/18/04 1:35 PM Central Daylight Time
>>Message-id: <cavcjbhlp1@ctb-nnrp2.saix.net>
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>>> >> Very little will happen to the 50 Ohm impedance if you use most
>>> >> any common small relays that can handle 50 W of anything (with
>>> >> enough fudge factors to withstand about 200 W of anything).
>>> >>

>>> >> Use Ohm's Law of Resistance to find the RMS voltage and current
>>> >> at 50 Ohms for 50 Watts. Multiply those by 1.414 to find the peaks.
>>> >> Since the mobile antenna isn't a perfect 50 Ohms, multiply the
>>> >> peaks by 4 as a safety margin. Those are the breakdown voltages
>>> >> and current-carrying requirements of the relay contacts. Try to keep
>>> >> the relay contact wiring to/from antenna and radio's coax as short as
>>> >> possible.
>>> >>
>>> >> It would be wise to use a "break-before-make" contact set on the
>>> >> relays. That avoids having a "one-time-use" preamp circuit where
>>> >> the transmit RF can wipe out the preamp input. Contact action
>>> >> can be checked at DC and with a scope to be sure.
>>> >>
>>> >> First of all, the typical (8 foot) whip isn't going to be at a common
>>> >> impedance over the whole 10 m band. It's characteristics will
>>> >> change between different vehicle shapes/conductive surfaces even
>>> >> if at the same frequency in comparing vehicles. No matter, those
>>> >> things work okay as they are...work better with some kind of
>>> >> antenna matching network. Antenna pattern will vary depending
>>> >> on the vehicle and its conductive surface shape and topography.
>>> >> That is normal, nothing to be overly concerned about.
>>> >>
>>> >> Only nit-pickers will get into hissy-fits on antenna impedance and
>>> >> antenna patterns and so forth. :-)
>>> >>
>>> >>
>>> >>>As you can see I need all the guidance I can get:<)
>>> >>
>>> >> We can all help there although this thread might get into a different
>>> >> direction with nit-picking that is sure to evolve...:-)
>>> >>
>>> >> Relays are okay to use even if they have (what seems to be) "large"
>>> >> contact arrangements (of around an inch or two). Some will insist
>>> >> that such things will mess up the 50 Ohm impedance (of the coax)
>>> >> but then they probably haven't measured actual mobile antenna
>>> >> installations in detail, such as the connection between coax and
>>> >> antenna base. No matter, any relay that can handle 200 W of
>>> >> anything has contact structures that are about 0.01 wavelength
>>> >> at 10 m and won't affect the characteristic impedance very much.
>>> >>
>>> >> What I see as a potential problem is the relay contact making
>>> >> the transmitter output directly into the preamp input, even for a
>>> >> few milliseconds. That's blow-out time for the preamp with 50 W
>>> >> potential output...50 W in a 50 Ohm system equals 50 V RMS
>>> >> or 71 V peak, current is 1 A RMS or 1.4 A peak. [P = E^2 / R
>>> >> and = I^2 x R] Relay contacts can operate in about 5mS (reed)
>>> >> to 10mS (rotary spider-armature) to 100 mS (larger leaf-type
>>> >> contact stacks). It may be that the transmitter output may not
>>> >> reach full output in a short time (most probable) but that is an
>>> >> unknown here.

>>> >>
>>> >> A protective box for the relay is very good for environmental
>>> >> protection (think salty water in northern climes in winter) but it
>>> >> won't help otherwise for RF in this case. A totally-enclosing
>>> >> ABS plastic box should be fine.
>>> >
>>> >
>>> >> Putting on the skeptic's hat, I'd have to ask why the need of a
>>> >> preamp? If more receive gain is desired, the safer place to do
>>> >> that could be in the transceiver itself. The T/R switching is
>>already
>>> >> there and presumably safe to use as it is.
>>> >>
>>> >> LenAnderson@ieee.org
>>> >> retired (from regular hours) electronic engineer person
>>> >>
>>> >
>>> >
>>> > Hi,
>>> >
>>> > Thanks for the prompt and very helpful response.
>>> >
>>> > I do not know enough about radio circuits to fiddle with installing
>>> > additional preamps directly into the radio it' self.
>>> >
>>> > I want to improve my reception as I normally travel with a group of
>>other
>>> > Land Rover owners who also have 29MH radios but they are not as fussy as
>>I
>>> > am about their installations and in many cases they can hear me but I
>>cannot
>>> > hear them.
>>> >
>>> > I was thinking of using a double pole double throw relay.
>>> >
>>> > I could fit a micro switch to the mic which activates before the press
>>to
>>> > talk switch activates the transmitter?
>>> >
>>> > Thanks again
>>> > Greg
>>> >
>>> >
>>> >
>>>
>>> Even at 10 meters a modern radio should be fine, unless you have an
>>> older rig or one that's got a reputation for being crappy I'd suspect a
>>> fault with the radio or the antenna installation. I'd want to do a bit
>>> of troubleshooting before I went off building modifications to something
>>> that may just need repair.

>>>
>>> At lower HF frequencies you can test your receiver noise level pretty
>>> quickly by attaching an antenna -- if the atmospheric noise is
>>> discernible then you have no trouble. I honestly don't know if this is
>>> still a valid test at 10M.
>>>
>>> If you can, see if you can swap rigs with somebody temporarily and go
>>> driving. If the problem follows the rig then you have rig problems, if
>>> it follows the car you have car problems. If you have no problem with
>>> your car shut down but the noise level goes up with it running
>>> (particularly if you hear the ignition) then you have ignition noise
>>> problems. You may have an antenna that's more of a dummy load than a
>>> radiator (and receiver).
>>>
>>> If you still think you must have a preamp you should have a better time
>>> installing the preamp inside the radio than outside -- there will be a
>>> spot in the radio that comes after the T/R switch but before the mixer.
>>> If the radio already has a preamp then you probably have one of the
>>> aforementioned faults, and should be looking at "fix" rather than
>>"modify".
>>>
>>> --
>>>
>>> Tim Wescott
>>> Wescott Design Services
>>> http://www.wescottdesign.com
>>
>>Hi Tim,
>>
>>I don't think there's anything wrong with the radio, it is fairly new, I was
>>hoping to snatch the last bit of a fading signal from the ether.
>>
>>It is a very simple radio, the only controls are channel selection, squelch
>>and volume.
>>
>>I know, get a more professional bit of kit, but I'm always challenged to try
>>and improve things, which eventually costs more than buying the correct
>>thing in the first place.
>>
>>I thing I've got the message, don't waste my time:<((
>>
>>Thanks to all for the help.
>>
>>Greg
>>
>>
>>
>>
>>
>>

>>
>>
>>
>>
>>
>>
>
>Nothing to add ... I just wanted to make this quote longer.
>
>:^]
>
>jw
>K9RZZ

it is a lot to add for those who has some technical experience, but it
seems not to be important in this discussion

J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

286. Re: Antenna Preamp

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-19 00:50:26 UTC
From: xpyttl <xpyttl_NOSPAM@earthling.net>
Message-ID: <10d73ep4lpt772e@corp.supernews.com>
Source record: 25468

"Greg_False" <Greg@false.co.xx> wrote in message
news:cavcjbhlp1@ctb-nnrp2.saix.net...

> I don't think there's anything wrong with the radio, it is fairly new, I
was
> hoping to snatch the last bit of a fading signal from the ether.
>
> It is a very simple radio, the only controls are channel selection,
squelch
> and volume.
>
> I know, get a more professional bit of kit, but I'm always challenged to
try
> and improve things, which eventually costs more than buying the correct
> thing in the first place.
>
> I thing I've got the message, don't waste my time:<((

Greg

Amidst all the quotes and suggestions, I didn't see an explanation of why people are saying what they are saying. Here's an attempt at an explanation.

There is noise in the air, and more noise at lower frequencies. Meanwhile, especially with transistors, it is easier to get gain at lower frequencies than at higher. Once you can hear the noise, no additional gain is going to help. The signal that was below the noise will still be below the noise, only the noise and the signal will be louder.

At 40 meters, there is so much noise that it borders on impossible to make a receiver that doesn't have more than enough gain. At 2 meters and above, the noise is very low, and gain is hard to get. So hard, in fact, that noise in the transistors becomes an issue. It isn't an issue at lower frequencies. At VHF and above, if you want to increase the gain you need to do it at the first stage, otherwise you will be amplifying the noise in the earlier stages. Furthermore, at VHF and above, coax losses tend to be high, so it makes sense to amplify the signal before it has been attenuated by the coax, and possibly fallen into the internal noise of the amplifier. At HF, coax loss isn't much of an issue (except for antennas operated at very high SWR), so if you would need a preamp, putting it at the antenna end of the coax isn't the big advantage that it is at VHF/UHF.

Now, the reason for a little waffling is that 10 meters is kind of in no-man's land. Band noise is quite low, and it does take some work to get the gain you need. It tends not to be expensive to get that gain, so even

cheap radios will sometimes have enough gain, but not always. Back thirty years ago, it was hard to get enough gain on 10, so many older radios could use a little help. But today, two bucks will buy a chip with ten times the gain you can use on ten meters.

The reason for the suggestion on unplugging the antenna should now be obvious. If you can hear the difference in background noise with the antenna plugged in versus not, then you have enough gain in your receiver that a preamp will do no good. This is a worthwhile experiment, given that you have indicated it is a low end rig. I'm sure you hear "band noise", but if it's a sufficiently low end rig that noise could be coming from inside the receiver. Not likely, but still possible. The antenna experiment will put that question to rest.

The reason for the idea of going into the radio to locate the preamp was simply one of convenience - the relay you need is already there. Unlike at VHF, there really isn't a big advantage to putting the preamp at the end of the coax, so why not mount it near the radio where you already have power and don't have to waterproof it, and taking it a step further, why not take advantage of the relay that's already there.

Oh yes, and if you do build a preamp, don't sweat the SWR bump at the relay. As long as you keep all the connections reasonably short and straight it won't be an issue.

Hope this helps a bit

..

287. FM BCB Rcvr. design...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-19 03:47:40 UTC
From: Michael Dunn <president@whitehouse.gov>
Message-ID: <180620042347405266%president@whitehouse.gov>
Source record: 25469

Hello fellow radionuts (radionauts?). For some reason, I've decided
to design and build an FM tuner. Just to see if I can make a good one
I guess. A few questions have presented themselves:

-PLL or quadrature (IC) decoding?

-Stereo decoding: single IC or "discrete"?

-Throw in SCA! Why not? PLL?

-Anyone in S Ontario (KW) area?

-I'm still having a hard time figuring out AFC. I can see how I might
do it with a PLL - the DC error voltage being used to pull the LO to
the correct frequency. How was it done in the old days? ;-) If I
could design not only AFC, but also automatic tuning of an RF
preselector and perhaps even an antenna tuner, that would be tres cool.

All thoughts greatly appreciated.

Michael Dunn
VA3SSP
mdunn @at@ cantares.on.ca
Tech museums: http://www.cantares.on.ca/museums.htm
Design portfolio: http://www.cantares.on.ca/portfolio/

288. Re: FM BCB Rcvr. design...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-19 04:00:44 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10d7ej7k362fb31@corp.supernews.com>
Source record: 25470

Michael Dunn wrote:

> Hello fellow radionuts (radionauts?). For some reason, I've decided
> to design and build an FM tuner. Just to see if I can make a good one
> I guess. A few questions have presented themselves:
>
> -PLL or quadrature (IC) decoding?
>
>
> -Stereo decoding: single IC or "discrete"?
>
>
> -Throw in SCA! Why not? PLL?
>
>
> -Anyone in S Ontario (KW) area?
>
>
> -I'm still having a hard time figuring out AFC. I can see how I might
> do it with a PLL - the DC error voltage being used to pull the LO to
> the correct frequency. How was it done in the old days? ;-) If I
> could design not only AFC, but also automatic tuning of an RF
> preselector and perhaps even an antenna tuner, that would be tres cool.
>
>
>
> All thoughts greatly appreciated.
>
> Michael Dunn
> VA3SSP
> mdunn @at@ cantares.on.ca
> Tech museums: http://www.cantares.on.ca/museums.htm
> Design portfolio: http://www.cantares.on.ca/portfolio/

You can also use the signal from a quadrature decoder, whether IC's or
tube -- and there's a clever game you can play to make a gyrator out of
a pin-toad, which is how you pull the LO around if you're doing it with
tubes, etc.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

289. Re: FM BCB Rcvr. design...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-19 05:08:29 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <MPG.1b3d6a279006b0739896c2@news-central.giganews.com>
Source record: 25471

In article <18062004234740526 6%president@whitehouse.gov>,
president@whitehouse.gov says...
> Hello fellow radionuts (radionauts?). For some reason, I've decided
> to design and build an FM tuner. Just to see if I can make a good one
> I guess. A few questions have presented themselves:
>
> -PLL or quadrature (IC) decoding?

I can't speak to your own needs and interests, but for my part, coming off a big all-mode receiver project, I would say that my next one will definitely be... DSP-based.

I used the Philips SA604AD in my receiver for both WBFM (broadcast) and NBFM decoding, the former at 10.7 MHz, the latter at 455 kHz. It is quadrature-coil based, easy to use and not too hard to find. All of the coils and filters needed for all FM modes are stock parts at DigiKey. But the SA604AD doesn't decode stereo directly, so that may be an issue for you.

> -Stereo decoding: single IC or "discrete"?

Again, the next time I go through all this rigamarole, the final IF output will go straight into an ADC.

>
> -Throw in SCA! Why not? PLL?

In a non-DSP solution, the choice of PLL-versus-quadrature techniques is usually driven by the need for stereo decoding. You're more likely to want a PLL to regenerate the 19 kHz pilot tone for stereo decoding. This is not necessarily the same stage (chip) that does the FM demodulation. Stereo MPX decoding is strictly a baseband process, regardless of implementation.

I didn't care about stereo support in my application, so a quadrature solution was fine. I don't know much about the mechanics of stereo pilot carrier recovery and channel separation, never having implemented it or researched it in earnest. Google returned http://transmitters.tripod.com/stereo.htm, which at first glance looks like a good summary of the process.

> -I'm still having a hard time figuring out AFC. I can see how I might
> do it with a PLL - the DC error voltage being used to pull the LO to
> the correct frequency. How was it done in the old days? ;-)

Almost the same way. You could think of AFC as a crude FLL (frequency locked-loop). The output of the ratio detectors in the old-school FM

sets had a DC bias that corresponded to tuning error. When the radio was exactly on-frequency, the average carrier frequency deviation was zero, and the discriminator's DC output was centered. Drift would cause the development of a non-zero DC bias in one direction or the other, which was fed back to the 1st LO to steer it back on frequency. (Prior to the widespread use of varicap diodes, this was a rather kludgy process.)

There was no phase-locking effect in an AFC system, because ratio detectors can only be used to compare a single incoming frequency against a fixed tank circuit's center frequency. For a true PLL effect, you need a way to generate an error voltage or current on the basis of the phase difference between *two* signals.

> If I
> could design not only AFC, but also automatic tuning of an RF
> preselector and perhaps even an antenna tuner, that would be tres cool.

My suspicion is that you can dispense with the preselector and just use a strong (high-IP3) front end with a bandpass filter. 88-108 MHz is considered a narrow tuning range these days. :)

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam
---

290. Re: FM BCB Rcvr. design...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-19 06:34:37 UTC
From: Leon Heller <leon_heller@hotmail.com>
Message-ID: <40d3de7c$0$285$cc9e4d1f@news-text.dial.pipex.com>
Source record: 25472

"Michael Dunn" <president@whitehouse.gov> wrote in message
news:18062004234740526 6%president@whitehouse.gov...
> Hello fellow radionuts (radionauts?). For some reason, I've decided
> to design and build an FM tuner. Just to see if I can make a good one
> I guess. A few questions have presented themselves:
>
> -PLL or quadrature (IC) decoding?

DSP would be best.

> -I'm still having a hard time figuring out AFC.

You don't need it if you have a synthesised oscillator.

Leon

291. Re: New Programs for Homebrewers

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-19 07:23:28 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <QRRAc.1096$T_1.916@clgrps12>
Source record: 25473

Behold, Ken Scharf signalled from keyed 4-1000A filament:

> K1jhj wrote:
>> Check
>> http://www.qsl.net/k1jhj/
>> for CoilCalc and CoreCalc, for air-core coils and toroid coils on
>> T-type cores.
>>
>> Much better and more useful than the cardboard slide rules.
>>
>> 73
>> JL/k1jhj
>>
>>
>>
> I just tried these out under Linux by using the Wine emulator. Works ok,
> but the selection boxes could be a little wider to see all the text
> (could be a wine font issue).
>
> If you feel like posting the source code, I'd be tempted to try a native
> Linux port.
>
> 73's
> Ken
> WA2MZE

The Linux community, including myself, will be eternally greatful :-))))

--
Gregg
It's probably useful, even if it can't be SPICE'd
http://geek.scorpiorising.ca

292. Re: New Programs for Homebrewers

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-19 08:14:45 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <u0lHwQH1X$0AFA9p@ifwtech.co.uk>
Source record: 25474

K1jhj wrote:
>Check
>http://www.qsl.net/k1jhj/
>for CoilCalc and CoreCalc, for air-core coils and toroid coils on T-type
>cores.
>
Also see DL5SWB's 'Mini Ring Core Calculator' at:
http://www.qsl.net/dl5swb/minirk_e.htm

This is a core calculator linked to detailed data on a huge range of
toroids:
* The T-type iron dust range
* The Fair-Rite FT ferrite range
* The Siemens/Epcos/Siferrit range
* The Philips Ferroxcube range
* A very useful section on "unknown toroids" which works the
calculations backwards to find AL and mu-i

It also includes an air-core solenoid calculator.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

293. Re: New Programs for Homebrewers

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-19 08:37:28 UTC
From: Duncan Munro <postmaster@duncanamps.com>
Message-ID: <a3gfsbvr1m4u.1vy116uobdgmm.dlg@40tude.net>
Source record: 25475

On Sat, 19 Jun 2004 09:14:45 +0100, Ian White, G3SEK wrote:

> It also includes an air-core solenoid calculator.

There must be a few people following your tip right now Ian, it's
downloading very slooooowwwww... ;-)

--
Duncan Munro M0KGK
http://amateur.duncanamps.com/
FISTS #10815

294. Re: Tektronix 497P 100 Hz-21 GHz spectrum analyzer

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-19 09:16:59 UTC
From: SioL <nospam@die-spammers.com>
Message-ID: <WzTAc.5125$37.679776@news.siol.net>
Source record: 25476
Cross-posted to: misc.industry.electronics.marketplace,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

"John Miles" <jmiles@pop.removethistomailme.net> wrote in message
news:MPG.1b3d0fedb4a7a4089896c1@news-central.giganews.com...
> The 497P is specified for coverage between 100 Hz and 7.1 GHz, but
> because this late-model unit shares its hardware platform with the top-
> of-the-line 494AP, I was able to calibrate it for the 494AP's full 21
> GHz range. It is basically a 494AP without an OCXO standard and
> external-mixer jack.
>
> This analyzer is in unusually-clean shape, and includes a cover and set
> of manuals. It would be a good economical alternative to a 494AP for
> any RF/microwave experimenters who can live without the waveguide mixer
> option.
>
> http://cgi.ebay.com/ws/ebayISAPI.dll?ViewItem&item=3822660862
>
> As an aside, this unit has the latest 49x ROMs I've run across (version
> 9.7 from 1992). The EPROMs were socketed, so I took the liberty of
> reading them to .BIN files. If anyone needs them to repair their
> analyzer, drop me an email and I'll send the images to you. These ROMs
> can support any 49x analyzer of similar vintage, including the 494AP,
> 492AP, 492BP, 492PGM, 495P, and the 2753-2756 line. (They probably
> would NOT work in older instruments such as the original 492/494/496
> analyzers.)
>
> -- jm

You seem to know a lot about these things. I've got the 496P, I think its ver 1.5
The Uncal light is on. What does it mean?

Also, the manual for this would be really great.

SioL

295. WTB:HQ-110 CHASSIS/XFMR

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-19 12:39:32 UTC
From: Heytubeguy <heytubeguy@worldnet.att.net>
Message-ID: <8uWAc.96419$Gx4.46301@bgtnsc04-news.ops.worldnet.att.net>
Source record: 25477

```
Desperately need replacement power transformer for HQ-110, chassis or xfmr
is OK. Joe
```

296. Re: FM BCB Rcvr. design...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-19 16:02:56 UTC
From: bg998@FreeNet.Carleton.CA
Message-ID: <cb1o3gva1@freenet9.carleton.ca>
Source record: 25478

Michael Dunn (president@whitehouse.gov) writes:
>
> -I'm still having a hard time figuring out AFC. I can see how I might
> do it with a PLL - the DC error voltage being used to pull the LO to
> the correct frequency. How was it done in the old days? ;-) If I
> could design not only AFC, but also automatic tuning of an RF
> preselector and perhaps even an antenna tuner, that would be tres cool.
>

Michael,
Get a copy of the "Radio Designer's Handbook" by F. Langford-Smith. It's
all about tube technology but pages 1150-1160 in the 1953 edition
(revised '67) give a very good explanation of AFC and how it was done then.

Good luck and have fun.
... Martin VE3OAT

297. DSB-SC

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-19 17:34:39 UTC
From: pdrunen@aol.com
Message-ID: <20040619133439.05775.00000245@mb-m05.aol.com>
Source record: 25479

Hi Group,

How difficult is it to put a balance modulator inside an radio that generates AM to get Double Side Band suppressed carrier? Where can I get a circuit for a balance modulator?

Is it possible that someone listening to a DSB with a USB receiver will not be aware that there is another sideband on the LSB side?

Has anyone is this group ever experimented with DSB?

de KJ4UO

298. Re: FM BCB Rcvr. design...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-19 17:38:51 UTC
From: Michael Dunn <president@whitehouse.gov>
Message-ID: <1906200413385120 28%president@whitehouse.gov>
Source record: 25480

Thanks to all so far for the various comments. I guess i should have explained my design philosophy for this a bit.

I don't want to do anything fancy, like DSP or even synthesized tuning. But, I don't want to go for a minimalist six-transistor design either! ;-) And I certainly don't want to use a radio-on-a-chip! I do want something of good quality in the end.

I'm looking at the middle road. An LNA. A mixer/LO chip. What comes next is more up for grabs. Maybe I'll protoboard several approaches in parallel to gain the most experience and see which works best. A 1-chip solution (quadrature; perhaps use a better delay than a simple LC). A PLL chip + a stereo chip. And if I get ambitious, maybe a "discrete" stereo decoder design... Fun wow.

Michael
VA3SSP

299. Re: Antenna Preamp

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-19 17:45:19 UTC
From: Mike Coslo <mcoslo@adelphia.net>
Message-ID: <M4-dnVmHPq8z5kndRVn-hA@adelphia.com>
Source record: 25481

J999w wrote:
>>Subject: Re: Antenna Preamp
>>From: "Greg_False" Greg@false.co.xx
>>Date: 6/18/04 1:35 PM Central Daylight Time
>>Message-id: <cavcjbhlp1@ctb-nnrp2.saix.net>
>>
>>>>>>I want to fit a receiving preamp to my 29MH mobile radio which runs a
>>>>
>>>>50watt
>>>>
>>>>
>>>>>>linear amplifier. My plan is to fit the preamp at the base of the 102"
>>>>
>>>>whip
>>>>
>>>>
>>>>>>and to switch it in and out of the co-ax circuit (when transmitting) by
>>>>>>means of relays activated by the mic press to talk button.
>>>>>
>>>>> Can we presume the frequency as about 29 MHz?
>>>>>
>>>>> What you propose is quite proper to do but that raises the question
>>>>> of WHY the need to do it?
>>>>>
>>>>> It would seem that it would be easier all around to add some
>>>>> amplification in the radio's receiver, behind its built-in switching
>>>>> or T/R circuitry. The amount of loss experienced in the 10m
>>>>> band coax isn't going to affect much unless the mobile is a
>>>>> double-trailered semi with antenna at the aft trailer and radio is
>>>>> in the tractor's cab. That coax loss will be there as much on
>>>>> transmit as it will be on receive...which is to say, very little.
>>>>>
>>>>>
>>>>>
>>>>>>Can I use any
>>>>>>12v relays, well shielded by copper boxes around them and what will
>>>>
>>>>happen
>>>>
>>>>
>>>>>>to my 50ohms impedance?
>>>>>
>>>>> Very little will happen to the 50 Ohm impedance if you use most
>>>>> any common small relays that can handle 50 W of anything (with

>>>>> enough fudge factors to withstand about 200 W of anything).
>>>>>
>>>>> Use Ohm's Law of Resistance to find the RMS voltage and current
>>>>> at 50 Ohms for 50 Watts. Multiply those by 1.414 to find the peaks.
>>>>> Since the mobile antenna isn't a perfect 50 Ohms, multiply the
>>>>> peaks by 4 as a safety margin. Those are the breakdown voltages
>>>>> and current-carrying requirements of the relay contacts. Try to keep
>>>>> the relay contact wiring to/from antenna and radio's coax as short as
>>>>> possible.
>>>>>
>>>>> It would be wise to use a "break-before-make" contact set on the
>>>>> relays. That avoids having a "one-time-use" preamp circuit where
>>>>> the transmit RF can wipe out the preamp input. Contact action
>>>>> can be checked at DC and with a scope to be sure.
>>>>>
>>>>> First of all, the typical (8 foot) whip isn't going to be at a common
>>>>> impedance over the whole 10 m band. It's characteristics will
>>>>> change between different vehicle shapes/conductive surfaces even
>>>>> if at the same frequency in comparing vehicles. No matter, those
>>>>> things work okay as they are...work better with some kind of
>>>>> antenna matching network. Antenna pattern will vary depending
>>>>> on the vehicle and its conductive surface shape and topography.
>>>>> That is normal, nothing to be overly concerned about.
>>>>>
>>>>> Only nit-pickers will get into hissy-fits on antenna impedance and
>>>>> antenna patterns and so forth. :-)
>>>>>
>>>>>
>>>>>
>>>>>>As you can see I need all the guidance I can get:<)
>>>>>
>>>>> We can all help there although this thread might get into a different
>>>>> direction with nit-picking that is sure to evolve...:-)
>>>>>
>>>>> Relays are okay to use even if they have (what seems to be) "large"
>>>>> contact arrangements (of around an inch or two). Some will insist
>>>>> that such things will mess up the 50 Ohm impedance (of the coax)
>>>>> but then they probably haven't measured actual mobile antenna
>>>>> installations in detail, such as the connection between coax and
>>>>> antenna base. No matter, any relay that can handle 200 W of
>>>>> anything has contact structures that are about 0.01 wavelength
>>>>> at 10 m and won't affect the characteristic impedance very much.
>>>>>
>>>>> What I see as a potential problem is the relay contact making
>>>>> the transmitter output directly into the preamp input, even for a
>>>>> few milliseconds. That's blow-out time for the preamp with 50 W
>>>>> potential output...50 W in a 50 Ohm system equals 50 V RMS
>>>>> or 71 V peak, current is 1 A RMS or 1.4 A peak. [P = E^2 / R
>>>>> and = I^2 x R] Relay contacts can operate in about 5mS (reed)
>>>>> to 10mS (rotary spider-armature) to 100 mS (larger leaf-type

>>>>> contact stacks). It may be that the transmitter output may not
>>>>> reach full output in a short time (most probable) but that is an
>>>>> unknown here.
>>>>>
>>>>> A protective box for the relay is very good for environmental
>>>>> protection (think salty water in northern climes in winter) but it
>>>>> won't help otherwise for RF in this case. A totally-enclosing
>>>>> ABS plastic box should be fine.
>>>>
>>>>
>>>>> Putting on the skeptic's hat, I'd have to ask why the need of a
>>>>> preamp? If more receive gain is desired, the safer place to do
>>>>> that could be in the transceiver itself. The T/R switching is
>>
>>already
>>
>>>>> there and presumably safe to use as it is.
>>>>>
>>>>> LenAnderson@ieee.org
>>>>> retired (from regular hours) electronic engineer person
>>>>>
>>>>
>>>>
>>>>Hi,
>>>>
>>>>Thanks for the prompt and very helpful response.
>>>>
>>>>I do not know enough about radio circuits to fiddle with installing
>>>>additional preamps directly into the radio it' self.
>>>>
>>>>I want to improve my reception as I normally travel with a group of
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>>other
>>
>>>>Land Rover owners who also have 29MH radios but they are not as fussy as
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>>I
>>
>>>>am about their installations and in many cases they can hear me but I
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>>cannot
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>>>>hear them.
>>>>
>>>>I was thinking of using a double pole double throw relay.
>>>>
>>>>I could fit a micro switch to the mic which activates before the press
>>
>>to
>>

>>>>talk switch activates the transmitter?
>>>>
>>>>Thanks again
>>>>Greg
>>>>
>>>>
>>>>
>>>
>>>Even at 10 meters a modern radio should be fine, unless you have an
>>>older rig or one that's got a reputation for being crappy I'd suspect a
>>>fault with the radio or the antenna installation. I'd want to do a bit
>>>of troubleshooting before I went off building modifications to something
>>>that may just need repair.
>>>
>>>At lower HF frequencies you can test your receiver noise level pretty
>>>quickly by attaching an antenna -- if the atmospheric noise is
>>>discernible then you have no trouble. I honestly don't know if this is
>>>still a valid test at 10M.
>>>
>>>If you can, see if you can swap rigs with somebody temporarily and go
>>>driving. If the problem follows the rig then you have rig problems, if
>>>it follows the car you have car problems. If you have no problem with
>>>your car shut down but the noise level goes up with it running
>>>(particularly if you hear the ignition) then you have ignition noise
>>>problems. You may have an antenna that's more of a dummy load than a
>>>radiator (and receiver).
>>>
>>>If you still think you must have a preamp you should have a better time
>>>installing the preamp inside the radio than outside -- there will be a
>>>spot in the radio that comes after the T/R switch but before the mixer.
>>> If the radio already has a preamp then you probably have one of the
>>>aforementioned faults, and should be looking at "fix" rather than
>>
>>"modify".
>>
>>>--
>>>
>>>Tim Wescott
>>>Wescott Design Services
>>>http://www.wescottdesign.com
>>
>>Hi Tim,
>>
>>I don't think there's anything wrong with the radio, it is fairly new, I was
>>hoping to snatch the last bit of a fading signal from the ether.
>>
>>It is a very simple radio, the only controls are channel selection, squelch
>>and volume.
>>
>>I know, get a more professional bit of kit, but I'm always challenged to try

>>and improve things, which eventually costs more than buying the correct
>>thing in the first place.
>>
>>I thing I've got the message, don't waste my time:<((
>>
>>Thanks to all for the help.
>>
>>Greg
>>
>>
>>
>>
>>
>>
>>
>>
>>
>>
>>
>>
>
>
> Nothing to add ... I just wanted to make this quote longer.
>
> :^]
>
> jw
> K9RZZ

Well, you could have done that better by adding more than a one line comment! I mean really. Now go away, think about what you did, and come back and post at least 4 lines of sentence to add to the thread. Then you'll be doing it right! 8^)

- Mike KB3EIA -

300. Re: Tektronix 497P 100 Hz-21 GHz spectrum analyzer

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-19 17:59:30 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <MPG.1b3e1edec9bb27199896c3@news-central.giganews.com>
Source record: 25482
Cross-posted to: misc.industry.electronics.marketplace,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

In article <WzTAc.5125$37.679776@news.siol.net>, nospam@die-spammers.com
says...
> "John Miles" <jmiles@pop.removethistomailme.net> wrote in message
> You seem to know a lot about these things. I've got the 496P, I think its ver 1.5
> The Uncal light is on. What does it mean?

Usually it means you've selected a resolution bandwidth that's too
narrow for the span; e.g., the 100 Hz filter will be too narrow for use
in a 100 kHz/division span. (If you're a ham, that's like turning on
your rig's CW filter and then spinning its flywheel-weighted dial across
the band as fast as you can. You won't hear anything but a few muffled
clicks if you do that, because the filter doesn't have time to respond
to any signals.)

Turning the video filter off may help, too. It will 'smear' at fast
sweep rates just like the RBW filter.

The sweep time/division switch should be set to "Auto" for 99% of all
measurements with these analyzers. If you set it to a fast sweep time,
the Uncal light will come on. (Make sure this switch works properly; I
had a 492 once that sometimes failed to read the switch at power-up
time.)

>
> Also, the manual for this would be really great.

They are fairly common on eBay. Usually sold on CD as .PDF files (such
as http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3821468630), but
once in awhile some originals will show up. Tek has kindly released
their copyright interests in the older test-equipment manuals, so there
are a lot of people selling reprints. I don't know this seller and
can't vouch for the quality.

You can also try http://www.manualsplus.com,
http://www.manualmerchant.com, and http://consolidatedsurplus.com.

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam
---

301. Re: Tektronix 497P 100 Hz-21 GHz spectrum analyzer

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-19 18:23:41 UTC
From: SioL <nospam@die-spammers.com>
Message-ID: <ia0Bc.5152$37.684062@news.siol.net>
Source record: 25483
Cross-posted to: misc.industry.electronics.marketplace,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

"John Miles" <jmiles@pop.removethistomailme.net> wrote in message
news:MPG.1b3e1edec9bb27199896c3@news-central.giganews.com...
> In article <WzTAc.5125$37.679776@news.siol.net>, nospam@die-spammers.com
> says...
> > "John Miles" <jmiles@pop.removethistomailme.net> wrote in message
> > You seem to know a lot about these things. I've got the 496P, I think its ver 1.5
> > The Uncal light is on. What does it mean?
>
> Usually it means you've selected a resolution bandwidth that's too
> narrow for the span; e.g., the 100 Hz filter will be too narrow for use
> in a 100 kHz/division span. (If you're a ham, that's like turning on
> your rig's CW filter and then spinning its flywheel-weighted dial across
> the band as fast as you can. You won't hear anything but a few muffled
> clicks if you do that, because the filter doesn't have time to respond
> to any signals.)
>
> Turning the video filter off may help, too. It will 'smear' at fast
> sweep rates just like the RBW filter.
>
> The sweep time/division switch should be set to "Auto" for 99% of all
> measurements with these analyzers. If you set it to a fast sweep time,
> the Uncal light will come on. (Make sure this switch works properly; I
> had a 492 once that sometimes failed to read the switch at power-up
> time.)
>
> >
> > Also, the manual for this would be really great.
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> They are fairly common on eBay. Usually sold on CD as .PDF files (such
> as http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3821468630), but
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> their copyright interests in the older test-equipment manuals, so there
> are a lot of people selling reprints. I don't know this seller and
> can't vouch for the quality.
>
> You can also try http://www.manualsplus.com,
> http://www.manualmerchant.com, and http://consolidatedsurplus.com.
>
> -- jm

Thanks.

I'll look at those pdf files on ebay.

The uncal light is unfortunately always on, none of the settings affects it. The controls seem to work, but they don't affect uncal led. I guess I really need the manual. Probably something in there that could explain it.

SioL

302. Re: Tektronix 497P 100 Hz-21 GHz spectrum analyzer

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-19 19:16:47 UTC
From: Bill <Bill@birchnet.demon.co.uk>
Message-ID: <LXUcnvLfEJ1AFwCL@birchnet.demon.co.uk>
Source record: 25484
Cross-posted to: misc.industry.electronics.marketplace,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

In message <MPG.1b3e1edec9bb27199896c3@news-central.giganews.com>, John Miles <jmiles@pop.removethistomailme.net> writes
>and http://consolidatedsurplus.com.
Didn't work for me but is it www.usimperio.com/consolidated/search.htm
????

I've added the others to my favourites list though so thanks for pointing them out to us.

--
Bill

303. Re: Tektronix 497P 100 Hz-21 GHz spectrum analyzer

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-19 20:18:00 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <MPG.1b3e3f567f72cb939896c4@news-central.giganews.com>
Source record: 25485
Cross-posted to: misc.industry.electronics.marketplace,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

> Thanks.
>
> I'll look at those pdf files on ebay.
>
> The uncal light is unfortunately always on, none of the settings affects it.
> The controls seem to work, but they don't affect uncal led. I guess I really
> need the manual. Probably something in there that could explain it.

That would make me suspect the keyboard controller chip. In the 492, I ended up replacing it with a BASIC stamp (which I still have in the junk box somewhere; you're welcome to it if that's the problem).

Does your TIME/DIV knob do anything at all?

-- jm

---

http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

---

304. Re: Antenna Preamp

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-19 20:22:13 UTC
From: j999w@aol.com
Message-ID: <20040619162213.04282.00000160@mb-m26.aol.com>
Source record: 25486

```
>Subject: Re: Antenna Preamp
>From: Mike Coslo mcoslo@adelphia.net
>Date: 6/19/04 12:45 PM Central Daylight Time
>Message-id: <M4-dnVmHPq8z5kndRVn-hA@adelphia.com>
>
>
>
>J999w wrote:
>>>Subject: Re: Antenna Preamp
>>>From: "Greg_False" Greg@false.co.xx
>>>Date: 6/18/04 1:35 PM Central Daylight Time
>>>Message-id: <cavcjb$hlp$1@ctb-nnrp2.saix.net>
>>>
>>>>>>>I want to fit a receiving preamp to my 29MH mobile radio which runs a
>>>>>
>>>>>50watt
>>>>>
>>>>>
>>>>>>>>linear amplifier. My plan is to fit the preamp at the base of the 102"
>>>>>
>>>>>whip
>>>>>
>>>>>
>>>>>>>>and to switch it in and out of the co-ax circuit (when transmitting) by
>>>>>>>>means of relays activated by the mic press to talk button.
>>>>>>
>>>>>> Can we presume the frequency as about 29 MHz?
>>>>>>
>>>>>> What you propose is quite proper to do but that raises the question
>>>>>> of WHY the need to do it?
>>>>>>
>>>>>> It would seem that it would be easier all around to add some
>>>>>> amplification in the radio's receiver, behind its built-in switching
>>>>>> or T/R circuitry. The amount of loss experienced in the 10m
>>>>>> band coax isn't going to affect much unless the mobile is a
>>>>>> double-trailered semi with antenna at the aft trailer and radio is
>>>>>> in the tractor's cab. That coax loss will be there as much on
>>>>>> transmit as it will be on receive...which is to say, very little.
>>>>>>
>>>>>>
>>>>>>
>>>>>>>>>Can I use any
>>>>>>>>>12v relays, well shielded by copper boxes around them and what will
>>>>>
```

>>>>>happen
>>>>>
>>>>>
>>>>>>>to my 50ohms impedance?
>>>>>>
>>>>>> Very little will happen to the 50 Ohm impedance if you use most
>>>>>> any common small relays that can handle 50 W of anything (with
>>>>>> enough fudge factors to withstand about 200 W of anything).
>>>>>>
>>>>>> Use Ohm's Law of Resistance to find the RMS voltage and current
>>>>>> at 50 Ohms for 50 Watts. Multiply those by 1.414 to find the peaks.
>>>>>> Since the mobile antenna isn't a perfect 50 Ohms, multiply the
>>>>>> peaks by 4 as a safety margin. Those are the breakdown voltages
>>>>>> and current-carrying requirements of the relay contacts. Try to keep
>>>>>> the relay contact wiring to/from antenna and radio's coax as short as
>>>>>> possible.
>>>>>>
>>>>>> It would be wise to use a "break-before-make" contact set on the
>>>>>> relays. That avoids having a "one-time-use" preamp circuit where
>>>>>> the transmit RF can wipe out the preamp input. Contact action
>>>>>> can be checked at DC and with a scope to be sure.
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>>>>>> First of all, the typical (8 foot) whip isn't going to be at a common
>>>>>> impedance over the whole 10 m band. It's characteristics will
>>>>>> change between different vehicle shapes/conductive surfaces even
>>>>>> if at the same frequency in comparing vehicles. No matter, those
>>>>>> things work okay as they are...work better with some kind of
>>>>>> antenna matching network. Antenna pattern will vary depending
>>>>>> on the vehicle and its conductive surface shape and topography.
>>>>>> That is normal, nothing to be overly concerned about.
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>>>>>> Only nit-pickers will get into hissy-fits on antenna impedance and
>>>>>> antenna patterns and so forth. :-)
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>>>>>>
>>>>>>
>>>>>>>As you can see I need all the guidance I can get:<)
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>>>>>> We can all help there although this thread might get into a different
>>>>>> direction with nit-picking that is sure to evolve...:-)
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>>>>>> Relays are okay to use even if they have (what seems to be) "large"
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>>>>>> that such things will mess up the 50 Ohm impedance (of the coax)
>>>>>> but then they probably haven't measured actual mobile antenna
>>>>>> installations in detail, such as the connection between coax and
>>>>>> antenna base. No matter, any relay that can handle 200 W of
>>>>>> anything has contact structures that are about 0.01 wavelength
>>>>>> at 10 m and won't affect the characteristic impedance very much.
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>>>>>> What I see as a potential problem is the relay contact making
>>>>>> the transmitter output directly into the preamp input, even for a
>>>>>> few milliseconds. That's blow-out time for the preamp with 50 W
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>>>>>> to 10mS (rotary spider-armature) to 100 mS (larger leaf-type
>>>>>> contact stacks). It may be that the transmitter output may not
>>>>>> reach full output in a short time (most probable) but that is an
>>>>>> unknown here.
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>>>>>> A protective box for the relay is very good for environmental
>>>>>> protection (think salty water in northern climes in winter) but it
>>>>>> won't help otherwise for RF in this case. A totally-enclosing
>>>>>> ABS plastic box should be fine.
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>>>>>> Putting on the skeptic's hat, I'd have to ask why the need of a
>>>>>> preamp? If more receive gain is desired, the safer place to do
>>>>>> that could be in the transceiver itself. The T/R switching is
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>>>already
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>>>>>> there and presumably safe to use as it is.
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>>>>>> LenAnderson@ieee.org
>>>>>> retired (from regular hours) electronic engineer person
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>>>>>Hi,
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>>>>>Thanks for the prompt and very helpful response.
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>>>other
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>>>>>Land Rover owners who also have 29MH radios but they are not as fussy as
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>>>>>I could fit a micro switch to the mic which activates before the press
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>>>>>talk switch activates the transmitter?
>>>>>
>>>>>Thanks again
>>>>>Greg
>>>>>
>>>>>
>>>>>
>>>>
>>>>Even at 10 meters a modern radio should be fine, unless you have an
>>>>older rig or one that's got a reputation for being crappy I'd suspect a
>>>>fault with the radio or the antenna installation. I'd want to do a bit
>>>>of troubleshooting before I went off building modifications to something
>>>>that may just need repair.
>>>>
>>>>At lower HF frequencies you can test your receiver noise level pretty
>>>>quickly by attaching an antenna -- if the atmospheric noise is
>>>>discernible then you have no trouble. I honestly don't know if this is
>>>>still a valid test at 10M.
>>>>
>>>>If you can, see if you can swap rigs with somebody temporarily and go
>>>>driving. If the problem follows the rig then you have rig problems, if
>>>>it follows the car you have car problems. If you have no problem with
>>>>your car shut down but the noise level goes up with it running
>>>>(particularly if you hear the ignition) then you have ignition noise
>>>>problems. You may have an antenna that's more of a dummy load than a
>>>>radiator (and receiver).
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>>>>If you still think you must have a preamp you should have a better time
>>>>installing the preamp inside the radio than outside -- there will be a
>>>>spot in the radio that comes after the T/R switch but before the mixer.
>>>> If the radio already has a preamp then you probably have one of the
>>>>aforementioned faults, and should be looking at "fix" rather than
>>>
>>>"modify".
>>>
>>>>--
>>>>
>>>>Tim Wescott
>>>>Wescott Design Services
>>>>http://www.wescottdesign.com
>>>
>>>Hi Tim,
>>>

>>>I don't think there's anything wrong with the radio, it is fairly new, I
>was
>>>hoping to snatch the last bit of a fading signal from the ether.
>>>
>>>It is a very simple radio, the only controls are channel selection, squelch
>>>and volume.
>>>
>>>I know, get a more professional bit of kit, but I'm always challenged to
>try
>>>and improve things, which eventually costs more than buying the correct
>>>thing in the first place.
>>>
>>>I thing I've got the message, don't waste my time:<((
>>>
>>>Thanks to all for the help.
>>>
>>>Greg
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>>>
>>
>>
>> Nothing to add ... I just wanted to make this quote longer.
>>
>> :^]
>>
>> jw
>> K9RZZ
>
>
> Well, you could have done that better by adding more than a one line
>comment! I mean really. Now go away, think about what you did, and come
>back and post at least 4 lines of sentence to add to the thread. Then
>you'll be doing it right! 8^)
>
> - Mike KB3EIA -
>

Yeah, you are correct.

I should have added more than a one liner.

Next time I'll know better.

Gee, I think I'll have pizza for dinner.

jw
K9RZZ

305. Re: Tektronix 497P 100 Hz-21 GHz spectrum analyzer

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-19 20:23:20 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <MPG.1b3e4095faa1e7c49896c5@news-central.giganews.com>
Source record: 25487
Cross-posted to: misc.industry.electronics.marketplace,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

In article <LXUcnvLfEJ1AFwCL@birchnet.demon.co.uk>,
Bill@birchnet.demon.co.uk says...
> In message <MPG.1b3e1edec9bb27199896c3@news-central.giganews.com>, John
> Miles <jmiles@pop.removethistomailme.net> writes
> >and http://consolidatedsurplus.com.
> Didn't work for me but is it www.usimperio.com/consolidated/search.htm
> ????
>
> I've added the others to my favourites list though so thanks for
> pointing them out to us.

I think I left out a 'www.' on that one. You're right, it's the same
site as usimperio.com.

They have just about every manual on the planet, but the trouble is,
they only rent them. Consolidated Surplus's prices and policies are
very reasonable, but wait until you take a Tek 49x schematics volume to
Kinko's to have it copied. It costs a fortune and they *always* screw
it up somehow, because it's such a complex job.

The .PDF files are a much better deal, if they're legible at all.

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam
---

306. Re: DSB-SC

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-19 20:53:43 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10d99uh319mfpe5@corp.supernews.com>
Source record: 25488

PDRUNEN wrote:

> Hi Group,
>
> How difficult is it to put a balance modulator inside an radio that generates
> AM to get Double Side Band suppressed carrier? Where can I get a circuit for a
> balance modulator?
>
> Is it possible that someone listening to a DSB with a USB receiver will not be
> aware that there is another sideband on the LSB side?
>
> Has anyone is this group ever experimented with DSB?
>
> de KJ4UO

If you mean converting an AM transmitter to DSB it may not be trivial if the radio modulates the finals -- generally a DSB or SSB transmitter generates the energy at a low level and amplifies it up with a linear amplifier, while an AM-only rig may very well have a class-C final RF amp who's power supply is audio-modulated.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

307. Re: FM BCB Rcvr. design...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-19 20:55:30 UTC
From: mzenier@eskimo.com
Message-ID: <cb4fvpmnd1@eskinews.eskimo.com>
Source record: 25368

In article <180620042347405266%president@whitehouse.gov>,
Michael Dunn <president@whitehouse.gov> wrote:
> Hello fellow radionuts (radionauts?). For some reason, I've decided
>to design and build an FM tuner. Just to see if I can make a good one
>I guess. A few questions have presented themselves:
>
>-PLL or quadrature (IC) decoding?

Quadrature. Probably double tuned. (One of the old, now obselete,
demodulator IC's had a good description on double tuned quad coils,
but damned if I can remember which one. I searched for it, as there
was a newsgroup discussion of them going on at the time).

PLLs are feedback loops. Feedback loops are driven by error. In this
case error would show up as distortion.

You could also mix down to a lower IF than 10.7 and use a frequency to
voltage converter. (A precision one shot triggered on each cycle).

>-Stereo decoding: single IC or "discrete"?

>-Throw in SCA! Why not? PLL?

Narrowband IF ICs like the MC3361 make a good SCA demodulator. Basically
a superhet using the onboard oscillator and mixer that runs a 455 kHz
IF and a quadrature demodulator.

I did one with the MC3359, and I think it's on my ftp pages
at ftp://ftp.eskimo.com/u/m/mzenier .

>-Anyone in S Ontario (KW) area?
>
>
>-I'm still having a hard time figuring out AFC. I can see how I might
>do it with a PLL - the DC error voltage being used to pull the LO to
>the correct frequency. How was it done in the old days? ;-) If I

Just about all FM detectors (ratio det, discriminator, quad)
output down to DC (from the offset from mistuning) , which can
then be integrated/lowpassed to create the AFC voltage. On
frequency may be at 1/2 the power voltage for a quad detector, not
zero volts.

>could design not only AFC, but also automatic tuning of an RF
>preselector and perhaps even an antenna tuner, that would be tres cool.

Signal strength is a different signal from AFC. AFC comes after the
signal has been limited, so that's sort of information is lost.

Random comment: Elektor Electronics magazine, the european project magazine, had a fancy FM tuner project about a half a dozen years ago.

Mark Zenier mzenier@eskimo.com Washington State resident

308. Re: DSB-SC

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-19 21:00:19 UTC
From: Ralph Mowery <rmowery28146@earthlink.net>
Message-ID: <DP1Bc.7236$w07.6685@newsread2.news.pas.earthlink.net>
Source record: 25489

> If you mean converting an AM transmitter to DSB it may not be trivial if
> the radio modulates the finals -- generally a DSB or SSB transmitter
> generates the energy at a low level and amplifies it up with a linear
> amplifier, while an AM-only rig may very well have a class-C final RF
> amp who's power supply is audio-modulated.
>
> --
>
> Tim Wescott
> Wescott Design Services
> http://www.wescottdesign.com

I seem to remember some conversions about 30 years ago where another final tube was put in and the grids were fed in push pull and the plates were in parallel or single ended. Forgot where the audio was fed but think it was either the grids or screens. If there is room in the transmitter it was not really that much of a job.

309. Re: FM BCB Rcvr. design...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-19 21:00:22 UTC
From: mzenier@eskimo.com
Message-ID: <cb4fvtmne1@eskinews.eskimo.com>
Source record: 25369

In article <MPG.1b3d6a279006b0739896c2@news-central.giganews.com>,
John Miles <jmiles@pop.removethistomailme.net> wrote:
>>
>> -Throw in SCA! Why not? PLL?
>
>In a non-DSP solution, the choice of PLL-versus-quadrature techniques is
>usually driven by the need for stereo decoding. You're more likely to
>want a PLL to regenerate the 19 kHz pilot tone for stereo decoding.
>This is not necessarily the same stage (chip) that does the FM
>demodulation. Stereo MPX decoding is strictly a baseband process,
>regardless of implementation.

SCA signals are the Muzak, ethnic radio, and library for the blind
signals hidden on narrowband FM subcarriers. 67, 75, and 92 kHz.
There's also digital stuff, pagers mostly.

Mark Zenier mzenier@eskimo.com Washington State resident

310. Re: FM BCB Rcvr. design...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-19 21:01:29 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <JQ1Bc.3035$T_1.895@clgrps12>
Source record: 25490

Behold, Michael Dunn signalled from keyed 4-1000A filament:

> Thanks to all so far for the various comments. I guess i should have
> explained my design philosophy for this a bit.
>
> I don't want to do anything fancy, like DSP or even synthesized tuning.
> But, I don't want to go for a minimalist six-transistor design either!
> ;-) And I certainly don't want to use a radio-on-a-chip! I do want
> something of good quality in the end.

Hmmmm, some 12AT7's, a 6U8 mixer..... ;-)

--
Gregg
It's probably useful, even if it can't be SPICE'd
http://geek.scorpiorising.ca

311. Re: Tektronix 497P 100 Hz-21 GHz spectrum analyzer

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-19 21:39:17 UTC
From: KL=?ISO-8859-1?B?2A==?=S <kl0s@cox.net>
Message-ID: <BCFA2AC5.4DF3B%kl0s@cox.net>
Source record: 25491
Cross-posted to: misc.industry.electronics.marketplace,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

I've had very good luck getting Tek manuals from Deane Kidd...send him a
note at:

dektyr@teleport.com

and see if he might have the manuals you're looking for.

Good Luck!

Dino KLï¿½S/4

312. Re: Please I' need Help because Im in Ghetto.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-19 21:58:41 UTC
From: sipa <sipa@hrtv.net>
Message-ID: <cb2cutkgq1@ls219.htnet.hr>
Source record: 25492

> Unbelievable a My story
> Dear Sir,
> Please I' need Help because Im in Ghetto.
> ....

jesi nasa crkvu za boga molit....
nemoj off topican biti ovdje

313. Re: Tektronix 497P 100 Hz-21 GHz spectrum analyzer

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-19 22:00:19 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <MPG.1b3e574bc7523db9896c6@news-central.giganews.com>
Source record: 25493
Cross-posted to: misc.industry.electronics.marketplace,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

In article <BCFA2AC5.4DF3B%kl0s@cox.net>, kl0s@cox.net says...
> I've had very good luck getting Tek manuals from Deane Kidd...send him a
> note at:
>
> dektyr@teleport.com
>
> and see if he might have the manuals you're looking for.
>
> Good Luck!
>
> Dino KLØS/4

Good point; he came up dry when I asked him about 497P manuals but he
may well have some for the 496. I bought a brand-new set of 494AP
manuals from him a couple of years ago.

He might have a keyboard controller, for that matter.

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam
---

314. Re: Please I' need Help because Im in Ghetto.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-19 23:05:38 UTC
From: Roger Gt <not@here.net>
Message-ID: <6F3Bc.2118$sk7.960@newssvr25.news.prodigy.com>
Source record: 25494

"sipa" <sipa(izbrisi)@hrtv.net> wrote in message
news:cb2cutkgq1@ls219.htnet.hr...
: > Unbelievable a My story
: > Dear Sir,
: > Please I' need Help because I'm in Ghetto.
: > ....

Ghetto means "Neighborhood" SO?

315. Re: FM BCB Rcvr. design...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-19 23:26:29 UTC
From: "Bob G. Mahrenholz" <bobm@edge.net>
Message-ID: <40D4CBA2.91820EAA@edge.net>
Source record: 25495

Michael Dunn wrote:

> Hello fellow radionuts (radionauts?). For some reason, I've decided
> to design and build an FM tuner. Just to see if I can make a good one
> I guess. A few questions have presented themselves:
>
> -PLL or quadrature (IC) decoding?
>
> -Stereo decoding: single IC or "discrete"?
>
> -Throw in SCA! Why not? PLL?
>
> -Anyone in S Ontario (KW) area?
>
> -I'm still having a hard time figuring out AFC. I can see how I might
> do it with a PLL - the DC error voltage being used to pull the LO to
> the correct frequency. How was it done in the old days? ;-) If I
> could design not only AFC, but also automatic tuning of an RF
> preselector and perhaps even an antenna tuner, that would be tres cool.
>
> All thoughts greatly appreciated.
>
> Michael Dunn
> VA3SSP
> mdunn @at@ cantares.on.ca
> Tech museums: http://www.cantares.on.ca/museums.htm
> Design portfolio: http://www.cantares.on.ca/portfolio/

Here's a design I used quite successfully:
www.web-ee.com/Schematics/FM_RCVR/FM_RCVR.pdf

Bob
K4QQK

316. Solder-Mount breadboarding parts

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-19 23:45:47 UTC
From: Michael Dunn <president@whitehouse.gov>
Message-ID: <1906200419454709 31%president@whitehouse.gov>
Source record: 25496

Anyone used the SolderMount system? It looks great. In fact, anyone have bits they'd like to sell me? I could use some SOICs and other odds n ends.

Michael
mdunn @@@ cantares.on.ca

317. Double gate FET

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-20 00:38:58 UTC
From: Bill Hennessy <elhen704@yahoo.com>
Message-ID: <40d4dc88$0$13057$9a6e19ea@news.newshosting.com>
Source record: 25347

Does anyone know where I can get a double gate fet like the old 40673?
I know Ocean State has it but it's kind of high $8.50, I know their are
others like the 3N201 and BF900. But can't seem to find them anyplace.

Bill, N5NOB

318. Re: Double gate FET

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-20 01:23:04 UTC
From: Richard Heindel <rheindel@neo.rr.com>
Message-ID: <YF5Bc.128475$DG4.83381@fe2.columbus.rr.com>
Source record: 25348

Here is a promising link:
http://www.electronics-plus.com/Merchant/graphics/surplus/BACKUP6.html
The MFE201 is a good replacement for the old 40673.

Richard WB8KRN

"Bill Hennessy" <elhen704@yahoo.com> wrote in message
news:40d4dc88$0$13057$9a6e19ea@news.newshosting.com...
> Does anyone know where I can get a double gate fet like the old 40673?
> I know Ocean State has it but it's kind of high $8.50, I know their are
> others like the 3N201 and BF900. But can't seem to find them anyplace.
>
> Bill, N5NOB

319. Re: Double gate FET

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-20 02:18:46 UTC
From: Ken Scharf <wa2mzeNOTTHIS@bellsouth.net>
Message-ID: <km6Bc.2588$Z26.663@bignews1.bellsouth.net>
Source record: 25349

Bill Hennessy wrote:
> Does anyone know where I can get a double gate fet like the old 40673? I
> know Ocean State has it but it's kind of high $8.50, I know their are
> others like the 3N201 and BF900. But can't seem to find them anyplace.
>
> Bill, N5NOB
I think they are now over $10 each in Ocean State's newest catalog I
just got in the mail!

I saw a web page somewheres showing that you can simulate a dual gate
mosfet with two jfets in series cascade. J310's work well in this
circuit and they are cheap.

320. Re: Double gate FET

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-20 02:32:33 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <MPG.1b3e8e3f5ba5ec919896c9@news-central.giganews.com>
Source record: 25350

```
In article <YF5Bc.128475$DG4.83381@fe2.columbus.rr.com>,
rheindel@neo.rr.com says...
> Here is a promising link:
http://www.electronics-plus.com/Merchant/graphics/surplus/BACKUP6.html
> The MFE201 is a good replacement for the old 40673.
>
> Richard WB8KRN
>
> "Bill Hennessy" <elhen704@yahoo.com> wrote in message
news:40d4dc88$0$13057$9a6e19ea@news.newshosting.com...
> > Does anyone know where I can get a double gate fet like the old 40673?
> > I know Ocean State has it but it's kind of high $8.50, I know their are
> > others like the 3N201 and BF900. But can't seem to find them anyplace.
> >
> > Bill, N5NOB
>
>
>

40673s can also still be purchased as the NTE 222.

-- jm

-------------------------------------------------------
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam
-------------------------------------------------------
```

321. Re: FM BCB Rcvr. design...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-20 03:28:44 UTC
From: Doug Smith W9WI <w9wi@invalid.invalid>
Message-ID: <40D50466.9070907@invalid.invalid>
Source record: 25351

Michael Dunn wrote:
> Thanks to all so far for the various comments. I guess i should have
> explained my design philosophy for this a bit.

What is your reception goal for this receiver?

- High fidelity?

- High sensitivity?

- Adjacent-channel rejection?

- Overload tolerance?

- Low cost?

(or of course, some combination of the above?)

I think the best way to do it will be VERY dependent on what you're
trying to accomplish.
--
Doug Smith W9WI
Pleasant View (Nashville), TN EM66
http://www.w9wi.com

322. Re: DSB-SC

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-20 04:30:53 UTC
From: et472@FreeNet.Carleton.CA
Message-ID: <cb33ttobt1@freenet9.carleton.ca>
Source record: 25352

PDRUNEN (pdrunen@aol.com) writes:
> Hi Group,
>
> How difficult is it to put a balance modulator inside an radio that generates
> AM to get Double Side Band suppressed carrier? Where can I get a circuit for a
> balance modulator?
>
> Is it possible that someone listening to a DSB with a USB receiver will not be
> aware that there is another sideband on the LSB side?
>
> Has anyone is this group ever experimented with DSB?
>
> de KJ4UO

Most of the work on DSBsc in amateur circles is about simplicity. They aren't using it for the benefits of having two sidebands, complete with the receiver circuitry to take advantage of it. It is used because it's cheaper than a complete SSB transmitter. And yes, the intent is that you use a sideband receiver to receive it, at which point it cannot be differentiated from an actual single sideband signal out of the transmitter.

Indeed, unless one has a a synchronous detector, it will be difficult to properly demodulate the DSBsc signal unless one strips off the extra sideband.

With SSB, if the reinserted carrier is off a bit, you simply have output that is somehwat shifted in the spectrum. But if you have a DSB signal, if the carrier is not reinserted right in the middle of those two sidebands, the two sidebands will not translate to the exact audio frequency, and the output will be horrible. Strip off the extra sideband, either at the transmitter or the receiver, and it's an SSB signal that the product detector is dealing with.

So decades ago (and likely it's still the case) the reason most times DSB transmitters appeared in ham magazines was because it was simpler to generate DSBsc than an SSB signal. And all of the articles would talk of how the guy at the other end would likely never notice.

As for modifying an AM transmitter, the trick is to find one with a balanced output stage. If you've got two tubes there, likely it can be made into a balanced modulator. And one thing that is forgotten is that it makes no difference whether the signal is generated at a low level and amplified, or generated at a high level. Indeed, in the latter case you eliminate the long string of linear amplifiers.

Michael VE2BVW

323. Re: Double gate FET

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-20 06:35:23 UTC
From: Leon Heller <leon_heller@hotmail.com>
Message-ID: <40d5302a$0$285$cc9e4d1f@news-text.dial.pipex.com>
Source record: 25353

"Bill Hennessy" <elhen704@yahoo.com> wrote in message
news:40d4dc88$0$13057$9a6e19ea@news.newshosting.com...
> Does anyone know where I can get a double gate fet like the old 40673?
> I know Ocean State has it but it's kind of high $8.50, I know their are
> others like the 3N201 and BF900. But can't seem to find them anyplace.

Current dual-gate MOSFETs like the Philips BF991 shouldn't be difficult to
find. Packages are very small though, the BF991 is SOT243B.

73, Leon
--
Leon Heller, G1HSM
http://www.geocities.com/leon_heller

324. Re: Double gate FET

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-20 07:26:17 UTC
From: Gary Morton <gary@alma.demon.co.uk>
Message-ID: <t_aBc.624$%P.5077043@news-text.cableinet.net>
Source record: 25354

Bill Hennessy wrote:
> Does anyone know where I can get a double gate fet like the old 40673? I
> know Ocean State has it but it's kind of high $8.50, I know their are
> others like the 3N201 and BF900. But can't seem to find them anyplace.
>
> Bill, N5NOB

Bill,

if you don't mind going international, J.Birkett of Lincoln has been
advertising the 40673s for ï¿½1.50 (around $2.50?) for the past two months.
Seems a good price to me for a hard to find device. Check out a copy of Radcom
if you can find on over there.

regards...

--Gary

325. For all I have Mail Delivery Subsystem

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-20 08:43:22 UTC
From: Zoran Dimitrijevic <zorandi@EUnet.yu>
Message-ID: <cb3imias1@news.eunet.yu>
Source record: 25355

THIS WHOLE STORY IS OPENED AND PERMISSIVE FOR PUBLISH FOR EVERY WHO WISH ON WHATEVER WAY.
NO LIMIT, NOT CONTRACT
Likewise, is PERMISSIVE every my email and www address.

My self
Zoran Dimitrijevic

zorandi2002@yahoo.com
nikaca2000@yahoo.com
or
ICQ
263-211-512
or , but is email occasionally Blocked I can't send and receive
zorandi@EUnet.yu
nacom@EUnet.yu

http://www30.brinkster.com/aferatelekom
http://www30.brinkster.com/aferatelekom/Obrenovici.htm
or download
http://www30.brinkster.com/aferatelekom/Obrenovici.zip

326. Re: Double gate FET

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-20 08:54:34 UTC
From: Eamon Skelton <Xnospam@oceanfree.net>
Message-ID: <avvfq1-h24.ln1@skelton.news.cis.dfn.ed>
Source record: 25356

Bill Hennessy wrote:
> Does anyone know where I can get a double gate fet like the old 40673? I
> know Ocean State has it but it's kind of high $8.50, I know their are
> others like the 3N201 and BF900. But can't seem to find them anyplace.
>
> Bill, N5NOB

BF961 and BF981. Both well under a $.
See: http://www.grandata.co.uk/

73, Ed. EI9GQ.

--
Remove 'X' to reply by E-mail.
Linux 2.6.7

327. Re: Double gate FET

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-20 09:08:51 UTC
From: Eamon Skelton <Xnospam@oceanfree.net>
Message-ID: <3q0gq1-944.ln1@skelton.news.cis.dfn.ed>
Source record: 25357

Eamon Skelton wrote:

> See: http://www.grandata.co.uk/

Or closer to home:
http://www.rfparts.com/2sk.html#3sk

73, Ed. EI9GQ.

--
Remove 'X' to reply by E-mail.
Linux 2.6.7

328. Re: Tektronix 497P 100 Hz-21 GHz spectrum analyzer

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-20 09:16:49 UTC
From: SioL <nospam@die-spammers.com>
Message-ID: <eCcBc.5174$37.688888@news.siol.net>
Source record: 25358
Cross-posted to: misc.industry.electronics.marketplace,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

"John Miles" <jmiles@pop.removethistomailme.net> wrote in message
news:MPG.1b3e3f567f72cb939896c4@news-central.giganews.com...
> > Thanks.
> >
> > I'll look at those pdf files on ebay.
> >
> > The uncal light is unfortunately always on, none of the settings affects it.
> > The controls seem to work, but they don't affect uncal led. I guess I really
> > need the manual. Probably something in there that could explain it.
>
> That would make me suspect the keyboard controller chip. In the 492, I
> ended up replacing it with a BASIC stamp (which I still have in the junk
> box somewhere; you're welcome to it if that's the problem).
>
> Does your TIME/DIV knob do anything at all?
>
> -- jm

What puzzles me in that case is why are all of the functions/buttons working?
Yes, even the TIME/DIV works as expected, all positions. Same goes for other
buttons.

When I turn it on it always starts with some strange settings and I need to reset it,
perhaps the EEPROM or RAM has failed over the years. Or I don't know how to
store the settings.

SioL

329. Re: Double gate FET

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-20 10:20:15 UTC
From: Highland Ham <abgm0csz.kn6whyz@ntlworld.com>
Message-ID: <J%gBc.109$ig5.79@newsfe3-gui>
Source record: 25360

> > Does anyone know where I can get a double gate fet like the old 40673? I
> > know Ocean State has it but it's kind of high $8.50, I know their are
> > others like the 3N201 and BF900. But can't seem to find them anyplace.
> >
> > Bill, N5NOB
>
> BF961 and BF981. Both well under a $.
> See: http://www.grandata.co.uk/
==========
from Mode Components - Birmingham ,UK www.modecomponents.co.uk
BF961 GBP 0.56 equiv. US$ 0.80
BF981 GBP 0.80 equiv. US$ 1.20

Frank GM0CSZ / KN6WH

tnx Ed for grandata website info

330. Re: Double gate FET

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-20 11:04:19 UTC
From: Leon Heller <leon_heller@hotmail.com>
Message-ID: <40d56f33$0$282$cc9e4d1f@news-text.dial.pipex.com>
Source record: 25359

"Gary Morton" <gary@alma.demon.co.uk> wrote in message
news:t_aBc.624$%P.5077043@news-text.cableinet.net...
> Bill Hennessy wrote:
> > Does anyone know where I can get a double gate fet like the old 40673? I
> > know Ocean State has it but it's kind of high $8.50, I know their are
> > others like the 3N201 and BF900. But can't seem to find them anyplace.
> >
> > Bill, N5NOB
>
> Bill,
>
> if you don't mind going international, J.Birkett of Lincoln has been
> advertising the 40673s for £1.50 (around $2.50?) for the past two months.
> Seems a good price to me for a hard to find device. Check out a copy of
Radcom
> if you can find on over there.

Here is their web page:

http://www.zyra.org.uk/birkett.htm

I was in Lincoln once and looked them up - piles of electronic junk, some of
it useful.

Leon
--
Leon Heller, G1HSM
http://www.geocities.com/leon_heller

331. My email is full blocked, I can`t receive ours mail, else are empty

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-20 13:26:14 UTC
From: Zoran Dimitrijevic <zorandi@EUnet.yu>
Message-ID: <cb43dv$6ku$10@news.eunet.yu>
Source record: 25361

My email is full blocked, I can`t receive ours mail, else are empty

Samps on I sent messages:

alt.personals
alt.personals.interracial
alt.personals.misc.
alt.personals.vancouver
alt.usage.English
news.answers
rec.tadio.amateur
rec.radio.amateur.antenna
rec,radio.amateur.boatanchors
rec.radio.amateur.digital.misc.
rec.radio.amateur.dx
rec.radio.amateur.equipment
rec.radio.amateur.homebrew
rec.radio.amateur.misc.
rec.radio.amateur.policy
rec.radio.amateur.space
rec.radio.amateur.swap
rec.radio.info
uk.railway
yu.eunet.oglasi
yu.forum.politika

where not my answers, I not see ours questions

I have free space on

zorandi@EUnet.yu 30Mb
nacomp@EUnet.yu 30Mb
zorandi2002@yahoo.com 100Mb
nikaca2000@yahoo.com 100Mb

I not receive neither messages ours because are Blocked of telepathy master

But, I working and never desist
If Somebody that commit Redirection my addresses of own site, Please.

THIS WHOLE STORY IS OPENED AND PERMISSIVE FOR PUBLISH FOR EVERY WHO WISH ON
WHATEVER WAY.
NO LIMIT, NOT CONTRACT
Likewise, is PERMISSIVE every my email and www address.

My self
Zoran Dimitrijevic

zorandi2002@yahoo.com
nikaca2000@yahoo.com
or
ICQ
263-211-512
or , but is email occasionally Blocked I can't send and receive
zorandi@EUnet.yu
nacom@EUnet.yu

http://www30.brinkster.com/aferatelekom
http://www30.brinkster.com/aferatelekom/Obrenovici.htm
or download
http://www30.brinkster.com/aferatelekom/Obrenovici.zip

332. Re: My email is full blocked, I can`t receive ours mail, else are empty

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-20 13:40:12 UTC
From: Emmersom Bigguns <smokey@twist1up.com>
Message-ID: <0tgBc.2852$rL4.248@fe2.columbus.rr.com>
Source record: 25362

If I give you a shinny quarter, will you go away?

333. Re: Antenna Preamp

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-20 14:34:53 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <2e7bd050u5qomj8034cnlfgoon5otr1281@4ax.com>
Source record: 25363

On 18 Jun 2004 04:36:49 GMT, averyfineman@aol.com (Avery Fineman)
wrote:

> Putting on the skeptic's hat, I'd have to ask why the need of a
> preamp? If more receive gain is desired, the safer place to do
> that could be in the transceiver itself. The T/R switching is already
> there and presumably safe to use as it is.

An exceedingly well-written explanation, if I may say so, Len.
You're of course right to suggest the above solution; the only problem
nowadays being the mind-boggling lack of space inside the new
transceivers!
As for the use of switching relays at RF; surely someone must make RF
relays specifically to preserve the 50 ohm characteristic impedance of
most transmission lines? After all, 29Mhz is one thing, but what is
one to do at say 2Ghz??
--

"What is now proved was once only imagin'd." - William Blake, 1793.

334. Re: Please I' need Help because Im in Ghetto.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-20 14:47:23 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <6n8bd09e2jlgpvpr0hrnkfcjctbsv0nsf3@4ax.com>
Source record: 25364

On Sat, 19 Jun 2004 23:05:38 GMT, "Roger Gt" <not@here.net> wrote:

>
>"sipa" <sipa(izbrisi)@hrtv.net> wrote in message
>news:cb2cutkgq1@ls219.htnet.hr...
>: > Unbelievable a My story
>: > Dear Sir,
>: > Please I' need Help because I'm in Ghetto.
>: > ....
>
>
>
>Ghetto means "Neighborhood" SO?

This guy has obviously written out his original diatribe in
Serbo-Croat and just parsed it through one of those crappy web
language-translator sites where all the grammar gets screwed up and
much of the sense is lost. What it's got to do with us on this group
is still a mystery, however.

--

"What is now proved was once only imagin'd." - William Blake, 1793.

335. Re: Double gate FET

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-20 14:52:27 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <rv8bd0to7eisujv5uois9o0u8vn2j0j9er@4ax.com>
Source record: 25365

On Sat, 19 Jun 2004 22:18:46 -0400, Ken Scharf
<wa2mzeNOTTHIS@bellsouth.net> wrote:

>I saw a web page somewheres showing that you can simulate a dual gate
>mosfet with two jfets in series cascade. J310's work well in this
>circuit and they are cheap.

Though not if you buy them from MkV in the UK where they want seven
quid! What's that...$11 for a lousy common JFET. Happily they're
readily available elsewhere for a fraction of that ridiculous price.
Yeah, the cascade solution's good if space permits.

--

"What is now proved was once only imagin'd." - William Blake, 1793.

336. Re: DSB-SC

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-20 15:43:55 UTC
From: fmmck@aol.com
Message-ID: <20040620114355.04194.00000248@mb-m15.aol.com>
Source record: 25366

<< Where can I get a circuit for a
balance modulator? >>

P.D.-

Many, if not most SSB rigs generate DSB-SC and flter-out the unwanted sideband. Therefore, it may be easier to generate DSB by modifying an existing SSB rig, replacing the SSB filter with a wideband AM filter.

I haven't listened lately, but years ago there was a foreign broadcast station just above the Fifteen Meter band, that was broadcasting DSB-SC. The carrier wasn't completely suppressed, so I suppose this is "VC" or Vestigal Carrier! I think the station was out of Quito, Ecuador.

This station was intended to be received using a synchronous detector. I had no trouble receiving it on my SSB rig. I could even get music to sound OK by careful adjustment to match their frequency.

73, Fred, K4DII

337. Re: Tektronix 497P 100 Hz-21 GHz spectrum analyzer

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-20 16:20:38 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <MPG.1b3f5935b1e240689896ca@news-central.giganews.com>
Source record: 25367
Cross-posted to: misc.industry.electronics.marketplace,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

In article <eCcBc.5174$37.688888@news.siol.net>, nospam@die-spammers.com
says...
> "John Miles" <jmiles@pop.removethistomailme.net> wrote in message
> news:MPG.1b3e3f567f72cb939896c4@news-central.giganews.com...
> > > Thanks.
> > >
> > > I'll look at those pdf files on ebay.
> > >
> > > The uncal light is unfortunately always on, none of the settings affects it.
> > > The controls seem to work, but they don't affect uncal led. I guess I really
> > > need the manual. Probably something in there that could explain it.
> >
> > That would make me suspect the keyboard controller chip. In the 492, I
> > ended up replacing it with a BASIC stamp (which I still have in the junk
> > box somewhere; you're welcome to it if that's the problem).
> >
> > Does your TIME/DIV knob do anything at all?
> >
> > -- jm
>
> What puzzles me in that case is why are all of the functions/buttons working?
> Yes, even the TIME/DIV works as expected, all positions. Same goes for other
> buttons.
>
> When I turn it on it always starts with some strange settings and I need to reset it,
> perhaps the EEPROM or RAM has failed over the years. Or I don't know how to
> store the settings.

That's odd, all right. With my 492, I had to manually rotate TIME/DIV
back and forth into the AUTO position after power-up to get the
instrument to read it.

I'm not sure what would cause random or non-standard power-up settings
besides a flaky keyboard controller that doesn't respond to the CPU's
first few accesses after power up. The 496 doesn't have the capability
to store its settings in NVRAM like the 494 and later models, so it
shouldn't be a case of corrupted memory. The EPROMs are checksummed, so
if you don't receive any power-up error messages, they are OK.

I suppose one worthwhile test would be to make *sure* that the UNCAL
light is on for no good reason (as opposed to invalid startup settings).
Power it on, rotate TIME/DIV back and forth leaving it in 5
seconds/division (the slowest setting), and manually set the other
controls for 1 MHz RBW and 100 MHz/division sweep with no video

filtering. The UNCAL light should definitely not be on at that point.
If it is, you can disregard it for the time being if everything else
works right.

I'll poke around in my 492 manual and see if anything leaps out at me.

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam
---

338. Re: My email is full blocked, I can`t receive ours mail, else are empty

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-20 17:55:55 UTC
From: Roger Gt <not@here.net>
Message-ID: <LckBc.6236$xE7.3839@newssvr27.news.prodigy.com>
Source record: 25370

"Emmersom Bigguns" <smokey@twist1up.com> wrote in message
news:0tgBc.2852$rL4.248@fe2.columbus.rr.com...
: If I give you a shinny quarter, will you go away?

Hey, don't encourage him, Beggars never go away if they get
Anything!

339. Re: Double gate FET

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-20 18:17:42 UTC
From: marsgal42@hotmail.com
Message-ID: <d42b5a72.0406201017.5a4de3e5@posting.google.com>
Source record: 25371

Bill Hennessy <elhen704@yahoo.com> wrote in message
news:<40d4dc88$0$13057$9a6e19ea@news.newshosting.com>...
> Does anyone know where I can get a double gate fet like the old 40673?
> I know Ocean State has it but it's kind of high $8.50, I know their are
> others like the 3N201 and BF900. But can't seem to find them anyplace.
>
> Bill, N5NOB

What sort of project did you have in mind? There
is a reason they don't make 40673s any more, and I
am always slightly suspicious when somebody is
looking specifically for them. At the height of
their popularity, ham projects used 40673 for all
sorts of things. Now, about the only thing people
still do with them is low-noise RF amplifiers
(e.g. BF991).

My supply of BF961/981s came from Cricklewood in London
and Les Cyclades in Paris. Barend Hendriksen have them
too.

Laura Halliday VE7LDH "Que les nuages soient notre
Grid: CN89mg pied a terre..."
ICBM: 49 16.05 N 122 56.92 W - Hospital/Shafte

340. Re: FM BCB Rcvr. design...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-20 18:51:54 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <MPG.1b3f7ca7d2f7be2f9896cb@news-central.giganews.com>
Source record: 25372

In article <cb4fvpmnd1@eskinews.eskimo.com>, mzenier@eskimo.com
says...

> PLLs are feedback loops. Feedback loops are driven by error. In this
> case error would show up as distortion.
>

Well, that's a pretty extreme oversimplification.

Error above the loop bandwidth shows up as distortion. To use a PLL to
recover FM, you use a wide bandwidth that covers the entire baseband
spectrum of interest. That way, the error *is* the signal. Very
standard technique.

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam
---

341. OCXO module Spec's and Pinouts?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-20 19:25:51 UTC
From: "Leland C. Scott" <kc8ldo@arrl.net>
Message-ID: <jKidnV6jMskkeUjdRVn-tA@comcast.com>
Source record: 25373

Does anybody have the specifications and pinouts for the following
oscillator modules?

Ovenaire OSC 48-11C Frequency 3.000 MHz

Ovenaire-Audio-Carpenter OSC 91-21 Frerquency 44.736 MHz

--
Leland C. Scott
KC8LDO

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342. Re: OCXO module Spec's and Pinouts?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-20 19:39:47 UTC
From: Leon Heller <leon_heller@hotmail.com>
Message-ID: <40d5e805$0$298$cc9e4d1f@news-text.dial.pipex.com>
Source record: 25374

"Leland C. Scott" <kc8ldo@arrl.net> wrote in message
news:jKidnV6jMskkeUjdRVn-tA@comcast.com...
> Does anybody have the specifications and pinouts for the following
> oscillator modules?
>
> Ovenaire OSC 48-11C Frequency 3.000 MHz
>
> Ovenaire-Audio-Carpenter OSC 91-21 Frerquency 44.736 MHz

If they are similar to the ones made by the major cystal manufacturers they should have the same pinout. It seems to be standard - Gnd on pin 2, Vcc on pin 4, etc.

Leon
--
Leon Heller, G1HSM
http://www.geocities.com/leon_heller

343. FA: JENNINGS VACUUM VARIABLES

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-20 20:34:30 UTC
From: "Richard W. Solomon, W1KSZ" <w1ksz@earthlink.net>
Message-ID: <v5tbd0dbo1vh4ds7iim7k3knn7ia95cr5c@4ax.com>
Source record: 25375

I just listed two unused Jennings Vacuum Variables on e-Bay.
GCS-100-15S, 5 - 100 pf @ 15 KVDC, and
UCSV-110-15S, 8 - 110 pf @ 15 KVDC.
You can see them at:

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=5705842063&ssPageName=ADME:B:LC:US:1

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=5705842386&ssPageName=ADME:B:LC:US:1

Thanks, Dick, W1KSZ

344. Re: FM BCB Rcvr. design...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-20 21:21:21 UTC
From: Michael Dunn <president@whitehouse.gov>
Message-ID: <2006200417212169 95%president@whitehouse.gov>
Source record: 25376

In article <40D50466.9070907@invalid.invalid>, Doug Smith W9WI
<w9wi@invalid.invalid> wrote:
> What is your reception goal for this receiver?
>
> - High fidelity?
>
> - High sensitivity?
>
> - Adjacent-channel rejection?
>
> - Overload tolerance?

Pretty much all of the above. Cost is secondary. Though I do like simple elegance, and I'm not going to go as far as the SUPRX mentioned by Bob, though it must be a fine rcvr.

Mark mentioned:
>>could design not only AFC, but also automatic tuning of an RF
>>preselector and perhaps even an antenna tuner, that would be tres cool.

>Signal strength is a different signal from AFC. AFC comes after the
>signal has been limited, so that's sort of information is lost.

Yes, I know. I was just conceptually linking AFC to "AAT" and "APS". The latter two would be a lot trickier I think since we're not dealing with a monotonic function, but one with a peak. Might need a uP or some overly complex analog circuits...

Speaking of quadrature demods, wouldn't best performance be had by using a 23.3ns (90deg@10.7MHz) wideband delay instead of a single or double-tuned LC. I just found one with 30MHz BW...

Michael

345. Re: OCXO module Spec's and Pinouts?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-20 21:22:20 UTC
From: "Leland C. Scott" <kc8ldo@arrl.net>
Message-ID: <IMydnclgWbWbnUvd4p2dnA@comcast.com>
Source record: 25377

"Leon Heller" <leon_heller@hotmail.com> wrote in message
news:40d5e805$0$298$cc9e4d1f@news-text.dial.pipex.com...
> "Leland C. Scott" <kc8ldo@arrl.net> wrote in message
> news:jKidnV6jMskkeUjdRVn-tA@comcast.com...
> > Does anybody have the specifications and pinouts for the following
> > oscillator modules?
> >
> > Ovenaire OSC 48-11C Frequency 3.000 MHz
> >
> > Ovenaire-Audio-Carpenter OSC 91-21 Frerquency 44.736 MHz
>
> If they are similar to the ones made by the major cystal manufacturers
they
> should have the same pinout. It seems to be standard - Gnd on pin 2, Vcc
on
> pin 4, etc.

The OSC 48-11C has 4 terminals on the top of a rather large rectangular metal box labeled E1,E2,E3, and E4. The box is 11 cm long by 3.7 cm wide by 5.2 cm high. There are two access screws on the end marked "fine" and "coarse". This module looks almost exactly like an old Motorola oscillator module with a model number of "K1052A ASP06". The difference is the OSC 48-11C is in a steel case while the Motorola unit is in a machined aluminum case with three terminals in the same location labeled E1, E2, and E3. Somebody has already sent me some info about the Motorola unit. I suspect the Motorola unit is a copy of the OSC 48-11C, which I think is maybe a double oven design.

The OSC 91-21 module is in a steel case 5.1 cm square by 1.5 cm high. There are only three terminals in a line by one corner. The center terminal is clearly the case, but I don't have a clue about which one is the RF out and Vcc input, and voltage required. I don't want to "experiment" with the two I have as both appear to be new and never used.
--
Leland C. Scott
KC8LDO

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346. Re: FA: JENNINGS VACUUM VARIABLES

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-20 21:41:38 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <mwnBc.36462$K53.13261@edtnps89>
Source record: 25378

Wow! Vacuum Variables starting at a price I don't have to mortgage my
house to get! :-o

--
Gregg
It's probably useful, even if it can't be SPICE'd
http://geek.scorpiorising.ca

347. Re: Antenna Preamp

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-20 22:21:02 UTC
From: averyfineman@aol.com
Message-ID: <20040620182102.23112.00000569@mb-m04.aol.com>
Source record: 25379

In article <2e7bd050u5qomj8034cnlfgoon5otr1281@4ax.com>, Paul Burridge
<pb@notthisbit.osiris1.co.uk> writes:

>On 18 Jun 2004 04:36:49 GMT, averyfineman@aol.com (Avery Fineman)
>wrote:
>
>> Putting on the skeptic's hat, I'd have to ask why the need of a
>> preamp? If more receive gain is desired, the safer place to do
>> that could be in the transceiver itself. The T/R switching is already
>> there and presumably safe to use as it is.
>
>An exceedingly well-written explanation, if I may say so, Len.
>You're of course right to suggest the above solution; the only problem
>nowadays being the mind-boggling lack of space inside the new
>transceivers!
>As for the use of switching relays at RF; surely someone must make RF
>relays specifically to preserve the 50 ohm characteristic impedance of
>most transmission lines? After all, 29Mhz is one thing, but what is
>one to do at say 2Ghz??

Thank you, Paul.

There are many, many UHF-and-up relays available on the market,
but at a price most of us can't afford for hobby projects.

Those designs, as with UHF+ connectors, are arranged to minimize
the literal discontinuities that change spacing, dielectric material, and
so forth that alter the "characteristic impedance" of the equivalent
transmission line section of the structure. That's the price one pays.

There are some alternatives at lower powers. For an example, reed
relays can be fitted in brass sleeves (non-magnetic anything) and
form an acceptible coaxial transmission line section. Takes a bit of
experimentation to get the "outer conductor" v. inner conductor
ratios correct. I know those can operate to 3 GHz with less than
1.5 VSWR.

A high-environment relay (such as Military airborne) is the "rotary"
type. The magnetic core is attached to a plastic spider, all
arranged to move the spider in a short arc. Fingers on the spider
move low-length contacts welded to the hermetic seal pins of the
cylindrical case bottom. Moving contact length is roughly a
quarter inch, less than a cm. Very low contact-to-case-ground
capacitance, under 2 pFd, any combination. Allied Signal made
thousands of them and that style is still available, but for a
horrendous price, such as US$26 for a 6PDT, new. 2 A, 28 VDC

contact ratings...usually with a 28 VDC coil, but there are variants of that for new designs. Hermetically sealed, those last forever. I have some factory surplus left over from 1957, used in Hughes Aircraft radar sets. Those can be found in various surplus gear and most hobbyists just discard them, thinking they can't use them for anything practical. I've had success using those in RF switching up to 1 GHz with VSWRs less than 1.8:1.

A variation is the "crystal can" low-power relay, again sealed, but contacts seldom go beyond 2PDT. Different contact-move arrangements but the contact lead length is very short, minimum inductance, and very low capacitance to case ground or other contacts. Those have cases the size of an HC-6 quartz crystal unit, some slightly larger but in the same dimension ratio.

Even the open-frame, leaf-spring contact arrangement can be used at UHF with minimum discontinuity for balanced line switching. Those require much examination as to the relative spacings of the contact leaf springs, leaf widths, etc., and some are the wrong dimensions and cannot be used. That kind of relay was never designed for RF applications so there are no manufacturer's ratings for that...one has to experiment.

For very quick checking of what can work and what can't, a TDR or Time Domain Reflectometer can show that immediately. TDRs have been around for three decades but are still horribly expensive. Those who have them at work have an advantage of sneaking in experimentation during lunch hour. :-)

LenAnderson@ieee.org

348. Re: FM BCB Rcvr. design...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-20 23:46:48 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <MPG.1b3fc1c22eb1d9379896cc@news-central.giganews.com>
Source record: 25380

> Speaking of quadrature demods, wouldn't best performance be had by
> using a 23.3ns (90deg@10.7MHz) wideband delay instead of a single or
> double-tuned LC. I just found one with 30MHz BW...

Probably not, unless there's something I'm missing. You don't want a wideband circuit here -- the quadrature detector takes advantage of phase shift through the passband. Basically it uses a mixer to compare a signal with a phase-shifted version of itself, with the output being proportional to the actual phase difference. With a single-tuned circuit, the 3 dB point corresponds to 45 degrees of phase shift, and that's where you center the quadrature coil.

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam
---

349. I`m Sorry, I Have Rectification

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-21 06:07:29 UTC
From: Zoran Dimitrijevic <zorandi@EUnet.yu>
Message-ID: <cb5u56$ri6$1@news.eunet.yu>
Source record: 25381

Only
rec.radio.amateur.homebrew
and
uk.railway
work correct.

> My email is full blocked, I can`t receive ours mail, else are empty
>
> Samps on I sent messages:
>
> alt.personals
> alt.personals.interracial
> alt.personals.misc.
> alt.personals.vancouver
> alt.usage.English
> news.answers
> rec.tadio.amateur
> rec.radio.amateur.antenna
> rec,radio.amateur.boatanchors
> rec.radio.amateur.digital.misc.
> rec.radio.amateur.dx
> rec.radio.amateur.equipment
> rec.radio.amateur.homebrew
> rec.radio.amateur.misc.
> rec.radio.amateur.policy
> rec.radio.amateur.space
> rec.radio.amateur.swap
> rec.radio.info
> uk.railway
> yu.eunet.oglasi
> yu.forum.politika
>
> where not my answers, I not see ours questions
>
> I have free space on
>
> zorandi@EUnet.yu 30Mb
> nacomp@EUnet.yu 30Mb
> zorandi2002@yahoo.com 100Mb
> nikaca2000@yahoo.com 100Mb
>
> I not receive neither messages ours because are Blocked of telepathy
master
>

> But, I working and never desist
> If Somebody that commit Redirection my addresses of own site, Please.
>
> THIS WHOLE STORY IS OPENED AND PERMISSIVE FOR PUBLISH FOR EVERY WHO WISH
ON
> WHATEVER WAY.
> NO LIMIT, NOT CONTRACT
> Likewise, is PERMISSIVE every my email and www address.
>
> My self
> Zoran Dimitrijevic
>
>
> zorandi2002@yahoo.com
> nikaca2000@yahoo.com
> or
> ICQ
> 263-211-512
> or , but is email occasionally Blocked I can't send and receive
> zorandi@EUnet.yu
> nacom@EUnet.yu
>
> http://www30.brinkster.com/aferatelekom
> http://www30.brinkster.com/aferatelekom/Obrenovici.htm
> or download
> http://www30.brinkster.com/aferatelekom/Obrenovici.zip
>

350. I`m Sorry, I Have Rectification

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-21 06:15:18 UTC
From: Zoran Dimitrijevic <zorandi@EUnet.yu>
Message-ID: <cb64shjh1@news.eunet.yu>
Source record: 25382

Only
rec.radio.amateur.homebrew
and
uk.railway
work correct.
Thanks of lot users

> My email is full blocked, I can`t receive ours mail, else are empty
>
> Samps on I sent messages:
>
> alt.personals
> alt.personals.interracial
> alt.personals.misc.
> alt.personals.vancouver
> alt.usage.English
> news.answers
> rec.tadio.amateur
> rec.radio.amateur.antenna
> rec,radio.amateur.boatanchors
> rec.radio.amateur.digital.misc.
> rec.radio.amateur.dx
> rec.radio.amateur.equipment
> rec.radio.amateur.homebrew
> rec.radio.amateur.misc.
> rec.radio.amateur.policy
> rec.radio.amateur.space
> rec.radio.amateur.swap
> rec.radio.info
> uk.railway
> yu.eunet.oglasi
> yu.forum.politika
>
> where not my answers, I not see ours questions
>
> I have free space on
>
> zorandi@EUnet.yu 30Mb
> nacomp@EUnet.yu 30Mb
> zorandi2002@yahoo.com 100Mb
> nikaca2000@yahoo.com 100Mb
>
> I not receive neither messages ours because are Blocked of telepathy
master

>
> But, I working and never desist
> If Somebody that commit Redirection my addresses of own site, Please.
>
> THIS WHOLE STORY IS OPENED AND PERMISSIVE FOR PUBLISH FOR EVERY WHO WISH
ON
> WHATEVER WAY.
> NO LIMIT, NOT CONTRACT
> Likewise, is PERMISSIVE every my email and www address.
>
> My self
> Zoran Dimitrijevic
>
>
> zorandi2002@yahoo.com
> nikaca2000@yahoo.com
> or
> ICQ
> 263-211-512
> or , but is email occasionally Blocked I can't send and receive
> zorandi@EUnet.yu
> nacom@EUnet.yu
>
> http://www30.brinkster.com/aferatelekom
> http://www30.brinkster.com/aferatelekom/Obrenovici.htm
> or download
> http://www30.brinkster.com/aferatelekom/Obrenovici.zip
>

351. Re: Tektronix 497P 100 Hz-21 GHz spectrum analyzer

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-21 08:41:04 UTC
From: SioL <nospam@die-spammers.com>
Message-ID: <paxBc.5265$37.697870@news.siol.net>
Source record: 25383
Cross-posted to: misc.industry.electronics.marketplace,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

"John Miles" <jmiles@pop.removethistomailme.net> wrote in message
news:MPG.1b3f5935b1e240689896ca@news-central.giganews.com...
>
> I'm not sure what would cause random or non-standard power-up settings
> besides a flaky keyboard controller that doesn't respond to the CPU's
> first few accesses after power up. The 496 doesn't have the capability
> to store its settings in NVRAM like the 494 and later models, so it
> shouldn't be a case of corrupted memory. The EPROMs are checksummed, so
> if you don't receive any power-up error messages, they are OK.
>
> I suppose one worthwhile test would be to make *sure* that the UNCAL
> light is on for no good reason (as opposed to invalid startup settings).
> Power it on, rotate TIME/DIV back and forth leaving it in 5
> seconds/division (the slowest setting), and manually set the other
> controls for 1 MHz RBW and 100 MHz/division sweep with no video
> filtering. The UNCAL light should definitely not be on at that point.
> If it is, you can disregard it for the time being if everything else
> works right.
>
> I'll poke around in my 492 manual and see if anything leaps out at me.
>
> -- jm

I tried it, it all works fine or at least seems to, but the "Uncal" LED is on.

I'm reluctant to open it and see where this LED leads to check the logic.
If it goes to the microcontroller and the port is fried, it won't help me much
anyway. Besides, everything else works at this point. I hope its not an early
sign of something else going to hell later on.

Thanks for your help so far.

SioL

352. Re: FM BCB Rcvr. design...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-21 09:24:24 UTC
From: R J Carpenter <rcarpen@erols.com>
Message-ID: <40d6b747$0$3004$61fed72c@news.rcn.com>
Source record: 25384

"Michael Dunn" <president@whitehouse.gov> wrote in message
news:200620041721216995%president@whitehouse.gov...
> In article <40D50466.9070907@invalid.invalid>, Doug Smith W9WI
> <w9wi@invalid.invalid> wrote:
> > What is your reception goal for this receiver?
> >
> > - High fidelity?
> >
> > - High sensitivity?
> >
> > - Adjacent-channel rejection?
> >
> > - Overload tolerance?
>
>
> Pretty much all of the above. Cost is secondary. Though I do like
> simple elegance, and I'm not going to go as far as the SUPRX mentioned
> by Bob, though it must be a fine rcvr.
>
> Mark mentioned:
> >>could design not only AFC, but also automatic tuning of an RF
> >>preselector and perhaps even an antenna tuner, that would be tres
> cool.

All of my older FM tuners have a three-gang "bread slicer", A.K.A. variable
capacitor. It tunes (1) the LO, (2) mixer input, (3) RF stage input. Since
the OP wasn't interested in a synthesized LO, a multigang capacitor would
seem to make sense.

With some imagination, one could arrange a scheme so that the LO would lock
to
a synthesized signal every 200 kHz step. Thus one-knob tuning of multiple
stages, yet with synthesizer stability. Details are left as a student
exercise.

73 de bob w3otc

353. Re: Double gate FET

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-21 10:28:49 UTC
From: Bill Hennessy <elhen704@yahoo.com>
Message-ID: <40D6B861.8030806@yahoo.com>
Source record: 25385

Laura Halliday wrote:
> Bill Hennessy <elhen704@yahoo.com> wrote in message
news:<40d4dc88$0$13057$9a6e19ea@news.newshosting.com>...
>
>>Does anyone know where I can get a double gate fet like the old 40673?
>>I know Ocean State has it but it's kind of high $8.50, I know their are
>>others like the 3N201 and BF900. But can't seem to find them anyplace.
>>
>>Bill, N5NOB
>
>
> What sort of project did you have in mind? There
> is a reason they don't make 40673s any more, and I
> am always slightly suspicious when somebody is
> looking specifically for them. At the height of
> their popularity, ham projects used 40673 for all
> sorts of things. Now, about the only thing people
> still do with them is low-noise RF amplifiers
> (e.g. BF991).
>
> My supply of BF961/981s came from Cricklewood in London
> and Les Cyclades in Paris. Barend Hendriksen have them
> too.
>
> Laura Halliday VE7LDH "Que les nuages soient notre
> Grid: CN89mg pied a terre..."
> ICBM: 49 16.05 N 122 56.92 W - Hospital/Shafte

A regenerative receiver by useing one of the gates in the normal way.
And the other is used with a pot to controal the voltage and will affect
the regeneration. The FET is acting like a screen-grid tube or
replaceing the tube.

354. Re: FM BCB Rcvr. design...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-21 10:29:58 UTC
From: SioL <nospam@die-spammers.com>
Message-ID: <vMyBc.5274$37.699948@news.siol.net>
Source record: 25386

"R J Carpenter" <rcarpen@erols.com> wrote in message
news:40d6b747$0$3004$61fed72c@news.rcn.com...

> All of my older FM tuners have a three-gang "bread slicer", A.K.A. variable
> capacitor. It tunes (1) the LO, (2) mixer input, (3) RF stage input. Since
> the OP wasn't interested in a synthesized LO, a multigang capacitor would
> seem to make sense.
>
> With some imagination, one could arrange a scheme so that the LO would lock
> to
> a synthesized signal every 200 kHz step. Thus one-knob tuning of multiple
> stages, yet with synthesizer stability. Details are left as a student
> exercise.
>
> 73 de bob w3otc

You'd also probably get higher Q with air var. cap.
But everything else is more complicated with this approach

SioL

355. What you sens about this

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-21 10:45:57 UTC
From: Zoran Dimitrijevic <zorandi@EUnet.yu>
Message-ID: <cb6ee2$47d$1@news.eunet.yu>
Source record: 25387

I self are sent letter minister of justice that I have argument on 300 page
text, how is kill premier Dr. Zoran Djindjic and minister Ana Lind and
because, and who is head murder.
My state isn't commit about this.
And as thus I have argument how are manipulate in Telecom and Pillage
Townsman and who.
And I movement 3000 entry of Townsman for A Criminal Act in Telecom and
muggers on high level of state.
Everything be presented, very son, in my site:
http://www30.brinkster.com/aferatelekom
Regard
Zoran

356. Who you are sens about this

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-21 10:46:02 UTC
From: Zoran Dimitrijevic <zorandi@EUnet.yu>
Message-ID: <cb6ee3$47d$2@news.eunet.yu>
Source record: 25388

I self are sent letter minister of jostice that I have argument on 300 page
text, how is kill premier Dr. Zoran Djindjic and minister Ana Lind and
becouse, and who is head murder.
My state isnt commit about this, so that .

357. Low current crystal oscillator

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-21 11:52:49 UTC
From: Hans Summers <hans.summers@tudor.com>
Message-ID: <2jo0gjF136mruU1@uni-berlin.de>
Source record: 25389

Hello

I have built 2 very simple 2-chip frequency counters with 8 LED binary readout see http://www.hanssummers.com/radio/sfreq/index.htm . My Mk2 counter is extremely small (just 25 x 16 x 16mm) and consumes a low current of 5mA max.

The question relates to the 4.096MHz oscillator which uses the internal oscillator of the 74HC4060. Of the 5mA current consumption, 1.2mA is used by the LED's when max 7 are on at any one time. About 0.8mA by the diode-resistor gate logic, transistor switch, 74HC4040 and the voltage regulator. Fully 3mA is wasted on the 74HC4060 crystal oscillator + divider. It seems wrong to spend 60% of your current consumption on an oscillator, compared to less than 25% on the LED's.

In the pursuit of excellence in this design, I would like to cut the current consumption of the oscillator section. Does anyone know of a better arrangement that will cut current consumption? Increasing the series resistor wasn't the solution. I put a 100K variable in here in place of the original 2K2. Initially as the resistor was increased the current consumption fell, but at higher resistances the current consumption increased quite dramatically. The optimum was at close to 4K7.

73 Hans G0UPL
http://www.HansSummers.com

358. Re: Who you are sens about this

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-21 12:49:58 UTC
From: SioL <nospam@die-spammers.com>
Message-ID: <oWABc.5319$37.701943@news.siol.net>
Source record: 25390

"Zoran Dimitrijevic" <zorandi@EUnet.yu> wrote in message
news:cb6ee3$47d$2@news.eunet.yu...
> I self are sent letter minister of jostice that I have argument on 300 page
> text, how is kill premier Dr. Zoran Djindjic and minister Ana Lind and
> becouse, and who is head murder.
> My state isnt commit about this, so that .

How about learning some english first?

After you've done that learn a proper newsgroup to post this.

SioL

359. FA: Collins & Antique Bakelite knobs+more

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-21 13:25:32 UTC
From: Heytubeguy <heytubeguy@worldnet.att.net>
Message-ID: <glBBc.108632$Gx4.100145@bgtnsc04-news.ops.worldnet.att.net>
Source record: 25391

See at:

http://cgi6.ebay.com/ws/eBayISAPI.dll?ViewSellersOtherItems&userid=heytubeguy&completed=0&sort=3&since=-1&include=0&page=1&rows=25

73 heytubeguy

360. Re: Low current crystal oscillator

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-21 14:16:32 UTC
From: Michael Dunn <president@whitehouse.gov>
Message-ID: <210620041016328671%president@whitehouse.gov>
Source record: 25392

> regulator. Fully 3mA is wasted on the 74HC4060 crystal oscillator + divider.
> It seems wrong to spend 60% of your current consumption on an oscillator,
> compared to less than 25% on the LED's.

Try a plain 4060.

361. Re: Low current crystal oscillator

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-21 14:31:12 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cb6rfgodn1@titan.btinternet.com>
Source record: 25393

Each sub-circuit in an equipment should be considered seperately, on its own merits, in respect of minimisation of power consumption.

It is essential for the future of the human race that electronic design engineers are familiar with the basic principles involved. Energy consumption has to be paid for throughout life of the equipment. It's a part of the cost of ownwership.

At present much of the world's energy requirements come from oil, gas and coal. Ordinary food is the principal source of energy of course and is always in short supply. Oil is also used to make plastics for the packaging industries, etc.

World war has been in progress for many years about control of food supplies, the oil fields and pipelines. It is becoming daily more intense and building up towards Armageddon. Fundamentally it is a war involving the Multi-nationals, Wall Sreet Bankers and giant Insurance Companies, etc., completely beyond control of World Governments.

Sooner or later the World MUST concentrate on atomic energy. The sensible French already have 90% of their energy requirements provided by atomic power stations. The remainder by hydro-electric and tidal power. The Japanese, having no natural biological energy resources, are also quietly well on their way. Iranians, oil producers themselves, are busy building there own atomic power stations in anticipation of a World oil shortage, but their efforts are sabotaged by multi-national legal and political warfare about who gets the development, investment and construction contracts.

When the World is mainly on atomic energy, electronic circuit designers can feel free to enjoy themselves and exercise their unrestrained imaginations.

Optimistic Reg.

362. Re: JENNINGS VACUUM VARIABLES

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-21 14:37:39 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cb6rrj$47j$1@sparta.btinternet.com>
Source record: 25394

You would do much better if you stated capacitance pF and maximum working volts. If you don't know you shouldn't be selling them anyway.

363. Re: Low current crystal oscillator

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-21 15:01:14 UTC
From: Bill Janssen <billjNOTTHIS@ieee.org>
Message-ID: <_KCBc.3290$BX.1894@news01.roc.ny>
Source record: 25395

Hans Summers wrote:

>Hello
>
>I have built 2 very simple 2-chip frequency counters with 8 LED binary
>readout see http://www.hanssummers.com/radio/sfreq/index.htm . My Mk2
>counter is extremely small (just 25 x 16 x 16mm) and consumes a low current
>of 5mA max.
>
>The question relates to the 4.096MHz oscillator which uses the internal
>oscillator of the 74HC4060. Of the 5mA current consumption, 1.2mA is used by
>the LED's when max 7 are on at any one time. About 0.8mA by the
>diode-resistor gate logic, transistor switch, 74HC4040 and the voltage
>regulator. Fully 3mA is wasted on the 74HC4060 crystal oscillator + divider.
>It seems wrong to spend 60% of your current consumption on an oscillator,
>compared to less than 25% on the LED's.
>
>In the pursuit of excellence in this design, I would like to cut the current
>consumption of the oscillator section. Does anyone know of a better
>arrangement that will cut current consumption? Increasing the series
>resistor wasn't the solution. I put a 100K variable in here in place of the
>original 2K2. Initially as the resistor was increased the current
>consumption fell, but at higher resistances the current consumption
>increased quite dramatically. The optimum was at close to 4K7.
>
>73 Hans G0UPL
>http://www.HansSummers.com
>
>
>
>
>
Not familiar with the chips you are using but you should use the lowest
frequency oscillator possible.
Maybe try the 32 + KHz crystal

A lot of the current is used to charge and discharge internal capacity
so doing that less often helps.

Bill K7NOM

364. Re: Who you are sens about this

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-21 15:53:33 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <f21ed09lrc09vfucktg9p34gmhtttuhfj9@4ax.com>
Source record: 25396

On Mon, 21 Jun 2004 14:49:58 +0200, "SioL" <nospam@die-spammers.com>
wrote:

>"Zoran Dimitrijevic" <zorandi@EUnet.yu> wrote in message
news:cb6ee3$47d$2@news.eunet.yu...
>> I self are sent letter minister of jostice that I have argument on 300 page
>> text, how is kill premier Dr. Zoran Djindjic and minister Ana Lind and
>> becouse, and who is head murder.
>> My state isnt commit about this, so that .
>
>How about learning some english first?

Agreed!

>After you've done that learn a proper newsgroup to post this.

Or better still, don't!

--

"What is now proved was once only imagin'd." - William Blake, 1793.

365. Re: Low current crystal oscillator

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-21 15:58:35 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <aa1ed0lovh75dieotrvbksn5fr6g1aokoi@4ax.com>
Source record: 25397

On Mon, 21 Jun 2004 14:31:12 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>Sooner or later the World MUST concentrate on atomic energy.

Absolutely right, Reg. Even good old fission if necessary. Yeah, it's
dirty but so what? Outer space has a limitless capacity for our
radioactive garbage. Instead of encasing it in concrete and burying
it, we should be just firing away in rockets. Way to go!
--

"What is now proved was once only imagin'd." - William Blake, 1793.

366. Re: Low current crystal oscillator

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-21 16:23:39 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10de2s25uugmi29@corp.supernews.com>
Source record: 25398

Hans Summers wrote:
> Hello
>
> I have built 2 very simple 2-chip frequency counters with 8 LED binary
> readout see http://www.hanssummers.com/radio/sfreq/index.htm . My Mk2
> counter is extremely small (just 25 x 16 x 16mm) and consumes a low current
> of 5mA max.
>
> The question relates to the 4.096MHz oscillator which uses the internal
> oscillator of the 74HC4060. Of the 5mA current consumption, 1.2mA is used by
> the LED's when max 7 are on at any one time. About 0.8mA by the
> diode-resistor gate logic, transistor switch, 74HC4040 and the voltage
> regulator. Fully 3mA is wasted on the 74HC4060 crystal oscillator + divider.
> It seems wrong to spend 60% of your current consumption on an oscillator,
> compared to less than 25% on the LED's.
>
> In the pursuit of excellence in this design, I would like to cut the current
> consumption of the oscillator section. Does anyone know of a better
> arrangement that will cut current consumption? Increasing the series
> resistor wasn't the solution. I put a 100K variable in here in place of the
> original 2K2. Initially as the resistor was increased the current
> consumption fell, but at higher resistances the current consumption
> increased quite dramatically. The optimum was at close to 4K7.
>
> 73 Hans G0UPL
> http://www.HansSummers.com
>
>
>

On the other hand, you can always console yourself with the fact that
60% of your power budget is going toward making the thing accurate...

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

367. Re: Low current crystal oscillator

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-21 16:25:49 UTC
From: Hans Summers <hans.summers@tudor.com>
Message-ID: <2joggeF13vivsU1@uni-berlin.de>
Source record: 25399

"Bill Janssen" <billjNOTTHIS@ieee.org> wrote in message
news:_KCBc.3290$BX.1894@news01.roc.ny...
> Hans Summers wrote:
>
[snip]
> >
> >
> >
> Not familiar with the chips you are using but you should use the lowest
> frequency oscillator possible.
> Maybe try the 32 + KHz crystal

Bill, I am aware that CMOS current consumption is dependant on operating frequency. However the simplicity of the design demands a clock frequency which is a power-of-two multiple of 1KHz. Otherwise the counting range would have to be other than 0 to 99.5KHz. This counting range is perfect for amateur bands, the offset off the band edge or next multiples of 100KHz.

In any case the counting frequency of the 74HC4040 in my tests was very similar to the 74HC4060 timebase since I was using an 80m VFO. But the current consumption of the 74HC4040 was negligble. Therefore there must be something about the oscillator configuration which is causing the high current consumption.

That's why I'm wondering if there are other, more power-efficient ways of making an oscillator. Bear in mind that a 32768Hz watch crystal is only 125 times slower than my 4096KHz crystal. Assuming proportionality that's about 25uA. Isn't this rather large for a watch? What sort of capacity are we looking at in a watch battery... 25mAh or less? In this case a watch battery would only last 6 weeks, and that's just powering the oscillator on its own not even worrying about the watch hands.

73 Hans G0UPL
http://www.HansSummers.com

368. Re: Low current crystal oscillator

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-21 16:31:08 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cb72gb$9e4$1@hercules.btinternet.com>
Source record: 25400

The problems of how to get rid of relatively minute quantities of mildly radioactive waste materials have been exaggerated by the oil conglomerates and the other multi-national companies in the control of world governments. They do it for obvious reasons via the international media which they also own and control. Whoever owns and controls the Internet will ruthlessly rule the Earth. Only the Chinese can prevent it.

Reg.

==========

"Paul Burridge" wrote -
>
> Absolutely right, Reg. Even good old fission if necessary. Yeah, it's
> dirty but so what? Outer space has a limitless capacity for our
> radioactive garbage. Instead of encasing it in concrete and burying
> it, we should be just firing away in rockets. Way to go!

369. Re: Low current crystal oscillator

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-21 16:34:19 UTC
From: Hans Summers <hans.summers@tudor.com>
Message-ID: <2joh0bF13rifoU1@uni-berlin.de>
Source record: 25401

>
> Sooner or later the World MUST concentrate on atomic energy. The sensible
> French already have 90% of their energy requirements provided by atomic
> power stations. The remainder by hydro-electric and tidal power. The
> Japanese, having no natural biological energy resources, are also quietly
> well on their way. Iranians, oil producers themselves, are busy building
> there own atomic power stations in anticipation of a World oil shortage,
but
> their efforts are sabotaged by multi-national legal and political warfare
> about who gets the development, investment and construction contracts.

What about renewable sources providing all of it, and sensibly conserving energy with energy efficient appliances, homes, transport etc so that less of it is required in the first place? Nuclear fission of current fuels (Uranium) is in any case only a postponement of the problem since eventually Uranium supplies will be burnt up just the same as fossil fuels.

The real costs of the nuclear alternatives have never been properly considered, since nuclear programs have always been subsidised by governments interested in the defence (or offence) applications of the technology and byproducts. Once the full lifecycle cost of the power stations is taken into account they become rather uneconomic in comparison to other forms of energy such as renewable sources. The latter would have become much much cheaper long ago had they received the same degree of subsidised research and development as nuclear.

> When the World is mainly on atomic energy, electronic circuit designers
can
> feel free to enjoy themselves and exercise their unrestrained
imaginations.

At the moment my imagination concentrates itself on the unimaginably tiny and simple frequency counter with tiny current consumption. Forget nuclear, this thing could even run off solar power recharged batteries ;-)

So please, indulge my fancy for an even lower current frequency counter containing just 2 IC's,, and tell me if there's a way!

73 Hans G0UPL
http://www.HansSummers.com

370. Re: Low current crystal oscillator

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-21 16:35:29 UTC
From: Hans Summers <hans.summers@tudor.com>
Message-ID: <2joh2hF13627eU1@uni-berlin.de>
Source record: 25402

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:cb72gb$9e4$1@hercules.btinternet.com...
>
> The problems of how to get rid of relatively minute quantities of mildly
> radioactive waste materials have been exaggerated by the oil conglomerates
> and the other multi-national companies in the control of world
governments.
> They do it for obvious reasons via the international media which they also
> own and control. Whoever owns and controls the Internet will ruthlessly
> rule the Earth. Only the Chinese can prevent it.

To get rid of even a relatively minute quantity of radioactive material into
space requires the expenditure of rather huge amounts of fuels. Fossil fuels
that is. Ooops

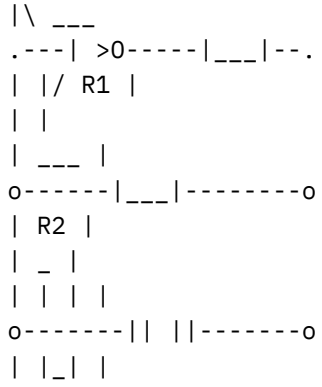
371. Re: Low current crystal oscillator

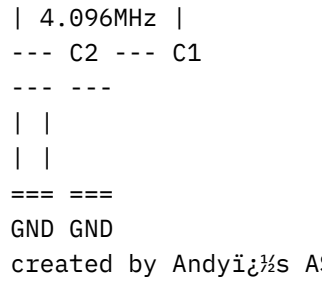
Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-21 18:17:35 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10de9hn97cc9h23@corp.supernews.com>
Source record: 25403

Hans Summers wrote:

> Hello
>
> I have built 2 very simple 2-chip frequency counters with 8 LED binary
> readout see http://www.hanssummers.com/radio/sfreq/index.htm . My Mk2
> counter is extremely small (just 25 x 16 x 16mm) and consumes a low current
> of 5mA max.
>
> The question relates to the 4.096MHz oscillator which uses the internal
> oscillator of the 74HC4060. Of the 5mA current consumption, 1.2mA is used by
> the LED's when max 7 are on at any one time. About 0.8mA by the
> diode-resistor gate logic, transistor switch, 74HC4040 and the voltage
> regulator. Fully 3mA is wasted on the 74HC4060 crystal oscillator + divider.
> It seems wrong to spend 60% of your current consumption on an oscillator,
> compared to less than 25% on the LED's.
>
> In the pursuit of excellence in this design, I would like to cut the current
> consumption of the oscillator section. Does anyone know of a better
> arrangement that will cut current consumption? Increasing the series
> resistor wasn't the solution. I put a 100K variable in here in place of the
> original 2K2. Initially as the resistor was increased the current
> consumption fell, but at higher resistances the current consumption
> increased quite dramatically. The optimum was at close to 4K7.
>
> 73 Hans G0UPL
> http://www.HansSummers.com
>
>
>

Here's a suggestion. I've never tried this, so YMMV. You're using a
circuit that looks like:





created by Andyï¿½s ASCII-Circuit v1.24.140803 Beta www.tech-chat.de

Yes?

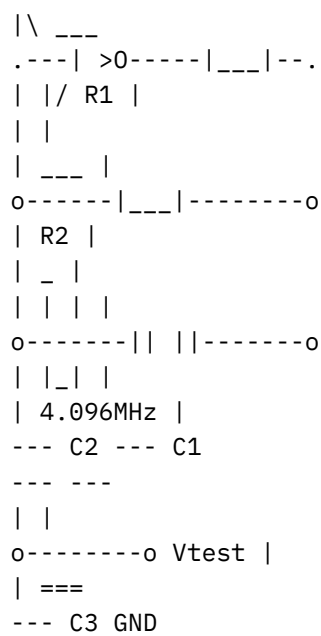
And you've maximized R2 and dinked with the value of R1, and the best you can get is R1 = 4.7kOhm?

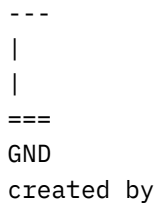
Probably what is happening is that you're fighting two contradictory effects in the circuit: Effect one is that the inverter wants to have a low-impedance output, so a low value of R1 will pull a lot of current from the inverter output. Effect two is that a CMOS inverter is designed assuming that it will be turned on hard; if it isn't then the complementary pair of FETs just conduct current from the VSS rail to VDD.

I think that when you adjust R1 higher you're loading the output less, but you're also supplying less voltage to the input. Your 4.7kOhm value saves you output current, but drops the input voltage enough so that you start seeing more input current.

Why don't you try playing with your feedback a little bit? I'm assuming that you have C1 = C2. If you decrease C2 while increasing C1 so that the series combination of C2 and C1 stays the same the voltage at the inverter input should be stepped up. Depending on about a gazillion factors this may reduce your current consumption.

I would try the circuit below:





Make sure R2 is as large as you can get away with and make C3 about ten times bigger than the crystal's load capacitance, and leave C2 at about the crystal's load capacitance. Now measure the voltage at Vtest (please have an O-Scope!). Because you know C2 and C3 you can calculate the voltage at the inverter input and keep it to 5Vp-p as you play with C1 and R1.

Now play with C1 and R1 and see if you can (a) reduce power even more, (b) keep a good strong signal at the inverter input and (c) keep your desired frequency stability. Increasing C1 should give you more voltage at C2, increasing R1 should give you less. There should be a point where you get good performance at less current than you're getting now.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

372. Re: FM BCB Rcvr. design...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-21 18:18:42 UTC
From: Michael Dunn <president@whitehouse.gov>
Message-ID: <2106200414184229 30%president@whitehouse.gov>
Source record: 25404

In article <MPG.1b3fc1c22eb1d9379896cc@news-central.giganews.com>, John Miles <jmiles@pop.removethistomailme.net> wrote:

> > Speaking of quadrature demods, wouldn't best performance be had by
> > using a 23.3ns (90deg@10.7MHz) wideband delay instead of a single or
> > double-tuned LC. I just found one with 30MHz BW...
>
> Probably not, unless there's something I'm missing. You don't want a
> wideband circuit here -- the quadrature detector takes advantage of
> phase shift through the passband. Basically it uses a mixer to compare
> a signal with a phase-shifted version of itself, with the output being
> proportional to the actual phase difference. With a single-tuned
> circuit, the 3 dB point corresponds to 45 degrees of phase shift, and
> that's where you center the quadrature coil.

Phase shift = delay for a given frequency of course. 90deg at 10.7MHz is 23.3ns. Being wideband means the delay and amplitude change over a 150kHz BW are MUCH less than with a single LC. Seems to me that would give the best performance and lowest distortion...

Michael

373. Re: Low current crystal oscillator

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-21 18:58:56 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10debv762gflb7b@corp.supernews.com>
Source record: 25405

```
Tim Wescott wrote:
> Hans Summers wrote:
>
>> Hello
>>
>> I have built 2 very simple 2-chip frequency counters with 8 LED binary
>> readout see http://www.hanssummers.com/radio/sfreq/index.htm . My Mk2
>> counter is extremely small (just 25 x 16 x 16mm) and consumes a low
>> current
>> of 5mA max.
>>
>> The question relates to the 4.096MHz oscillator which uses the internal
>> oscillator of the 74HC4060. Of the 5mA current consumption, 1.2mA is
>> used by
>> the LED's when max 7 are on at any one time. About 0.8mA by the
>> diode-resistor gate logic, transistor switch, 74HC4040 and the voltage
>> regulator. Fully 3mA is wasted on the 74HC4060 crystal oscillator +
>> divider.
>> It seems wrong to spend 60% of your current consumption on an oscillator,
>> compared to less than 25% on the LED's.
>>
>> In the pursuit of excellence in this design, I would like to cut the
>> current
>> consumption of the oscillator section. Does anyone know of a better
>> arrangement that will cut current consumption? Increasing the series
>> resistor wasn't the solution. I put a 100K variable in here in place
>> of the
>> original 2K2. Initially as the resistor was increased the current
>> consumption fell, but at higher resistances the current consumption
>> increased quite dramatically. The optimum was at close to 4K7.
>>
>> 73 Hans G0UPL
>> http://www.HansSummers.com
>>
>>
>>
>
> Here's a suggestion. I've never tried this, so YMMV. You're using a
> circuit that looks like:
>
> |\ ___
> .---| >O-----|___|--.
> | |/ R1 |
> | |
```

```
> | ___ |
> o------|___|--------o
> | R2 |
> | _ |
> | | | |
> o-------|| ||-------o
> | |_| |
> | 4.096MHz |
> --- C2 --- C1
> --- ---
> | |
> | |
> === ===
> GND GND
> created by Andyï¿½s ASCII-Circuit v1.24.140803 Beta www.tech-chat.de
>
> Yes?
>
> And you've maximized R2 and dinked with the value of R1, and the best
> you can get is R1 = 4.7kOhm?
>
> Probably what is happening is that you're fighting two contradictory
> effects in the circuit: Effect one is that the inverter wants to have a
> low-impedance output, so a low value of R1 will pull a lot of current
> from the inverter output. Effect two is that a CMOS inverter is
> designed assuming that it will be turned on hard; if it isn't then the
> complementary pair of FETs just conduct current from the VSS rail to VDD.
>
> I think that when you adjust R1 higher you're loading the output less,
> but you're also supplying less voltage to the input. Your 4.7kOhm value
> saves you output current, but drops the input voltage enough so that you
> start seeing more input current.
>
> Why don't you try playing with your feedback a little bit? I'm assuming
> that you have C1 = C2. If you decrease C2 while increasing C1 so that
> the series combination of C2 and C1 stays the same the voltage at the
> inverter input should be stepped up. Depending on about a gazillion
> factors this may reduce your current consumption.
>
> I would try the circuit below:
>
>
> |\ ___
> .---| >O-----|___|--.
> | |/ R1 |
> | |
> | ___ |
> o------|___|--------o
> | R2 |
> | _ |
```

> | | | |
> o-------|| ||-------o
> | |_| |
> | 4.096MHz |
> --- C2 --- C1
> --- ---
> | |
> o--------o Vtest |
> | ===
> --- C3 GND
> ---
> |
> |
> ===
> GND
> created by Andyï¿½s ASCII-Circuit v1.24.140803 Beta www.tech-chat.de
>
> Make sure R2 is as large as you can get away with and make C3 about ten
> times bigger than the crystal's load capacitance, and leave C2 at about
> the crystal's load capacitance. Now measure the voltage at Vtest
> (please have an O-Scope!). Because you know C2 and C3 you can calculate
> the voltage at the inverter input and keep it to 5Vp-p as you play with
> C1 and R1.
>
> Now play with C1 and R1 and see if you can (a) reduce power even more,
> (b) keep a good strong signal at the inverter input and (c) keep your
> desired frequency stability. Increasing C1 should give you more voltage
> at C2, increasing R1 should give you less. There should be a point
> where you get good performance at less current than you're getting now.
>

I just tried this with a 74HC04 (no HC4040s, no UHC04s more's the pity).
Best current draw was 1.6mA at 4MHz was with 4.7kOhm and C1 = C2 =
47pF. Then I stuck in a 455kHz ceramic resonator that I have lying
around and Bammo -- 750uA.

So maybe adjusting the frequency lower would be a good thing? Digi-Key
has 32kHz watch crystals.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

374. Re: I`m Sorry, I Have Rectification

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-21 19:33:36 UTC
From: Eamon Skelton <Xnospam@oceanfree.net>
Message-ID: <gppjq1-jb6.ln1@skelton.news.cis.dfn.ed>
Source record: 25406

Zoran Dimitrijevic wrote:

I`m Sorry, I Have Rectification

At last! Something related to homebrew radio.

73, Ed. EI9GQ.

--
Remove 'X' to reply by E-mail.
Linux 2.6.7

375. Request repost..... Still Looking

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-21 20:32:11 UTC
From: MM News <dodgem37@netspace.net.au>
Message-ID: <cb7gkb$28cr$1@otis.netspace.net.au>
Source record: 25407
Cross-posted to: alabama.birmingham.radio.amateur,aus.radio.amateur.misc,rec.radio.amateur,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.space,rec.radio.amateur.swap

I am chasing up some accessories for a Kenwood TM-741a, I'm after the DTMF Microphone (MC-45DM) and the 6m Module (UT-50S), the 6m module is also used in other multiband models. I am happy to buy accessories that may need a bit of repair....
Thanks to all that have helped me recently in my hunt for parts :-)

Regards - Tony Eagling Vk7YBG

Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.708 / Virus Database: 464 - Release Date: 18/06/2004

376. Re: I`m Sorry, I Have Rectification

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-21 22:12:13 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <72ned0telajq07gi2hq5c8bqic118thcqc@4ax.com>
Source record: 25408

On Mon, 21 Jun 2004 19:33:36 +0000, Eamon Skelton
<Xnospam@oceanfree.net> wrote:

>Zoran Dimitrijevic wrote:
>
>I`m Sorry, I Have Rectification
>
>At last! Something related to homebrew radio.

Indeed. I wonder if he's using germanium or silicon.
--

"What is now proved was once only imagin'd." - William Blake, 1793.

377. Re: Low current crystal oscillator

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-21 22:13:36 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <u7ned05d1of0eb7mbgpods4ui9esks4p5u@4ax.com>
Source record: 25409

On Mon, 21 Jun 2004 16:31:08 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>
>The problems of how to get rid of relatively minute quantities of mildly
>radioactive waste materials have been exaggerated by the oil conglomerates
>and the other multi-national companies in the control of world governments.
>They do it for obvious reasons via the international media which they also
>own and control. Whoever owns and controls the Internet will ruthlessly
>rule the Earth. Only the Chinese can prevent it.

God help us if the Chinese take over in 20 years' time.
But I was serious, Reg. There's nothing wrong with good ol' fashioned
fission. Just blast the leftover crap into space and have done with
it. It's lousy with radioactive debris anyway and the sun can swallow
everything we throw at it.
--

"What is now proved was once only imagin'd." - William Blake, 1793.

378. Re: Motorola power supply

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-21 23:58:22 UTC
From: ehsjr@bellatlantic.net
Message-ID: <yCKBc.15248$U.4663@nwrdny02.gnilink.net>
Source record: 25410

G.Beat wrote:

>"Alfred Lorona" <w6wqc@dslextreme.com> wrote in message
>news:2jco1tFvg1d0U1@uni-berlin.de...
>
>
>>Does anybody know what the output DC current is on a Motorola HPN3000A
>>base
>>station power supply? DC voltage measures 15 VDC.
>>
>>The pass transistors are two M9639 transistors in TO-3 case. I have not
>>been
>>able to find a data sheet on these guys. Anybody have any info on them?
>>
>>Thanks. AL
>>
>>
>>
>
>Here are a number of useful spec sheets
>http://www.kbt-dc-supplies.com/specs.php
>
>Standard Linear supply, you should be able to find an adjustment
>to drop the voltage to 13.8 VDC (under load)
>
>2N3771 and 2N3055 are used extensively (pass transistors),
>I have used the 2N3772 in supplies as replacement.
>
>I do not remember what the Motorola used for a voltage regulator
>
>w9gb
>
>
>
>
The 2N3772 is a good chouce for replacement over a 2N3771 or 2N3055.
It has a higher current and higher dissipation spec. Another, even higher
rated transistor is a 2N5886.

379. Re: Motorola power supply

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-22 00:24:16 UTC
From: wb4mleAT@surfbestDOT.net
Message-ID: <fdued0hiqe0bc1190ulhbob1vpvm0090s4@4ax.com>
Source record: 25412

>Does anybody know what the output DC current is on a Motorola HPN3000A base
>station power supply? DC voltage measures 15 VDC.
>
>The pass transistors are two M9639 transistors in TO-3 case. I have not been
>able to find a data sheet on these guys. Anybody have any info on them?

Sounds similar to the HPN1003A Motorola supply. Same pass transistors
and voltage. Rated 25 amps out. The output voltage regulator is a 14
volt fixed zener. A 13 volt zener will give 14.2 volts out if it is
the same essential supply as the MITREK. Transformer is part #
25D82863. HTH 73 de WB4MLE

--
Eddie Seymour,WB4MLE
Delete the capital letters:
wb4mleAT@surfbestDOT.net

380. Re: Low current crystal oscillator

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-22 00:24:23 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10dev1che6ucqc4@corp.supernews.com>
Source record: 25411

Hans Summers wrote:

> Hello
>
> I have built 2 very simple 2-chip frequency counters with 8 LED binary
> readout see http://www.hanssummers.com/radio/sfreq/index.htm . My Mk2
> counter is extremely small (just 25 x 16 x 16mm) and consumes a low current
> of 5mA max.
>
> The question relates to the 4.096MHz oscillator which uses the internal
> oscillator of the 74HC4060. Of the 5mA current consumption, 1.2mA is used by
> the LED's when max 7 are on at any one time. About 0.8mA by the
> diode-resistor gate logic, transistor switch, 74HC4040 and the voltage
> regulator. Fully 3mA is wasted on the 74HC4060 crystal oscillator + divider.
> It seems wrong to spend 60% of your current consumption on an oscillator,
> compared to less than 25% on the LED's.
>
> In the pursuit of excellence in this design, I would like to cut the current
> consumption of the oscillator section. Does anyone know of a better
> arrangement that will cut current consumption? Increasing the series
> resistor wasn't the solution. I put a 100K variable in here in place of the
> original 2K2. Initially as the resistor was increased the current
> consumption fell, but at higher resistances the current consumption
> increased quite dramatically. The optimum was at close to 4K7.
>
> 73 Hans G0UPL
> http://www.HansSummers.com
>
>
>
A 4060, using National's recommended circuit (from an '80 databook) and
a 32768Hz watch crystal, pulls 32 microamp -- and like I said before,
Digi-Key has 32000Hz crystals in stock, so there's your 1kHz reference.

Now if someone would explain why I bothered to prototype this...

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

381. Re: OCXO module Spec's and Pinouts?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-22 01:05:50 UTC
From: Jim Adney <jadney@vwtype3.org>
Message-ID: <l5ocd09bsn024bgd91i7mnkg0r2c0cp4j3@4ax.com>
Source record: 25413

On Sun, 20 Jun 2004 15:25:51 -0400 "Leland C. Scott" <kc8ldo@arrl.net>
wrote:

>Does anybody have the specifications and pinouts for the following
>oscillator modules?
>
>Ovenaire OSC 48-11C Frequency 3.000 MHz
>
>Ovenaire-Audio-Carpenter OSC 91-21 Frerquency 44.736 MHz

If you don't find that model on their web site, I've had good luck
just calling them. They've emailed me the specs and pinouts of OCXOs
I've picked up elsewhere.

-

Jim Adney jadney@vwtype3.org
Madison, WI 53711 USA
---

382. Free: Seattle area; QST and old microwave and pulse gens

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-22 04:22:07 UTC
From: k7itm@aol.com
Message-ID: <3200347.0406212022.19304f11@posting.google.com>
Source record: 25414
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew

Hi all. I'm doing some serious cleaning. Maybe someone in the Seattle/Everett area would like to pick up any/all of the following:

QST. Feb. 1971 through July 1996, missing Feb, Mar, Apr, Sept 1973 and May 1991.

TS-592/UPM-15 pulse generator. Vacuum tube here. About 45Hz to 10kHz PRF, makes double pulsed with adjustable widths, delay, ... This may be valuable more for the power transformer and the 829 output tube. Last I had it on, it actually did work.

Systron-Donner model 108 solid state pusle generator. Has orig. printed manual. Needs some work in the output stage--should be enough info, incl. schematics, in the manual for a good tech to do this. I could, just don't have time I want to spend on it. Rep rate 10pps to 10Mpps internal, or ext trig to 0pps. Can generate a single pulse, or gated from ext input. 50 ohm output: 0.2V to 50V into 50 ohms. That's 50 watts during the pulse.

TS-403B/U RF generator. Klystron-based generator, 1.8GHz to 4.0GHz. This is the same as an HP something or other...I have a photocopy of the HP manual that will go with it, but couldn't lay my hands on it just now. It oscillates, but I'm sure it needs adjustment per the manual of the repeller voltage tracking vs frequency.

Cross my palm with enough greenbacks and I might ship one of these, but it would not be cheap.

Cheers,
Tom

383. Re: Low current crystal oscillator

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-22 07:19:41 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <drkfd05a20vtqqu25un38visibh3n7rb95@4ax.com>
Source record: 25415

On Mon, 21 Jun 2004 23:13:36 +0100, Paul Burridge
<pb@notthisbit.osiris1.co.uk> wrote:

>God help us if the Chinese take over in 20 years' time.
>But I was serious, Reg. There's nothing wrong with good ol' fashioned
>fission. Just blast the leftover crap into space and have done with
>it. It's lousy with radioactive debris anyway and the sun can swallow
>everything we throw at it.

There are only two small problems with this approach, since first you have to reach the 11.2 km/s escape velocity to escape the earth. The Saturn V moon rocket was capable of delivering about 40 tons to escape velocity.

With this velocity, you just end up in an orbit similar to the Earth's orbit. In fact the Apollo 10 (or 12) third stage went into solar orbit, but a year or two ago, it was captured by the Moon and Earth and now it orbits the Earth for a year or two, before escaping back into the solar orbit. With some bad luck, this stage might have hit the Earth and imagine that it had contained 40 tons of highly radioactive waste, which would spread into the atmosphere...

Thus, in order to avoid the risk of collisions with the earth in the future, an additional rocket burn is required in the solar orbit to prevent the orbit from intersecting with the orbit of the Earth. Thus reducing the available payload.

If you want to drop something into the sun, you first must kill nearly all of the 30 km/s orbital motion of the Earth. This would require a huge amount of fuel and practically nothing would end up into the Sun.

It is in fact much easier to escape the solar system, since only about 43 km/s is required or 13 km/s in addition to the Earth's orbital velocity. With Saturn V, maybe 500 kg would reach the solar escape velocity directly.

Using Jupiter as a slingshot (as with Pioneer 11&12 and Voyager 1&2) maybe a few tons could reach the solar escape velocity.

Unfortunately Saturn V does not exist any more and the Shuttle and the Proton are toys compared to Saturn V. Any launch failure would also be quite nasty with a lot of nuclear waste on board.

Paul OH3LWR

384. For magnet lovers...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-22 08:21:58 UTC
From: Greysky <greyskynospam@sbcglobal.net>
Message-ID: <G_RBc.3475$Lu3.2606@newssvr25.news.prodigy.com>
Source record: 25416
Cross-posted to: sci.electronics.design,sci.electronics.components,rec.radio.amateur.homebrew

ever since I was a child, magnets have held a fascination for me. I've been collecting them ever since. It used to be that you could always scrounge loudspeakers for Alnico magnets. Then when the newer ceramic magnets began to be incorporated into loudspeakers, it became a challenge to remove them from their enclosures without breaking them. Now, I have to admit, I am having a ball collecting the new 'super magnets' - like the ones inside hard drives. There are also cool cylindrical magnets that you can get from inside the heads of VHS machines. My question is does anyone know of other sources either for Neodymium 'duper magnets', or strong ceramic magnets that I may be missing out on? Magnets like these come closest to being perpetual motion machines we have yet to make, and I'd hate to have some just wind up into the trash because I didn't know they were there :-)

Thanks.!

385. Re: I`m Sorry, I Have Rectification

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-22 09:05:08 UTC
From: Zoran Dimitrijevic <zorandi@EUnet.yu>
Message-ID: <cb8sq7$2je$3@news.eunet.yu>
Source record: 25417

Sorry,
Everything what I learn in my school is wrong, but I'm Fighter.

My English, my "germanium or silicon" etc. I self learn because is specious
this.

And ones, Sorry for my bad English since in schools of my country we learn
wrong last
100 years

Regard

"Paul Burridge" <pb@notthisbit.osiris1.co.uk> wrote in message
news:72ned0telajq07gi2hq5c8bqic118thcqc@4ax.com...
> On Mon, 21 Jun 2004 19:33:36 +0000, Eamon Skelton
> <Xnospam@oceanfree.net> wrote:
>
> >Zoran Dimitrijevic wrote:
> >
> >I`m Sorry, I Have Rectification
> >
> >At last! Something related to homebrew radio.
>
> Indeed. I wonder if he's using germanium or silicon.
> --
>
> "What is now proved was once only imagin'd." - William Blake, 1793.

386. Re: Low current crystal oscillator

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-22 09:16:49 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <b2ufd09puohrks6ci5g7ubgtkqe0ljsk7c@4ax.com>
Source record: 25418

On Tue, 22 Jun 2004 10:19:41 +0300, Paul Keinanen <keinanen@sci.fi>
wrote:

>If you want to drop something into the sun, you first must kill nearly
>all of the 30 km/s orbital motion of the Earth. This would require a
>huge amount of fuel and practically nothing would end up into the Sun.

Okay, well what about dumping it on the moon? Let's face it: there's
not a lot of other suitable uses for this redundant body - other than
providing tidal flows on Earth, of course. I guess you'd get some
complaints from these idiots who've 'bought plots of land' on the
moon, but they're never going to get to build on it in their lifetimes
so WGAS?
--

"What is now proved was once only imagin'd." - William Blake, 1793.

387. Re: Low current crystal oscillator

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-22 09:31:00 UTC
From: Hans Summers <hans.summers@tudor.com>
Message-ID: <2jqcilF13nfb3U1@uni-berlin.de>
Source record: 25419

"Tim Wescott" <tim@wescottnospamdesign.com> wrote in message
news:10dev1che6ucqc4@corp.supernews.com...
> Hans Summers wrote:
>
> A 4060, using National's recommended circuit (from an '80 databook) and
> a 32768Hz watch crystal, pulls 32 microamp -- and like I said before,
> Digi-Key has 32000Hz crystals in stock, so there's your 1kHz reference.

Many thanks Tim. I didn't realise 32KHz crystals were available. The usual 32768 wouldn't give the right timing but 32KHz is perfect. You actually prototyped this and measured the current? Did this use an old 4060 or a 74HC4060? What's the difference betweem families in terms of current consumption? Also, how do these families compare to things like 74AC, 74ACT, 74HCT? I know the T means TTL-compatible levels rather than the old CMOS family compatible levels, but is the current consumption different too?

What exact circuit is in your '80 databook? I just had a look at various datasheets from different manufacturers, and all seem to have the same configuration. The national datasheet for the 4060 shows values of 15M and 330K for the resistors to suit a watch crystal http://cache.national.com/ds/CD/CD4020BC.pdf . I also found this 74HC4060 datasheet for the ON Semiconductor version. It includes an interesting treatment of the calculation of the resistor values, see http://www.farnell.com/datasheets/42247.pdf .

Loads of questions I know. But this is fantastic as it will enable me to reduce the current consumption of the thing to under 1.5mA. I hope I'm right in thinking that by replacing the LED switching transistor with a FET, I'll also save some current consumption because of eliminating the base-emitter current, but I'm not a FET expert.

Another nice thing is the 32KHz crystals are physically tiny: 6mm long and 2mm diameter. This means if I use SMD IC's I can make a next generation counter a fraction the size of the current one which is already miniature.
One problem remains, which is getting hold of a 32KHz crystal. I have never bought anything from Digikey. The part I need is XC972-ND and is priced (UK pounds) £0.47. However I notice that there is a £10 handling fee and £12 shipping! The total order cost would be £22.47, for one simple crystal. That's about US $41! Therefore does anyone in rec.radio.amateur.homebrew reside in the US, order frequently or in the near future from Digikey, and wouldn't mind adding one of those to their order and popping it in an envelope to me - I'll pay all costs of course as long as you don't charge me £10 handling ;-)

73 Hans G0UPL
http://www.HansSummers.com

388. Re: For magnet lovers...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-22 11:07:27 UTC
From: Jan Panteltje <pNaonStpealmtje@yahoo.com>
Message-ID: <202b1564ec5508b648c026bbbf9b8ad4@news.teranews.com>
Source record: 25420
Cross-posted to: sci.electronics.design,sci.electronics.components,rec.radio.amateur.homebrew

On a sunny day (Tue, 22 Jun 2004 08:21:58 GMT) it happened "Greysky"
<greyskynospam@sbcglobal.net> wrote in
<G_RBc.3475$Lu3.2606@newssvr25.news.prodigy.com>:

>ever since I was a child, magnets have held a fascination for me. I've been
>collecting them ever since. It used to be that you could always scrounge
>loudspeakers for Alnico magnets. Then when the newer ceramic magnets began
>to be incorporated into loudspeakers, it became a challenge to remove them
>from their enclosures without breaking them. Now, I have to admit, I am
>having a ball collecting the new 'super magnets' - like the ones inside hard
>drives. There are also cool cylindrical magnets that you can get from inside
>the heads of VHS machines. My question is does anyone know of other sources
>either for Neodymium 'duper magnets', or strong ceramic magnets that I may
>be missing out on? Magnets like these come closest to being perpetual motion
>machines we have yet to make, and I'd hate to have some just wind up into
>the trash because I didn't know they were there :-)
>
>Thanks.!
There is a big magnetic iron core if you dig deep enough.
There are stars with an extremly strong magnetic field,
very very strong.
We need a composite (non metal) spaceship.
hehe

389. Re: For magnet lovers...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-22 12:12:37 UTC
From: Boris Mohar <borism_-void-_@sympatico.ca>
Message-ID: <6h8gd0la8el0m4m5nl7haao3oans6oj2r2@4ax.com>
Source record: 25421
Cross-posted to: sci.electronics.design,sci.electronics.components,rec.radio.amateur.homebrew

On Tue, 22 Jun 2004 08:21:58 GMT, "Greysky" <greyskynospam@sbcglobal.net>
wrote:

>ever since I was a child, magnets have held a fascination for me. I've been
>collecting them ever since. It used to be that you could always scrounge

Take apart a hard drive. There is a pail of magnets in the head positioning
servo. They are very powerful and will pinch your fingers if yo are not
careful.

Regards,

Boris Mohar

Got Knock? - see:
Viatrack Printed Circuit Designs http://www3.sympatico.ca/borism/

390. Re: LSB problems with IC706MKII

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-22 12:50:15 UTC
From: frencharepoo@hotmail.com
Message-ID: <cb99u7ubm1@newsg1.svr.pol.co.uk>
Source record: 25422

[No readable article body recovered]

391. Re: LSB problems with IC706MKII

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-22 12:50:22 UTC
From: frencharepoo@hotmail.com
Message-ID: <cb99ue$e36$1@news5.svr.pol.co.uk>
Source record: 25423

[No readable article body recovered]

392. Re: LSB problems with IC706MKII

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-22 12:50:26 UTC
From: frencharepoo@hotmail.com
Message-ID: <cb99ui$e39$1@news5.svr.pol.co.uk>
Source record: 25424

[No readable article body recovered]

393. Re: LSB problems with IC706MKII

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-22 12:50:41 UTC
From: frencharepoo@hotmail.com
Message-ID: <cb99v1$uc3$1@newsg1.svr.pol.co.uk>
Source record: 25425

[No readable article body recovered]

394. Re: LSB problems with IC706MKII

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-22 12:51:20 UTC
From: frencharepoo@hotmail.com
Message-ID: <cb9a08$4ma$1@news6.svr.pol.co.uk>
Source record: 25426

[No readable article body recovered]

395. Re: For magnet lovers...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-22 13:06:08 UTC
From: sjnoll@dontspambig-list.com
Message-ID: <40d82de5.941789@news.east.earthlink.net>
Source record: 25427
Cross-posted to: sci.electronics.design,sci.electronics.components,rec.radio.amateur.homebrew

On Tue, 22 Jun 2004 08:21:58 GMT, "Greysky"
<greyskynospam@sbcglobal.net> wrote:

>ever since I was a child, magnets have held a fascination for me. I've been
>collecting them ever since. It used to be that you could always scrounge
>loudspeakers for Alnico magnets. Then when the newer ceramic magnets began
>to be incorporated into loudspeakers, it became a challenge to remove them
>from their enclosures without breaking them. Now, I have to admit, I am
>having a ball collecting the new 'super magnets' - like the ones inside hard
>drives. There are also cool cylindrical magnets that you can get from inside
>the heads of VHS machines. My question is does anyone know of other sources
>either for Neodymium 'duper magnets', or strong ceramic magnets that I may
>be missing out on? Magnets like these come closest to being perpetual motion
>machines we have yet to make, and I'd hate to have some just wind up into
>the trash because I didn't know they were there :-)
>
>Thanks.!
>

They are magic, aren't they? Have you tried the drop a magnet down a
copper pipe trick?

Steve J. Noll | Ventura California |
| The Used High-Tech Equipment Dealer Directory
| http://www.big-list.com
| The Peltier Device Information Site:
| http://www.peltier-info.com

396. help identify: Varian VMC-1680 (5.5 GHz oscillator; Magnetron? Klystron?)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-22 13:11:10 UTC
From: peter_dingemans@hotmail.com
Message-ID: <195e9be4.0406220511.557db4fc@posting.google.com>
Source record: 25428

G'day everyone,

A while ago I acquired a piece of equipment, a beacon transponder on 5480 MHz (TX). In it is a 'block' that seems to be the oscillator for TX:

type nr. is 'VMC-1680'
made by Varian/beverly
date code 88236

the sizes of it are 35*55*31 mm; it's magnetic; the output is SMA.

There's a caution on it to keep it at least 4" away from magnets. 3 wires come out of it: red, black and grey. None of them seem to be HV-rated, so my original guess of a Magnetron or Klystron seem to be wrong.

I wonder if it's possible to use it for Ham-purposes (it seems tunable, and the 5,7 GHz hamband is very nearby...)

Anyway, does anyone have ANY info on it? I.e., what IS it, freq. range, power, inputs (voltages, currents), etc. A datasheet would be VERY nice, if it exists... (I already contacted Varian/Eimac (CPII), but nothing came up :-( )
Any help is GREATLY appreciated.

Sincerely,

Peter Dingemans,
The Netherlands.
NB: please also mail any replies to this group to me directly, peter_dingemans@hotmail.com I try to regularly check this group, but only have limited web access.

397. Re: help identify: Varian VMC-1680 (5.5 GHz oscillator; Magnetron? Klystron?)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-22 13:45:52 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <ntdgd01tv3k3hjbbbnoie7lsv6ck5b6cl5@4ax.com>
Source record: 25429

On 22 Jun 2004 06:11:10 -0700, peter_dingemans@hotmail.com (peter
dingemans) wrote:

>G'day everyone,
>
>A while ago I acquired a piece of equipment, a beacon transponder on
>5480 MHz (TX). In it is a 'block' that seems to be the oscillator for
>TX:
>
>type nr. is 'VMC-1680'
>made by Varian/beverly
>date code 88236
>
>the sizes of it are 35*55*31 mm; it's magnetic; the output is SMA.
>
>There's a caution on it to keep it at least 4" away from magnets.
>3 wires come out of it: red, black and grey. None of them seem to be
>HV-rated, so my original guess of a Magnetron or Klystron seem to be
>wrong.
>
>
>I wonder if it's possible to use it for Ham-purposes (it seems
>tunable, and the 5,7 GHz hamband is very nearby...)

If it's tunable it can't be a magnetron, anyway, surely? They resonate
at a fixed frequency determined by the mechanical cavities machined
into them.
--

"What is now proved was once only imagin'd." - William Blake, 1793.

398. Re: For magnet lovers...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-22 15:45:37 UTC
From: Julie <julie@nospam.com>
Message-ID: <40D85421.51DACE35@nospam.com>
Source record: 25430
Cross-posted to: sci.electronics.design,sci.electronics.components,rec.radio.amateur.homebrew

Greysky wrote:
>
> ever since I was a child, magnets have held a fascination for me. I've been
> collecting them ever since. It used to be that you could always scrounge
> loudspeakers for Alnico magnets. Then when the newer ceramic magnets began
> to be incorporated into loudspeakers, it became a challenge to remove them
> from their enclosures without breaking them. Now, I have to admit, I am
> having a ball collecting the new 'super magnets' - like the ones inside hard
> drives. There are also cool cylindrical magnets that you can get from inside
> the heads of VHS machines. My question is does anyone know of other sources
> either for Neodymium 'duper magnets', or strong ceramic magnets that I may
> be missing out on? Magnets like these come closest to being perpetual motion
> machines we have yet to make, and I'd hate to have some just wind up into
> the trash because I didn't know they were there :-)
>
> Thanks.!

For purchase:

http://www.gaussboys.com

has a small assortment.

As you are probably aware, the older the drive, typically the bigger the
magnets. The largest that I've found were from an old full-height 5 1/4"
internal 300 MB SCSI drive. Newer drives are a bit disappointing, their
magnets are getting pretty thin and break easily...

399. Re: Low current crystal oscillator

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-22 15:49:04 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10dgl74d81ar4cf@corp.supernews.com>
Source record: 25431

Hans Summers wrote:

> "Tim Wescott" <tim@wescottnospamdesign.com> wrote in message
> news:10dev1che6ucqc4@corp.supernews.com...
>
>>Hans Summers wrote:
>>
>>A 4060, using National's recommended circuit (from an '80 databook) and
>>a 32768Hz watch crystal, pulls 32 microamp -- and like I said before,
>>Digi-Key has 32000Hz crystals in stock, so there's your 1kHz reference.
>
>
> Many thanks Tim. I didn't realise 32KHz crystals were available. The usual
> 32768 wouldn't give the right timing but 32KHz is perfect. You actually
> prototyped this and measured the current? Did this use an old 4060 or a
> 74HC4060? What's the difference betweem families in terms of current
> consumption? Also, how do these families compare to things like 74AC, 74ACT,
> 74HCT? I know the T means TTL-compatible levels rather than the old CMOS
> family compatible levels, but is the current consumption different too?
>
Normally I resist the urge to prototype things, but yesterday was slow
and I could do this whole thing on a proto-board. I used a 4060, not a
74xCxxxx device. I have no idea how it'd play out on a xx4060, but with
a 74HC04 and the watch crystal I was seeing 1.6mA, and with the 4060 I
was seeing 32uA. This is an unfair test, because you're supposed to use
the 74HCU04 for oscillators; I have no idea how much this affected
things. I _did_ notice with the 74HC04 that running it at about 3V
brought the current down to the 30-50uA region, however.

> What exact circuit is in your '80 databook? I just had a look at various
> datasheets from different manufacturers, and all seem to have the same
> configuration. The national datasheet for the 4060 shows values of 15M and
> 330K for the resistors to suit a watch crystal
> http://cache.national.com/ds/CD/CD4020BC.pdf . I also found this 74HC4060
> datasheet for the ON Semiconductor version. It includes an interesting
> treatment of the calculation of the resistor values, see
> http://www.farnell.com/datasheets/42247.pdf .
>
Your National datasheet matches the one in my databook.

> Loads of questions I know. But this is fantastic as it will enable me to
> reduce the current consumption of the thing to under 1.5mA. I hope I'm right
> in thinking that by replacing the LED switching transistor with a FET, I'll
> also save some current consumption because of eliminating the base-emitter
> current, but I'm not a FET expert.

>
It should save a bit, but with a good junction transistor you should
only have to apply about 2-5% of the collector current to the base to
get saturation. If you're using one of the old standbys you should look
at newer transistors -- Zetex is good for this.

> Another nice thing is the 32KHz crystals are physically tiny: 6mm long and
> 2mm diameter. This means if I use SMD IC's I can make a next generation
> counter a fraction the size of the current one which is already miniature.
> One problem remains, which is getting hold of a 32KHz crystal. I have never
> bought anything from Digikey. The part I need is XC972-ND and is priced (UK
> pounds) ï¿½0.47. However I notice that there is a ï¿½10 handling fee and ï¿½12
> shipping! The total order cost would be ï¿½22.47, for one simple crystal.
> That's about US $41! Therefore does anyone in rec.radio.amateur.homebrew
> reside in the US, order frequently or in the near future from Digikey, and
> wouldn't mind adding one of those to their order and popping it in an
> envelope to me - I'll pay all costs of course as long as you don't charge me
> ï¿½10 handling ;-)
>
The handling fee ($20 in the US) is only applied for small orders, so
you can either get $1.00 worth of stuff for $21, or you can get $21
worth of stuff for $21 -- this still doesn't save you the shipping
charges, though.

> 73 Hans G0UPL
> http://www.HansSummers.com
>
>

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

400. Re: For magnet lovers...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-22 16:29:45 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <cb9mtv$460$1@newshost.mot.com>
Source record: 25434
Cross-posted to: sci.electronics.design,sci.electronics.components,rec.radio.amateur.homebrew

"Steve J. Noll" <sjnoll@dontspambig-list.com> wrote in message
news:40d82de5.941789@news.east.earthlink.net...
> On Tue, 22 Jun 2004 08:21:58 GMT, "Greysky"
> <greyskynospam@sbcglobal.net> wrote:
>
> >ever since I was a child, magnets have held a fascination for me. ...
> >
>
> They are magic, aren't they? Have you tried the drop a magnet down a
> copper pipe trick?

Now how come I never thought of that one. Know what i'll be doing this
evening...

--
Steve N, K,9;d, c. i My email has no u's.

401. Re: I`m Sorry, I Have Rectification

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-22 16:30:39 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <cb9mvl$46d$1@newshost.mot.com>
Source record: 25433

I thought it was a "she", but it's hard to tell...

"Paul Burridge" <pb@notthisbit.osiris1.co.uk> wrote in message
news:72ned0telajq07gi2hq5c8bqic118thcqc@4ax.com...
> On Mon, 21 Jun 2004 19:33:36 +0000, Eamon Skelton
> <Xnospam@oceanfree.net> wrote:
>
> >Zoran Dimitrijevic wrote:
> >
> >I`m Sorry, I Have Rectification
> >
> >At last! Something related to homebrew radio.
>
> Indeed. I wonder if he's using germanium or silicon.
> --
>
> "What is now proved was once only imagin'd." - William Blake, 1793.

402. Re: For magnet lovers...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-22 16:47:46 UTC
From: k7itm@aol.com
Message-ID: <3200347.0406220847.423746b8@posting.google.com>
Source record: 25432
Cross-posted to: sci.electronics.design,sci.electronics.components,rec.radio.amateur.homebrew

http://www.wondermagnet.com/

"Greysky" <greyskynospam@sbcglobal.net> wrote in message
news:<G_RBc.3475$Lu3.2606@newssvr25.news.prodigy.com>...
> ever since I was a child, magnets have held a fascination for me. I've been
> collecting them ever since. It used to be that you could always scrounge
> loudspeakers for Alnico magnets. Then when the newer ceramic magnets began
> to be incorporated into loudspeakers, it became a challenge to remove them
> from their enclosures without breaking them. Now, I have to admit, I am
> having a ball collecting the new 'super magnets' - like the ones inside hard
> drives. There are also cool cylindrical magnets that you can get from inside
> the heads of VHS machines. My question is does anyone know of other sources
> either for Neodymium 'duper magnets', or strong ceramic magnets that I may
> be missing out on? Magnets like these come closest to being perpetual motion
> machines we have yet to make, and I'd hate to have some just wind up into
> the trash because I didn't know they were there :-)
>
> Thanks.!

403. TS-520 Oscillator Problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-22 17:09:12 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10dgptd685gl900@corp.supernews.com>
Source record: 25435
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

I have a Kenwood TS-520 sitting on my shelf with a severe VFO problem.
The oscillator frequency intermittently goes unstable, when the
oscillator doesn't cut out completely. The problem will go away if the
tuning knob is bumped a bit, and it seems to be worse at the higher
frequency portion of a band. The radio is unreliable for receiving, and
is not good enough to even think about transmitting.

Without having ripped into the oscillator yet, I am theorizing that
there is a bad connection on the main tuning capacitor. Before I _do_
tear things apart, I wanted to ask:

1. Has anyone out there seen a similar problem? What did it end up being?

2. The oscillator in this rig is well buried, and will take some
careful disassembly to expose. Do any of you have a manual that details
this operation, or have you done it yourself? I'm well capable of doing
it as-is, but if there's a known best way to do it I'd like to start there.

Thanks in advance.

--

Tim Wescott, KG7LI

404. Re: Low current crystal oscillator

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-22 17:24:45 UTC
From: Paul_Morphy <nopaul_morphy2@coolgoose.com>
Message-ID: <xXZBc.115778$Gx4.19895@bgtnsc04-news.ops.worldnet.att.net>
Source record: 25436

If this Mouser part will work, you won't have to deal with a minimum order.

http://www.mouser.com/index.cfm?handler=displayproduct&lstdisppproductid=562091&e_categoryid=438&e_pcodeid=69500

In case the link doesn't work, it's Mouser Part #: 695-CFV206-32K . 32 kHz, 12.5 pF.

73,

"PM"

405. Re: I`m Sorry, I Have Rectification

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-22 17:27:21 UTC
From: SioL <nospam@die-spammers.com>
Message-ID: <I0_Bc.5499$37.714025@news.siol.net>
Source record: 25437

"Steve Nosko" <suteuve.nosukowicuz@moutouroula.com> wrote in message
news:cb9mvl$46d$1@newshost.mot.com...
> I thought it was a "she", but it's hard to tell...

It was a he :)

SioL

406. Re: For magnet lovers...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-22 17:57:22 UTC
From: JW <none@dev.nul>
Message-ID: <fnsgd0tq5phgvr0n5vec67tfcv90pecrqm@4ax.com>
Source record: 25438
Cross-posted to: sci.electronics.design,sci.electronics.components,rec.radio.amateur.homebrew

On Tue, 22 Jun 2004 13:06:08 GMT sjnoll@dontspambig-list.com (Steve J. Noll) wrote in Message id: <40d82de5.941789@news.east.earthlink.net>:

>Have you tried the drop a magnet down a
>copper pipe trick?

I'll bite. What happens?

407. Re: For magnet lovers...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-22 18:02:44 UTC
From: Rick <rick@skyko.com>
Message-ID: <8v_Bc.21249$Yb1.12855@nwrddc02.gnilink.net>
Source record: 25440
Cross-posted to: sci.electronics.design,sci.electronics.components,rec.radio.amateur.homebrew

"Steve Nosko" <suteuve.nosukowicuz@moutouroula.com> wrote in message
news:cb9mtv$460$1@newshost.mot.com...
>
> "Steve J. Noll" <sjnoll@dontspambig-list.com> wrote in message
> news:40d82de5.941789@news.east.earthlink.net...
> > On Tue, 22 Jun 2004 08:21:58 GMT, "Greysky"
> > <greyskynospam@sbcglobal.net> wrote:
> >
> > >ever since I was a child, magnets have held a fascination for me. ...
> > >
> >
> > They are magic, aren't they? Have you tried the drop a magnet down a
> > copper pipe trick?
>
> Now how come I never thought of that one. Know what i'll be doing this
> evening...
>
> --
> Steve N, K,9;d, c. i My email has no u's.
>
>

I just tried it with a 1/2 inch copper pipe and a 1/4 inch cube magnet.
Incredible! I did not know it would have that much of an effect!

408. Re: TS-520 Oscillator Problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-22 18:03:22 UTC
From: Eskay <spark_gap2000@yahoo.ca>
Message-ID: <1tudmli2n9ze2$.1giqybgdsmkrh.dlg@40tude.net>
Source record: 25439
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

On Tue, 22 Jun 2004 10:09:12 -0700, Tim Wescott wrote:

> I have a Kenwood TS-520 sitting on my shelf with a severe VFO problem.
> The oscillator frequency intermittently goes unstable, when the
> oscillator doesn't cut out completely. The problem will go away if the
> tuning knob is bumped a bit, and it seems to be worse at the higher
> frequency portion of a band. The radio is unreliable for receiving, and
> is not good enough to even think about transmitting.
>
> Without having ripped into the oscillator yet, I am theorizing that
> there is a bad connection on the main tuning capacitor. Before I _do_
> tear things apart, I wanted to ask:
>
> 1. Has anyone out there seen a similar problem? What did it end up being?
>
> 2. The oscillator in this rig is well buried, and will take some
> careful disassembly to expose. Do any of you have a manual that details
> this operation, or have you done it yourself? I'm well capable of doing
> it as-is, but if there's a known best way to do it I'd like to start there.
>
> Thanks in advance.

Hi,,I am assuming that the VFO in the 520 is very similar to the one in the
TS 820 that I used to own.
The frequency counter did not always work in certain spots on the dial, and
of course the radio went dead at the same time.
I finally broke down and removed the VFO from the radio and opened the VFO
up. The main bearing of the tuning capacitor was not always making contact
because of dried up lubricant.
Don't remember for sure what I did to clean it, I used vaseline to
lubricate and reassembled the whole thing..It worked OK after that..
73 de Sieb VE3JUA.

409. Re: For magnet lovers...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-22 18:12:58 UTC
From: k7itm@aol.com
Message-ID: <3200347.0406221012.3b94df55@posting.google.com>
Source record: 25441
Cross-posted to: sci.electronics.design,sci.electronics.components,rec.radio.amateur.homebrew

Boris Mohar <borism_-void-_@sympatico.ca> wrote in message
news:<6h8gd0la8el0m4m5nl7haao3oans6oj2r2@4ax.com>...
...
> Take apart a hard drive. There is a pail of magnets ...
^^^^
What a great mental image! I was in need of a chuckle today, and you
came through. Thanks. (BTW, the OP had already mentioned the HD
magnets...)

410. DCF-77 receiver, any ideas?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-22 18:37:45 UTC
From: "Odd Erling N. Eriksen" <odderi@pvv.org>
Message-ID: <cb9u9p$cq6$1@orkan.itea.ntnu.no>
Source record: 25442

Hi,

After getting hold of some nixie tubes, I've built myself an alarm clock using four tubes to show hh:mm (or dd:mm, at the press of a button).

I am now thinking of extending its functionality; rather than keeping track of time using a RTC module, I'd like it to set itself after the DCF77 German LW time signal station.

The format is quite simple - AM, carrier drops to 25% power for a period of .1 or .2 seconds at the beginning of each second, symbolising a logic low or high, respectively. The date, time and other info is then encoded in a datagram whose transmission takes a minute.

My first idea is to build a direct conversion receiver, using a micro-controller with ADC to decode the data stream.

Any other suggestions? Seems DC will get me going with a minimum of parts - all of which I have in my junk box. Any reasons why this might not work satisfactorily? I live on 63'40"N, so the signals are not very strong - my Junghans DCF77 controlled alarm clock works fine in winter, less so in summer. I will be using a much larger ferrite for antenna in the nixie clock, though. Sensitivity shouldn't be a problem.

Thanks,

--
73 de LB1LF

Odd Erling, ARK

More people are killed by donkeys than plane crashes.

411. Re: TS-520 Oscillator Problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-22 18:57:49 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10dh091ija1b0c8@corp.supernews.com>
Source record: 25443
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

Eskay wrote:

> On Tue, 22 Jun 2004 10:09:12 -0700, Tim Wescott wrote:
>
>
>>I have a Kenwood TS-520 sitting on my shelf with a severe VFO problem.
>>The oscillator frequency intermittently goes unstable, when the
>>oscillator doesn't cut out completely. The problem will go away if the
>>tuning knob is bumped a bit, and it seems to be worse at the higher
>>frequency portion of a band. The radio is unreliable for receiving, and
>>is not good enough to even think about transmitting.
>>
>>Without having ripped into the oscillator yet, I am theorizing that
>>there is a bad connection on the main tuning capacitor. Before I _do_
>>tear things apart, I wanted to ask:
>>
>>1. Has anyone out there seen a similar problem? What did it end up being?
>>
>>2. The oscillator in this rig is well buried, and will take some
>>careful disassembly to expose. Do any of you have a manual that details
>>this operation, or have you done it yourself? I'm well capable of doing
>>it as-is, but if there's a known best way to do it I'd like to start there.
>>
>>Thanks in advance.
>
>
> Hi,,I am assuming that the VFO in the 520 is very similar to the one in the
> TS 820 that I used to own.
> The frequency counter did not always work in certain spots on the dial, and
> of course the radio went dead at the same time.
> I finally broke down and removed the VFO from the radio and opened the VFO
> up. The main bearing of the tuning capacitor was not always making contact
> because of dried up lubricant.
> Don't remember for sure what I did to clean it, I used vaseline to
> lubricate and reassembled the whole thing..It worked OK after that..
> 73 de Sieb VE3JUA.

That sounds very plausible. I got the radio at a hamfest, and I think I
know why...

Did you have any trouble getting the oscillator out, or was it just a
matter of taking the usual care with such things? On my 520 it looks
like I have to go through a few layers to get to the VFO case.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

412. Re: help identify: Varian VMC-1680 (5.5 GHz oscillator; Magnetron? Klystron?)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-22 19:06:33 UTC
From: Joe McElvenney <ximac@btinternet.com>
Message-ID: <VA.0000001c.00d22973@btinternet.com>
Source record: 25444

Hi,

The device in question is possibly a YIG oscillator although
there aren't as many wires coming out of it as usual. For a
simple beacon source though (DC power and tuning coil current),
it may not have needed many more.

BTW - magnetrons are/were quite often tuneable.

Cheers - Joe

413. Re: Double gate FET

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-22 20:04:15 UTC
From: millerke6f@aol.com
Message-ID: <20040622160415.25561.00000466@mb-m29.aol.com>
Source record: 25445

Send me a SASE and I'll send you a pinch of BR998 dual gate mosfets (better than 40673, but small surface mount package,, but will still solder down to 0.1 inch spaced pads if a little care is taken.

Bob, KE6F

Bob Miller, KE6F
9655 Appalachian Dr.
Sacramento, CA 95827

73
Bob

414. Re: For magnet lovers...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-22 21:12:11 UTC
From: Paul_Morphy <nopaul_morphy2@coolgoose.com>
Message-ID: <Lg1Cc.116751$Gx4.75197@bgtnsc04-news.ops.worldnet.att.net>
Source record: 25446
Cross-posted to: sci.electronics.design,sci.electronics.components,rec.radio.amateur.homebrew

"JW" <none@dev.nul> wrote in message
news:fnsgd0tq5phgvr0n5vec67tfcv90pecrqm@4ax.com...
> On Tue, 22 Jun 2004 13:06:08 GMT sjnoll@dontspambig-list.com (Steve J.
> Noll) wrote in Message id: <40d82de5.941789@news.east.earthlink.net>:
>
> >Have you tried the drop a magnet down a
> >copper pipe trick?
>
> I'll bite. What happens?

I'm guessing some EMF is induced.

"PM"

415. Re: For magnet lovers...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-22 21:53:32 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10dhaigme00e429@corp.supernews.com>
Source record: 25297
Cross-posted to: sci.electronics.design,sci.electronics.components,rec.radio.amateur.homebrew

Steve Nosko wrote:

> "Steve J. Noll" <sjnoll@dontspambig-list.com> wrote in message
> news:40d82de5.941789@news.east.earthlink.net...
>
>>On Tue, 22 Jun 2004 08:21:58 GMT, "Greysky"
>><greyskynospam@sbcglobal.net> wrote:
>>
>>
>>>ever since I was a child, magnets have held a fascination for me. ...
>>>
>>
>>They are magic, aren't they? Have you tried the drop a magnet down a
>>copper pipe trick?
>
>
> Now how come I never thought of that one. Know what i'll be doing this
> evening...
>

Hey fun! I knew about the effect, but never thought to try it with
something so mechanically simple. I'm going to have to show the kids now.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

416. Re: Low current crystal oscillator

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-22 22:03:28 UTC
From: Highland Ham <abgm0csz.kn6whyz@ntlworld.com>
Message-ID: <jU2Cc.547$Nx2.99@newsfe3-win.server.ntli.net>
Source record: 25298

> Another nice thing is the 32KHz crystals are physically tiny: 6mm long and
> 2mm diameter. This means if I use SMD IC's I can make a next generation
> counter a fraction the size of the current one which is already miniature.
> One problem remains, which is getting hold of a 32KHz crystal. I have
never
> bought anything from Digikey. The part I need is XC972-ND and is priced
(UK
> pounds) ?0.47. However I notice that there is a ?10 handling fee and ?12
> shipping! The total order cost would be ?22.47, for one simple crystal.
> That's about US $41! Therefore does anyone in rec.radio.amateur.homebrew
> reside in the US, order frequently or in the near future from Digikey, and
> wouldn't mind adding one of those to their order and popping it in an
> envelope to me - I'll pay all costs of course as long as you don't charge
me
> ?10 handling ;-)
========
Hans , May I suggest you check supply of above with Mode
Components -Birmingham, small company (no VAT)
sales@modecomponents.co.uk www.modecomponents.co.uk

Frank GM0CSZ / KN6WH

417. Re: For magnet lovers...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-22 22:45:35 UTC
From: Julie <julie@nospam.com>
Message-ID: <40D8B68F.D03052A2@nospam.com>
Source record: 25299
Cross-posted to: sci.electronics.design,sci.electronics.components,rec.radio.amateur.homebrew

JW wrote:
>
> On Tue, 22 Jun 2004 13:06:08 GMT sjnoll@dontspambig-list.com (Steve J.
> Noll) wrote in Message id: <40d82de5.941789@news.east.earthlink.net>:
>
> >Have you tried the drop a magnet down a
> >copper pipe trick?
>
> I'll bite. What happens?

http://my.execpc.com/~rhoadley/magpipes.htm

418. Re: For magnet lovers...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-22 22:56:40 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <cbadje$8c7$1@newshost.mot.com>
Source record: 25311
Cross-posted to: sci.electronics.design,sci.electronics.components,rec.radio.amateur.homebrew

"Steve Nosko" <suteuve.nosukowicuz@moutouroula.com> wrote in message
news:cb9mtv$460$1@newshost.mot.com...
>
> "Steve J. Noll" <sjnoll@dontspambig-list.com> wrote in message
> news:40d82de5.941789@news.east.earthlink.net...
> > On Tue, 22 Jun 2004 08:21:58 GMT, "Greysky"
> > <greyskynospam@sbcglobal.net> wrote:
> >
> > >ever since I was a child, magnets have held a fascination for me. ...
> > >
> >
> > They are magic, aren't they? Have you tried the drop a magnet down a
> > copper pipe trick?
>
> Now how come I never thought of that one. Know what i'll be doing this
> evening...

Chuckle chuckle...anyone have a silver pipe?

Steve N, K,9;d, c. i My email has no u's.

419. Re: For magnet lovers...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-22 23:08:30 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <cbae9k$8go$1@newshost.mot.com>
Source record: 25312
Cross-posted to: sci.electronics.design,sci.electronics.components,rec.radio.amateur.homebrew

"Paul_Morphy" <nopaul_morphy2@coolgoose.com> wrote in message
news:Lg1Cc.116751$Gx4.75197@bgtnsc04-news.ops.worldnet.att.net...
>
> "JW" <none@dev.nul> wrote in message
> news:fnsgd0tq5phgvr0n5vec67tfcv90pecrqm@4ax.com...
> > On Tue, 22 Jun 2004 13:06:08 GMT sjnoll@dontspambig-list.com (Steve J.
> > Noll) wrote in Message id: <40d82de5.941789@news.east.earthlink.net>:
> >
> > >Have you tried the drop a magnet down a
> > >copper pipe trick?
> >
> > I'll bite. What happens?
>
> I'm guessing some EMF is induced.

...and... continue with the line of reasoning...

What does that EMF produce and where?...

--
Steve N, K,9;d, c. i My email has no u's.

420. Re: help identify: Varian VMC-1680 (5.5 GHz oscillator; Magnetron? Klystron?)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-23 01:59:18 UTC
From: Bruce in Alaska <bruceg@btpost.net>
Message-ID: <bruceg-E874F0.17595822062004@netnews.worldnet.att.net>
Source record: 25300

In article <ntdgd01tv3k3hjbbbnoie7lsv6ck5b6cl5@4ax.com>,
Paul Burridge <pb@notthisbit.osiris1.co.uk> wrote:

> If it's tunable it can't be a magnetron, anyway, surely? They resonate
> at a fixed frequency determined by the mechanical cavities machined
> into them.

Not true at all. There are a pile of different tuneable maggies that
were built for Military Uses, in all bands from C, S, clear up thru Ku.
It is just the civilian commercial maggies that are fixed tuned, because
the FCC, DOC, and other regulators don't want untrained operators
messing around with the tuning controls.

Bruce in alaska who used to be one of those regulators......
--
add a <2> before @

421. Re: For magnet lovers...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-23 02:07:12 UTC
From: Steve <LafayetteRadio1@optonline.net>
Message-ID: <40D8E653.6FE89C84@optonline.net>
Source record: 25301
Cross-posted to: sci.electronics.design,sci.electronics.components,rec.radio.amateur.homebrew

what does it do??

>
> >>They are magic, aren't they? Have you tried the drop a magnet down a
> >>copper pipe trick?
> >
> >
> > > Now how come I never thought of that one. Know what i'll be doing this
> > > evening...
> > >
>
> Hey fun! I knew about the effect, but never thought to try it with
> something so mechanically simple. I'm going to have to show the kids now.
>
> --
>
> Tim Wescott
> Wescott Design Services
> http://www.wescottdesign.com

422. Re: For magnet lovers...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-23 02:20:37 UTC
From: Steve <LafayetteRadio1@optonline.net>
Message-ID: <40D8E975.2234E9EF@optonline.net>
Source record: 25302
Cross-posted to: sci.electronics.design,sci.electronics.components,rec.radio.amateur.homebrew

Hi, I don't know how powerful the magnets you have but I picked up these
3/4 inch sphere magnets on ebay. I have never seen any magnet so powerful.
Amazing!!!! These are not toys for kids!!!!!

One of his auctions.
http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=1469&item=5503175363

http://www.kjmagnetics.com/

Have fun

==========

Greysky wrote:

> ever since I was a child, magnets have held a fascination for me. I've been
> collecting them ever since. It used to be that you could always scrounge
> loudspeakers for Alnico magnets. Then when the newer ceramic magnets began
> to be incorporated into loudspeakers, it became a challenge to remove them
> from their enclosures without breaking them. Now, I have to admit, I am
> having a ball collecting the new 'super magnets' - like the ones inside hard
> drives. There are also cool cylindrical magnets that you can get from inside
> the heads of VHS machines. My question is does anyone know of other sources
> either for Neodymium 'duper magnets', or strong ceramic magnets that I may
> be missing out on? Magnets like these come closest to being perpetual motion
> machines we have yet to make, and I'd hate to have some just wind up into
> the trash because I didn't know they were there :-)
>
> Thanks.!

423. Re: For magnet lovers...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-23 03:06:33 UTC
From: don@manx.misty.com
Message-ID: <slrncdhstp.kid.don@manx.misty.com>
Source record: 25303
Cross-posted to: sci.electronics.design,sci.electronics.components,rec.radio.amateur.homebrew

In article <40D8E653.6FE89C84@optonline.net>, Steve wrote:
>
>--------------9002068B3CF78CE28C8CE7B3
>Content-Type: text/plain; charset=us-ascii
>Content-Transfer-Encoding: 7bit
>
>what does it do??
>
>> >>They are magic, aren't they? Have you tried the drop a magnet down a
>> >>copper pipe trick?

The magnet moving down the pipe induces eddy currents. These eddy currents produce an electromagnetic force that resists the movement of the magnet (with respect to the pipe) and does so to an extent varying directly with the speed at which the magnet is moving. This slows down the magnet.

At least this is what I have heard.

And aluminum tubes do this also, just not quite as much as copper ones do. And I have seen aluminum tube stock.

Most other metals do this less, but I imagine that iron and lead pipes may slow the fall of a close-fitting "rare earth magnet" a little in comparison to nonconductive pipes.

- Don Klipstein (don@misty.com)

424. Re: For magnet lovers...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-23 03:28:30 UTC
From: Rich Grise <null@example.net>
Message-ID: <yN6Cc.24109$a61.6826@nwrddc01.gnilink.net>
Source record: 25304
Cross-posted to: sci.electronics.design,sci.electronics.components,rec.radio.amateur.homebrew

"Jan Panteltje" <pNaonStpealmtje@yahoo.com> wrote in message
news:202b1564ec5508b648c026bbbf9b8ad4@news.teranews.com...
> On a sunny day (Tue, 22 Jun 2004 08:21:58 GMT) it happened "Greysky"
> <greyskynospam@sbcglobal.net> wrote in
> <G_RBc.3475$Lu3.2606@newssvr25.news.prodigy.com>:
>
> >ever since I was a child, magnets have held a fascination for me. I've
been
> >collecting them ever since. It used to be that you could always scrounge
> >loudspeakers for Alnico magnets. Then when the newer ceramic magnets
began
> >to be incorporated into loudspeakers, it became a challenge to remove
them
> >from their enclosures without breaking them. Now, I have to admit, I am
> >having a ball collecting the new 'super magnets' - like the ones inside
hard
> >drives. There are also cool cylindrical magnets that you can get from
inside
> >the heads of VHS machines. My question is does anyone know of other
sources
> >either for Neodymium 'duper magnets', or strong ceramic magnets that I
may
> >be missing out on? Magnets like these come closest to being perpetual
motion
> >machines we have yet to make, and I'd hate to have some just wind up into
> >the trash because I didn't know they were there :-)
> >
> >Thanks.!
> There is a big magnetic iron core if you dig deep enough.
> There are stars with an extremly strong magnetic field,
> very very strong.
> We need a composite (non metal) spaceship.
> hehe
>
Actually, I think the metaphasic shield gets around that problem.

Cheers!
Rich

425. Re: TS-520 Oscillator Problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-23 03:34:58 UTC
From: ed <notMred@nospamer.com>
Message-ID: <40D8FA60.D05E3981@nospamer.com>
Source record: 25305
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

hi tim,

do you subscribe to the kenwood reflector?

To subscribe or unsubscribe via the World Wide Web, visit
http://mailman.qth.net/mailman/listinfo/kenwood

73 ed

Tim wrote:

> Eskay wrote:
>
> > On Tue, 22 Jun 2004 10:09:12 -0700, Tim Wescott wrote:
> > >
> > >
> >I have a Kenwood TS-520 sitting on my shelf with a severe VFO problem.
> >The oscillator frequency intermittently goes unstable, when the
> >oscillator doesn't cut out completely. The problem will go away if the
> >tuning knob is bumped a bit, and it seems to be worse at the higher
> >frequency portion of a band. The radio is unreliable for receiving, and
> >is not good enough to even think about transmitting.
> >>
> >Without having ripped into the oscillator yet, I am theorizing that
> >there is a bad connection on the main tuning capacitor. Before I _do_
> >tear things apart, I wanted to ask:
> >>
> >1. Has anyone out there seen a similar problem? What did it end up being?
> >>
> >2. The oscillator in this rig is well buried, and will take some
> >careful disassembly to expose. Do any of you have a manual that details
> >this operation, or have you done it yourself? I'm well capable of doing
> >it as-is, but if there's a known best way to do it I'd like to start there.
> >>
> >Thanks in advance.
> >
> >
> > Hi,,I am assuming that the VFO in the 520 is very similar to the one in the
> > TS 820 that I used to own.
> > The frequency counter did not always work in certain spots on the dial, and
> > of course the radio went dead at the same time.
> > I finally broke down and removed the VFO from the radio and opened the VFO
> > up. The main bearing of the tuning capacitor was not always making contact
> > because of dried up lubricant.
> > Don't remember for sure what I did to clean it, I used vaseline to

> > lubricate and reassembled the whole thing..It worked OK after that..
> > 73 de Sieb VE3JUA.
>
> That sounds very plausible. I got the radio at a hamfest, and I think I
> know why...
>
> Did you have any trouble getting the oscillator out, or was it just a
> matter of taking the usual care with such things? On my 520 it looks
> like I have to go through a few layers to get to the VFO case.
>
> --
>
> Tim Wescott
> Wescott Design Services
> http://www.wescottdesign.com

426. Re: TS-520 Oscillator Problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-23 03:58:37 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10dhvv0k7dbmvec@corp.supernews.com>
Source record: 25306
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

ed wrote:

> hi tim,
>
> do you subscribe to the kenwood reflector?
>
> To subscribe or unsubscribe via the World Wide Web, visit
> http://mailman.qth.net/mailman/listinfo/kenwood
>
> 73 ed
>
>
> Tim wrote:
>
>
>>Eskay wrote:
>>
>>
>>>On Tue, 22 Jun 2004 10:09:12 -0700, Tim Wescott wrote:
>>>
>>>
>>>
>>>>I have a Kenwood TS-520 sitting on my shelf with a severe VFO problem.
>>>>The oscillator frequency intermittently goes unstable, when the
>>>>oscillator doesn't cut out completely. The problem will go away if the
>>>>tuning knob is bumped a bit, and it seems to be worse at the higher
>>>>frequency portion of a band. The radio is unreliable for receiving, and
>>>>is not good enough to even think about transmitting.
>>>>
>>>>Without having ripped into the oscillator yet, I am theorizing that
>>>>there is a bad connection on the main tuning capacitor. Before I _do_
>>>>tear things apart, I wanted to ask:
>>>>
>>>>1. Has anyone out there seen a similar problem? What did it end up being?
>>>>
>>>>2. The oscillator in this rig is well buried, and will take some
>>>>careful disassembly to expose. Do any of you have a manual that details
>>>>this operation, or have you done it yourself? I'm well capable of doing
>>>>it as-is, but if there's a known best way to do it I'd like to start there.
>>>>
>>>>Thanks in advance.
>>>
>>>

>>>Hi,,I am assuming that the VFO in the 520 is very similar to the one in the
>>>TS 820 that I used to own.
>>>The frequency counter did not always work in certain spots on the dial, and
>>>of course the radio went dead at the same time.
>>>I finally broke down and removed the VFO from the radio and opened the VFO
>>>up. The main bearing of the tuning capacitor was not always making contact
>>>because of dried up lubricant.
>>>Don't remember for sure what I did to clean it, I used vaseline to
>>>lubricate and reassembled the whole thing..It worked OK after that..
>>> 73 de Sieb VE3JUA.
>>
>>That sounds very plausible. I got the radio at a hamfest, and I think I
>>know why...
>>
>>Did you have any trouble getting the oscillator out, or was it just a
>>matter of taking the usual care with such things? On my 520 it looks
>>like I have to go through a few layers to get to the VFO case.
>>
>>--
>>
>>Tim Wescott
>>Wescott Design Services
>>http://www.wescottdesign.com
>
>
No, but it looks like I should -- even if I'm already in mailing list
overload.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

427. Re: RCA 7213 Transmitting tube + Duplexors

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-23 04:34:54 UTC
From: * <*@*.com>
Message-ID: <2jsfj6F14b9bcU1@uni-berlin.de>
Source record: 25307
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.swap

"*" <*@*.com> wrote in message news:2jsfglF158brfU1@uni-berlin.de...
> On ebay at http://tinyurl.com/2ob99
>
> RCA 7213 AF High power High frequency Transmitting Tube Ceramic. NOS 7213
> is rare and desirable for use at UHF 1.5KW. Unused, good filament and no
> shorts. Coaxial socketed tubes. They are supposed to be a good tube for
> around 1200 MHz but are excellent for 432 MHz. These are HUGE and have a
> very large anode similar in diameter to an 8877 but not as tall. They have
a
> pink cermamic on the sides. These tubes cost thousands of dollars each
when
> new. http://www.surplussales.com/Tubes-Sock-Acc/TubeSpecials.html I was
> going to use it for a project, never got around to doing it.
> data sheet at http://www.g8wrb.org/
>
>
>
>
>
> On ebay at http://tinyurl.com/2rwl5
>
> Decibel Tranceiver Duplexer DB4076W-A, 450 to 470, 4 resonant cavities
>
> 19 inch rack mount about 5 inches tall, 10 inches deep. From good working
> repeater, used about 5 months.
>
>

428. Re: For magnet lovers...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-23 05:59:05 UTC
From: dplatt@radagast.org
Message-ID: <10di719n35vmufe@corp.supernews.com>
Source record: 25308
Cross-posted to: sci.electronics.design,sci.electronics.components,rec.radio.amateur.homebrew

In article <slrncdhstp.kid.don@manx.misty.com>,
Don Klipstein <don@manx.misty.com> wrote:

> Most other metals do this less, but I imagine that iron and lead pipes
>may slow the fall of a close-fitting "rare earth magnet" a little in
>comparison to nonconductive pipes.

#chuckle#

More than a little, in the case of an iron pipe!

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

429. Free: HP1743A scope "for parts"

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-23 06:35:05 UTC
From: k7itm@aol.com
Message-ID: <3200347.0406222235.15b120af@posting.google.com>
Source record: 25309
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew,sci.electronics.design

Free...HP1743A scope. The tube died. (The magic vacuum escaped!) It is possible to get replacement tubes, last time I checked. The scope was working well up till the tube died. Pick up in the Seattle/Everett area, or I'll ship for actual shipping cost plus $10 packing fee.

Cheers,
Tom

430. Re: For magnet lovers...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-23 06:59:16 UTC
From: Richard Henry <rphenry@home.com>
Message-ID: <cT9Cc.617$Y_5.15@fed1read02>
Source record: 25310
Cross-posted to: sci.electronics.design,sci.electronics.components,rec.radio.amateur.homebrew

"Don Klipstein" <don@manx.misty.com> wrote in message
news:slrncdhstp.kid.don@manx.misty.com...
> In article <40D8E653.6FE89C84@optonline.net>, Steve wrote:
> >
> >--------------9002068B3CF78CE28C8CE7B3
> >Content-Type: text/plain; charset=us-ascii
> >Content-Transfer-Encoding: 7bit
> >
> >what does it do??
> >
> >> >>They are magic, aren't they? Have you tried the drop a magnet down a
> >> >>copper pipe trick?
>
> The magnet moving down the pipe induces eddy currents. These eddy
> currents produce an electromagnetic force that resists the movement of the
> magnet (with respect to the pipe) and does so to an extent varying
> directly with the speed at which the magnet is moving. This slows down
> the magnet.
>
> At least this is what I have heard.
>
> And aluminum tubes do this also, just not quite as much as copper ones
> do. And I have seen aluminum tube stock.
>
> Most other metals do this less, but I imagine that iron and lead pipes
> may slow the fall of a close-fitting "rare earth magnet" a little in
> comparison to nonconductive pipes.

Well, iron for sure.

431. Re: For magnet lovers...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-23 08:50:58 UTC
From: Barry Lennox <pbarryplennoxp@operamail.com>
Message-ID: <mtgid0pj2tleoj42ut9o4om665bvd3upmc@4ax.com>
Source record: 25313
Cross-posted to: sci.electronics.design,sci.electronics.components,rec.radio.amateur.homebrew

On Tue, 22 Jun 2004 08:21:58 GMT, "Greysky"
<greyskynospam@sbcglobal.net> wrote:

>ever since I was a child, magnets have held a fascination for me. I've been
>collecting them ever since. It used to be that you could always scrounge
>loudspeakers for Alnico magnets. Then when the newer ceramic magnets began
>to be incorporated into loudspeakers, it became a challenge to remove them
>from their enclosures without breaking them. Now, I have to admit, I am
>having a ball collecting the new 'super magnets' - like the ones inside hard
>drives. There are also cool cylindrical magnets that you can get from inside
>the heads of VHS machines. My question is does anyone know of other sources
>either for Neodymium 'duper magnets', or strong ceramic magnets

Strip down an old microwave oven, but be careful of the HV cap, it may
still be charged. (about 1uF at 3000v !!!!) Every one I have found has
a bleeder resistor acros it, so is safe, but you never know.

Anyway, remove the Magnetron and pull it to bits, 2 nice "doughnut"
ceramic magnets await you.

Barry Lennox

432. Re: For magnet lovers...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-23 09:01:55 UTC
From: Guy Macon <http>
Message-ID: <10dihplebmij0c@corp.supernews.com>
Source record: 25314
Cross-posted to: sci.electronics.components,rec.radio.amateur.homebrew

One good way to make a dramatic experiment is to get two identical Neodymium-Iron-Boron magnets, permanently demagnetize one by subjecting it to heat, and comparing how they perform in the copper pipe. You could look up the demagnetizing temperature[1] and rig up a thermometer, but it's easier to hold a small compass near the magnet as you heat it. You could also try degaussing it with a powerful AC electromagnet.

[1] See irreversible demagnetization versus temperature curves at http://www.component.tdk.com/eneor_mg.pdf

Also see:
http://www.scitoys.com/scitoys/scitoys/magnets/magnets.html
http://www.rare-earth-magnets.com/magnet_university/magnets_FAQ.htm

--
Guy Macon, Electronics Engineer & Project Manager for hire.
Remember Doc Brown from the _Back to the Future_ movies? Do you have an "impossible" engineering project that only someone like Doc Brown can solve? My resume is at http://www.guymacon.com/

433. Re: Free: HP1743A scope "for parts"

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-23 09:50:46 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <pikid0123jqnbl2v2rtsf8soebhj0ob7rs@4ax.com>
Source record: 25315
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew,sci.electronics.design

On 22 Jun 2004 23:35:05 -0700, k7itm@aol.com (Tom Bruhns) wrote:

>Free...HP1743A scope. The tube died. (The magic vacuum escaped!) It
>is possible to get replacement tubes, last time I checked. The scope
>was working well up till the tube died. Pick up in the
>Seattle/Everett area, or I'll ship for actual shipping cost plus $10
>packing fee.

Just out of curiosity, what's the B/W on that one, Tom?
--

"What is now proved was once only imagin'd." - William Blake, 1793.

434. Re: For magnet lovers...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-23 09:54:12 UTC
From: remove_ok1sip@atlas.cz
Message-ID: <5f5159fa.0406230154.243583ee@posting.google.com>
Source record: 25316
Cross-posted to: sci.electronics.design,sci.electronics.components,rec.radio.amateur.homebrew

> They are magic, aren't they? Have you tried the drop a magnet down a
> copper pipe trick?

Hi, see some more experiments at
http://www.scitoys.com/scitoys/scitoys/magnets/magnets.html#magnetism

BR from Ivan OK1SIP

435. Re: For magnet lovers...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-23 10:04:40 UTC
From: remove_ok1sip@atlas.cz
Message-ID: <5f5159fa.0406230204.36d9baba@posting.google.com>
Source record: 25317
Cross-posted to: sci.electronics.design,sci.electronics.components,rec.radio.amateur.homebrew

"Greysky" <greyskynospam@sbcglobal.net> wrote in message
news:<G_RBc.3475$Lu3.2606@newssvr25.news.prodigy.com>...
> ... My question is does anyone know of other sources
> either for Neodymium 'duper magnets', or strong ceramic magnets that I may
> be missing out on? Magnets like these come closest to being perpetual motion
> machines we have yet to make, and I'd hate to have some just wind up into
> the trash because I didn't know they were there :-)
>
> Thanks.!

A retail source of super strong magnets is at http://www.abcmagnet.cz/

BR from Ivan OK1SIP

436. Re: TS-520 Oscillator Problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-23 12:05:18 UTC
From: Eskay <spark_gap2000@yahoo.ca>
Message-ID: <vkxhh0hfgyvy$.98b5qp45b2uj.dlg@40tude.net>
Source record: 25318
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

On Tue, 22 Jun 2004 11:57:49 -0700, Tim Wescott wrote:

> Eskay wrote:
>
>> On Tue, 22 Jun 2004 10:09:12 -0700, Tim Wescott wrote:
>>
>>
>>>I have a Kenwood TS-520 sitting on my shelf with a severe VFO problem.
>>>The oscillator frequency intermittently goes unstable, when the
>>>oscillator doesn't cut out completely. The problem will go away if the
>>>tuning knob is bumped a bit, and it seems to be worse at the higher
>>>frequency portion of a band. The radio is unreliable for receiving, and
>>>is not good enough to even think about transmitting.
>>>
>>>Without having ripped into the oscillator yet, I am theorizing that
>>>there is a bad connection on the main tuning capacitor. Before I _do_
>>>tear things apart, I wanted to ask:
>>>
>>>1. Has anyone out there seen a similar problem? What did it end up being?
>>>
>>>2. The oscillator in this rig is well buried, and will take some
>>>careful disassembly to expose. Do any of you have a manual that details
>>>this operation, or have you done it yourself? I'm well capable of doing
>>>it as-is, but if there's a known best way to do it I'd like to start there.
>>>
>>>Thanks in advance.
>>
>>
>> Hi,,I am assuming that the VFO in the 520 is very similar to the one in the
>> TS 820 that I used to own.
>> The frequency counter did not always work in certain spots on the dial, and
>> of course the radio went dead at the same time.
>> I finally broke down and removed the VFO from the radio and opened the VFO
>> up. The main bearing of the tuning capacitor was not always making contact
>> because of dried up lubricant.
>> Don't remember for sure what I did to clean it, I used vaseline to
>> lubricate and reassembled the whole thing..It worked OK after that..
>> 73 de Sieb VE3JUA.
>
> That sounds very plausible. I got the radio at a hamfest, and I think I
> know why...
>
> Did you have any trouble getting the oscillator out, or was it just a

> matter of taking the usual care with such things? On my 520 it looks
> like I have to go through a few layers to get to the VFO case.

Not a great deal of trouble but be carefull to remember the sequence of removal..73 de Eskay.

437. Re: For magnet lovers...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-23 13:55:30 UTC
From: "Gary S." <Idontwantspam@net>
Message-ID: <2j2jd01c78voqp276b92vldpmef9j4mooj@4ax.com>
Source record: 25319
Cross-posted to: sci.electronics.design,sci.electronics.components,rec.radio.amateur.homebrew

On 23 Jun 2004 03:04:40 -0700, remove_ok1sip@atlas.cz (OK1SIP) wrote:

>"Greysky" <greyskynospam@sbcglobal.net> wrote in message
news:<G_RBc.3475$Lu3.2606@newssvr25.news.prodigy.com>...
>> ... My question is does anyone know of other sources
>> either for Neodymium 'duper magnets', or strong ceramic magnets that I may
>> be missing out on? Magnets like these come closest to being perpetual motion
>> machines we have yet to make, and I'd hate to have some just wind up into
>> the trash because I didn't know they were there :-)
>>
>> Thanks.!
>
>A retail source of super strong magnets is at http://www.abcmagnet.cz/
>
>BR from Ivan OK1SIP

In the US, Edmund Scientific at http://scientificsonline.com/ has long
been a good source for all sorts of science "toys" like magnets.

Happy trails,
Gary (net.yogi.bear)
---
at the 51st percentile of ursine intelligence

Gary D. Schwartz, Needham, MA, USA
Please reply to: garyDOTschwartzATpoboxDOTcom

438. Re: Low current crystal oscillator

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-23 16:19:57 UTC
From: Hans Summers <hans.summers@tudor.com>
Message-ID: <2jtoteF162nkfU1@uni-berlin.de>
Source record: 25320

> >
> > Many thanks Tim. I didn't realise 32KHz crystals were available. The
usual
> > 32768 wouldn't give the right timing but 32KHz is perfect. You actually
> > prototyped this and measured the current? Did this use an old 4060 or a
> > 74HC4060? What's the difference betweem families in terms of current
> > consumption? Also, how do these families compare to things like 74AC,
74ACT,
> > 74HCT? I know the T means TTL-compatible levels rather than the old CMOS
> > family compatible levels, but is the current consumption different too?
> >
> Normally I resist the urge to prototype things, but yesterday was slow
> and I could do this whole thing on a proto-board. I used a 4060, not a
> 74xCxxxx device. I have no idea how it'd play out on a xx4060, but with
> a 74HC04 and the watch crystal I was seeing 1.6mA, and with the 4060 I
> was seeing 32uA. This is an unfair test, because you're supposed to use
> the 74HCU04 for oscillators; I have no idea how much this affected
> things. I _did_ notice with the 74HC04 that running it at about 3V
> brought the current down to the 30-50uA region, however.
>
Ok thanks Tim, 32uA is great. I will stay with a 4060, I don't want to add
an extra IC just for the oscillator (e.g. 74HCU04).

> > Loads of questions I know. But this is fantastic as it will enable me to
> > reduce the current consumption of the thing to under 1.5mA. I hope I'm
right
> > in thinking that by replacing the LED switching transistor with a FET,
I'll
> > also save some current consumption because of eliminating the
base-emitter
> > current, but I'm not a FET expert.
> >
> It should save a bit, but with a good junction transistor you should
> only have to apply about 2-5% of the collector current to the base to
> get saturation. If you're using one of the old standbys you should look
> at newer transistors -- Zetex is good for this.

I was using a BC547. I'll look into a better alternative.

Thanks again

73 Hans G0UPL
http://www.HansSummers.com

439. Re: Low current crystal oscillator

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-23 16:20:32 UTC
From: Hans Summers <hans.summers@tudor.com>
Message-ID: <2jtougF15fc6mU1@uni-berlin.de>
Source record: 25321

"Paul_Morphy" <nopaul_morphy2@coolgoose.com> wrote in message
news:xXZBc.115778$Gx4.19895@bgtnsc04-news.ops.worldnet.att.net...
> If this Mouser part will work, you won't have to deal with a minimum
order.
>
>
http://www.mouser.com/index.cfm?handler=displayproduct&lstdisppproductid=562091&e_categoryi
d=438&e_pcodeid=69500
>
> In case the link doesn't work, it's Mouser Part #: 695-CFV206-32K . 32
> kHz, 12.5 pF.

Thanks Paul, I'm looking into this and a couple other alternatives.

73 Hans G0UPL
http://www.HansSummers.com

440. Re: Low current crystal oscillator

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-23 16:21:13 UTC
From: Hans Summers <hans.summers@tudor.com>
Message-ID: <2jtovpF15o9utU1@uni-berlin.de>
Source record: 25322

> ========
> Hans , May I suggest you check supply of above with Mode
> Components -Birmingham, small company (no VAT)
> sales@modecomponents.co.uk
www.modecomponents.co.uk

I checked Frank, they don't sell 32KHz. Only 32.768, and I have loads of
those falling out of my junk box already!

73 Hans G0UPL
http://www.HansSummers.com

441. Re: Low current crystal oscillator

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-23 16:22:05 UTC
From: Hans Summers <hans.summers@tudor.com>
Message-ID: <2jtp1dF159trsU1@uni-berlin.de>
Source record: 25323

```
>
> I think their exact frequency is 32,768 (= 2**15) Hz, so that dividing
> by 2, 15 times will count seconds. If this will work for you then
> buying one of them might be a very cost effective way to pick one up
> easily. If you can't find one there, I think I have one which I
> salvaged out of a dead watch.

Thanks for the offer Jim, I have quite a few of those crystals already, but
they aren't suitable for this application which requires 32KHz not 32.768.

73 Hans G0UPL
http://www.HansSummers.com
```

442. Re: For magnet lovers...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-23 16:32:27 UTC
From: don@manx.misty.com
Message-ID: <slrncdjc4r.g2.don@manx.misty.com>
Source record: 25324
Cross-posted to: sci.electronics.design,sci.electronics.components,rec.radio.amateur.homebrew

```
In article <cbae9k$8go$1@newshost.mot.com>, Steve Nosko wrote:
>
>"Paul_Morphy" <nopaul_morphy2@coolgoose.com> wrote in message
>news:Lg1Cc.116751$Gx4.75197@bgtnsc04-news.ops.worldnet.att.net...
>>
>> "JW" <none@dev.nul> wrote in message
>> news:fnsgd0tq5phgvr0n5vec67tfcv90pecrqm@4ax.com...
>> > On Tue, 22 Jun 2004 13:06:08 GMT sjnoll@dontspambig-list.com (Steve J.
>> > Noll) wrote in Message id: <40d82de5.941789@news.east.earthlink.net>:
>> >
>> > >Have you tried the drop a magnet down a
>> > >copper pipe trick?
>> >
>> > I'll bite. What happens?
>>
>> I'm guessing some EMF is induced.
>
>
>...and... continue with the line of reasoning...
>
> What does that EMF produce and where?...

Current in a closed loop or two in the pipe, and heat in the pipe.

- Don Klipstein (don@misty.com)
```

443. Re: Free: HP1743A scope "for parts"

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-23 17:10:41 UTC
From: k7itm@aol.com
Message-ID: <3200347.0406230910.45f74867@posting.google.com>
Source record: 25325
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew,sci.electronics.design

Paul Burridge <pb@notthisbit.osiris1.co.uk> wrote in message
news:<pikid0123jqnbl2v2rtsf8soebhj0ob7rs@4ax.com>...
> On 22 Jun 2004 23:35:05 -0700, k7itm@aol.com (Tom Bruhns) wrote:
>
> >Free...HP1743A scope. ...

> Just out of curiosity, what's the B/W on that one, Tom?

100MHz; it has a nice readout of the delay for measuring things like
pulse width and repitition rate.

444. Ic-7800 2nd mixer design question

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-23 20:22:24 UTC
From: hello <hello@nospam.com>
Message-ID: <JCICc.53684$zm5.28054@nntpserver.swip.net>
Source record: 25326
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.equipement

I have a question about the design of 2nd mixer in the IC-7800.
From : http://www.icom.co.jp/world/products/amateur/7800/index.htm
man could see that Icom use an oscillator with outputs in quadrature and
then sum the mixer outputs after a 90ï¿½ phase shifter.

What I don't understand , is why do they do the 90ï¿½ phase shift in the
analog domain ?
Using 2 mixers with a quadrature oscillator is very common in the DSP
world (IQ demodulation). But in general , it's followed by 2 A/D
converters and if phase shift is needed to reject a side band, it's done
digitaly...
I don't think that Icom choose this design just to save an A/D in the
IC-7800 ....

any clues ?

Thierry
F4DWV

445. Re: Ic-7800 2nd mixer design question

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-23 21:09:06 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <cbcrlp$m2a$1@newshost.mot.com>
Source record: 25327
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.equipement

Hmmm. I haven't studied 'em, but is this an image canceling mixer? I recently ran across an article about them (don't even remember where), but didn't look closely enough to understand it. Probably the same as the phasing method of SSB generation. Now, where the heck was that???...

--
Steve N, K,9;d, c. i My email has no u's.

"hello" <hello@nospam.com> wrote in message
news:JCICc.53684$zm5.28054@nntpserver.swip.net...
>
> I have a question about the design of 2nd mixer in the IC-7800.
> From : http://www.icom.co.jp/world/products/amateur/7800/index.htm
> man could see that Icom use an oscillator with outputs in quadrature and
> then sum the mixer outputs after a 90° phase shifter.
>
> What I don't understand , is why do they do the 90° phase shift in the
> analog domain ?
> Using 2 mixers with a quadrature oscillator is very common in the DSP
> world (IQ demodulation). But in general , it's followed by 2 A/D
> converters and if phase shift is needed to reject a side band, it's done
> digitaly...
> I don't think that Icom choose this design just to save an A/D in the
> IC-7800 ....
>
> any clues ?
>
> Thierry
> F4DWV

446. WTB: McMurdo Silver 5C manual/info

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-23 22:18:46 UTC
From: Heytubeguy <heytubeguy@worldnet.att.net>
Message-ID: <alnCc.123713$Gx4.93948@bgtnsc04-news.ops.worldnet.att.net>
Source record: 25328

Anyone have a manual, info, or good diagram/parts list, pse advise, tnx
WS�E, JOE

447. Re: For magnet lovers...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-23 22:36:11 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <cbd0p2$n0j$1@newshost.mot.com>
Source record: 25331
Cross-posted to: sci.electronics.design,sci.electronics.components,rec.radio.amateur.homebrew

"Don Klipstein" <don@manx.misty.com> wrote in message
news:slrncdjc4r.g2.don@manx.misty.com...
> In article <cbae9k$8go$1@newshost.mot.com>, Steve Nosko wrote:
> >
> >"Paul_Morphy" <nopaul_morphy2@coolgoose.com> wrote in message
> >news:Lg1Cc.116751$Gx4.75197@bgtnsc04-news.ops.worldnet.att.net...
> >>
> >> "JW" <none@dev.nul> wrote in message
> >> news:fnsgd0tq5phgvr0n5vec67tfcv90pecrqm@4ax.com...
> >> > On Tue, 22 Jun 2004 13:06:08 GMT sjnoll@dontspambig-list.com (Steve
J.
> >> > Noll) wrote in Message id: <40d82de5.941789@news.east.earthlink.net>:
> >> >
> >> > >Have you tried the drop a magnet down a
> >> > >copper pipe trick?
> >> >
> >> > I'll bite. What happens?
> >> I'm guessing some EMF is induced.
> >
> >
> >...and... continue with the line of reasoning...
> >
> > What does that EMF produce and where?...
>
> Current in a closed loop or two in the pipe, and heat in the pipe.

Back up a bit. What does the current in a loop produce well before the heat
builds up?...
--
Steve N, K,9;d, c. i My email has no u's.

448. Re: For magnet lovers...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-23 22:47:45 UTC
From: Ken Scharf <wa2mzeNOTTHIS@bellsouth.net>
Message-ID: <2HnCc.4226$EK5.1824@bignews3.bellsouth.net>
Source record: 25329
Cross-posted to: sci.electronics.design,sci.electronics.components,rec.radio.amateur.homebrew

Steve Nosko wrote:
> "Paul_Morphy" <nopaul_morphy2@coolgoose.com> wrote in message
> news:Lg1Cc.116751$Gx4.75197@bgtnsc04-news.ops.worldnet.att.net...
>
>>"JW" <none@dev.nul> wrote in message
>>news:fnsgd0tq5phgvr0n5vec67tfcv90pecrqm@4ax.com...
>>
>>>On Tue, 22 Jun 2004 13:06:08 GMT sjnoll@dontspambig-list.com (Steve J.
>>>Noll) wrote in Message id: <40d82de5.941789@news.east.earthlink.net>:
>>>
>>>
>>>>Have you tried the drop a magnet down a
>>>>copper pipe trick?
>>>
>>>I'll bite. What happens?
>>
>>I'm guessing some EMF is induced.
>
>
>
> ...and... continue with the line of reasoning...
>
> What does that EMF produce and where?...
>
Hmmm, sorta like a rail gun in reverse?

449. Re: For magnet lovers...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-23 23:00:50 UTC
From: Rick <rick@skyko.com>
Message-ID: <CYnCc.23857$Yb1.21921@nwrddc02.gnilink.net>
Source record: 25330
Cross-posted to: sci.electronics.design,sci.electronics.components,rec.radio.amateur.homebrew

"Greysky" <greyskynospam@sbcglobal.net> wrote in message
news:G_RBc.3475$Lu3.2606@newssvr25.news.prodigy.com...
> ever since I was a child, magnets have held a fascination for me. I've been
> collecting them ever since. It used to be that you could always scrounge
> loudspeakers for Alnico magnets. Then when the newer ceramic magnets began
> to be incorporated into loudspeakers, it became a challenge to remove them
> from their enclosures without breaking them. Now, I have to admit, I am
> having a ball collecting the new 'super magnets' - like the ones inside hard
> drives. There are also cool cylindrical magnets that you can get from inside
> the heads of VHS machines. My question is does anyone know of other sources
> either for Neodymium 'duper magnets', or strong ceramic magnets that I may
> be missing out on? Magnets like these come closest to being perpetual motion
> machines we have yet to make, and I'd hate to have some just wind up into
> the trash because I didn't know they were there :-)
>
> Thanks.!
>
>

not that you would want to destroy one, but some PMI servo disk motors have six
to eight very large cylindrical rare earth magnets in them. IIRC they are about
1.5 inch diameter by 1/4 inch thick or so. I had one with a bad disk that
yeilded some of these a few years back.

450. Re: For magnet lovers...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-23 23:15:28 UTC
From: Rich Grise <null@example.net>
Message-ID: <kaoCc.13602$mG4.6840@nwrddc03.gnilink.net>
Source record: 25332
Cross-posted to: sci.electronics.design,sci.electronics.components,rec.radio.amateur.homebrew

```
"Don Klipstein" <don@manx.misty.com> wrote in message
news:slrncdhstp.kid.don@manx.misty.com...
> In article <40D8E653.6FE89C84@optonline.net>, Steve wrote:
> >
> >--------------9002068B3CF78CE28C8CE7B3
> >Content-Type: text/plain; charset=us-ascii
> >Content-Transfer-Encoding: 7bit
> >
> >what does it do??
> >
> >> >>They are magic, aren't they? Have you tried the drop a magnet down a
> >> >>copper pipe trick?
>
> The magnet moving down the pipe induces eddy currents. These eddy
> currents produce an electromagnetic force that resists the movement of the
> magnet (with respect to the pipe) and does so to an extent varying
> directly with the speed at which the magnet is moving. This slows down
> the magnet.
>
> At least this is what I have heard.
>
> And aluminum tubes do this also, just not quite as much as copper ones
> do. And I have seen aluminum tube stock.
>
> Most other metals do this less, but I imagine that iron and lead pipes
> may slow the fall of a close-fitting "rare earth magnet" a little in
> comparison to nonconductive pipes.
>

I imagine an iron pipe would slow its fall speed to zero.

;-)
```

451. Receiving DRM with the DX-394

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-24 00:20:04 UTC
From: Tom Holden <holden_family@sympatico.ca>
Message-ID: <A1pCc.29959$Nz.1448480@news20.bellglobal.com>
Source record: 25333
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.shortwave

The DX-394 can be readily adapted to have a 3rd IF at 12kHz to feed a computer sound card with which free software can decode DRM transmissions. Jan Terpstra has designed a two transistor 455kHz-to-12kHz "quick and dirty" converter that he and I have built. Today I successfully received DRM transmissions from Sackville using the DX-394 with the converter and the free DReaM software running on a Celeron 450MHz computer.

The DReaM software is intriguing in its own right and is capable of doing AM and SSB demodulation from the 12kHz IF using DSP. Remarkably, I think it excels the stock AM demodulator at very weak signal reception and provides selectable bandwidth in 1kHz steps from 1 to 15 kHz.

For more on DRM on the DX-394 visit/join
http://groups.yahoo.com/group/RADIOSHACKDX394/ .

Tom

452. Re: Ic-7800 2nd mixer design question

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-24 02:13:11 UTC
From: et472@FreeNet.Carleton.CA
Message-ID: <cbddbnfun1@freenet9.carleton.ca>
Source record: 25334

hello (hello@nospam.com) writes:
> I have a question about the design of 2nd mixer in the IC-7800.
> From : http://www.icom.co.jp/world/products/amateur/7800/index.htm
> man could see that Icom use an oscillator with outputs in quadrature and
> then sum the mixer outputs after a 90° phase shifter.
>
> What I don't understand , is why do they do the 90° phase shift in the
> analog domain ?
> Using 2 mixers with a quadrature oscillator is very common in the DSP
> world (IQ demodulation). But in general , it's followed by 2 A/D
> converters and if phase shift is needed to reject a side band, it's done
> digitaly...
> I don't think that Icom choose this design just to save an A/D in the
> IC-7800 ....
>
> any clues ?
>
> Thierry
> F4DWV

This may be an issue of design philosophy.

That stage is doing a conversion down to a very low IF (it's not clear
what frequency from the block diagram), and is presumably low enough that
the image is within the roofing filter passband. Narrowing the roofing
filter might be problematic (because it would limit the available bandwidth,
or because it's too costly to have a narrower roofing filter), but they need
to knock out the image caused by that second mixer. By using phasing,
it attenuates the unwanted image, in the same way that phasing techniques
can knock out the unwanted sideband when generating SSB.

Perhaps they want a linear signal, notice there is an IF stage
after the summing from that second conversion stage, and by doing it
digitally they'd have a digital signal, or be forced
to convert back to analog.

Maybe they didn't want to A/D stages?

Michael VE2BVW

453. Re: help identify: Varian VMC-1680 (5.5 GHz oscillator; Magnetron? Klystron?)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-24 03:18:49 UTC
From: * <*@*.com>
Message-ID: <2juvg0F162478U1@uni-berlin.de>
Source record: 25335

I have a Varian Reflex Klystron (NIB) has 4 wires 3 out the top one gray out the bottom, with a window in the middle, (unit must drop through a hole in a waveguide?) wires are thick. Takes 2 wires for heater, one for beam and one for reflector (Varian V-152B)
Data sheet has 6.3V heater @1.15A Beam Voltage 250Vdc and Beam Current at 25ma, and reflector at 104Vdc. get a 5.5mW output at ?? frequancy. Varian had a place in Palo Alto Tube Division of Varian Association.

heater wires are yellow, Cathode is green, body is brown and reflector is gray(neg voltage too)

Also have a "Bomac BL820", same kind of wiring, but with a waveguide output, tunable. NOS

Yours - Magnetic means it has a circulator in it, could be a type that gets interrigated.
Magnetic - magnetron?
Some of the bricks take +15 and -12 small bias current, and
ground make 3 wires

Good luck - may be out there. I'm still looking for frequency info on "Bomac BL820", and Varian V-152B

"peter dingemans" <peter_dingemans@hotmail.com> wrote in message
news:195e9be4.0406220511.557db4fc@posting.google.com...
> G'day everyone,
>
> A while ago I acquired a piece of equipment, a beacon transponder on
> 5480 MHz (TX). In it is a 'block' that seems to be the oscillator for
> TX:
>
> type nr. is 'VMC-1680'
> made by Varian/beverly
> date code 88236
>
> the sizes of it are 35*55*31 mm; it's magnetic; the output is SMA.
>
> There's a caution on it to keep it at least 4" away from magnets.
> 3 wires come out of it: red, black and grey. None of them seem to be
> HV-rated, so my original guess of a Magnetron or Klystron seem to be
> wrong.
>
>
> I wonder if it's possible to use it for Ham-purposes (it seems
> tunable, and the 5,7 GHz hamband is very nearby...)
>

> Anyway, does anyone have ANY info on it? I.e., what IS it, freq.
> range, power, inputs (voltages, currents), etc. A datasheet would be
> VERY nice, if it exists... (I already contacted Varian/Eimac (CPII),
> but nothing came up :-( )
> Any help is GREATLY appreciated.
>
>
> Sincerely,
>
> Peter Dingemans,
> The Netherlands.
> NB: please also mail any replies to this group to me directly,
> peter_dingemans@hotmail.com I try to regularly check this group, but
> only have limited web access.

454. Re: help identify: Varian VMC-1680 (5.5 GHz oscillator; Magnetron? Klystron?)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-24 03:32:23 UTC
From: * <*@*.com>
Message-ID: <2jv09pF15k6c0U1@uni-berlin.de>
Source record: 25336

checkout http://www.tubecollector.org/

455. XR2206 sweep generator problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-24 04:52:54 UTC
From: stuart.ferguson@adilam.com.au
Message-ID: <7d93334d.0406232052.2436c986@posting.google.com>
Source record: 25337

Hi All...

I am having problems getting the XR2206 from EXAR to sweep with a ramp voltage. I have the XR2206 configured as per fig10. in the datasheet, and I want to sweep from around 975kHz to 1025kHz. (centre frequency 1MHz).

I am sweeping with ramp signal at 33Hz, +/- 2 volts centred on zero, but when i apply the ramp voltage to resistor at pin 7, the ramp is offset by about 1 volt and is distorted. Is this normal? I am only getting a couple of MHz of sweep, way lower than my goal...

What am I doing wrong? Any ideas...?

456. Free: 150MHz mobile FM amp; LM13 freq meter

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-24 05:04:16 UTC
From: k7itm@aol.com
Message-ID: <3200347.0406232104.44fdb729@posting.google.com>
Source record: 25338
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew

Hi all,

More free stuff. Pick up in the Seattle/Everett area, or pay for
packing and shipping:

RCA CT2015 "TACTEC Power Booster" -- 13VDC amplifier for FM service.
Data probably available somewhere, but not too hard to figure out.
UHF connectors in and out.

LM-13 hetrodyne frequency meter; Navy's version of the BC-221. Has
120VAC power supply attached, and has the original calibration manual.
Covers 125kHz to 20MHz (probably useable to 32 or 40MHz; it's
harmonics of the 2-4MHz VFO range.)

Cheers,
Tom

457. Free: HP8444A tracking generator

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-24 05:10:02 UTC
From: k7itm@aol.com
Message-ID: <3200347.0406232110.1019ff1b@posting.google.com>
Source record: 25339
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew,sci.electronics.design

Hi all,

More free stuff: an HP8444A tracking generator for use with an HP spectrum analyzer... 0.5-1300MHz output. No options added to this one. Pick up in the Seattle/Everett area, or pay packing plus shipping.

If your reading this in sci.electronics.design, you might also want to check rec.radio.amateur.boatanchors for some other free items I've only listed in the ham groups: transformers, a VHF FM mobile amplifier, and an LM-13 hetrodyne freq meter.

Cheers,
Tom

458. Free: HP8444A tracking generator

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-24 05:10:25 UTC
From: k7itm@aol.com
Message-ID: <3200347.0406232110.3c496ff4@posting.google.com>
Source record: 25340
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew,sci.electronics.design

Hi all,

More free stuff: an HP8444A tracking generator for use with an HP spectrum analyzer... 0.5-1300MHz output. No options added to this one. Pick up in the Seattle/Everett area, or pay packing plus shipping.

If your reading this in sci.electronics.design, you might also want to check rec.radio.amateur.boatanchors for some other free items I've only listed in the ham groups: transformers, a VHF FM mobile amplifier, and an LM-13 hetrodyne freq meter.

Cheers,
Tom

459. Free: HP8444A tracking generator

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-24 05:10:55 UTC
From: k7itm@aol.com
Message-ID: <3200347.0406232110.e00e3b8@posting.google.com>
Source record: 25341
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew,sci.electronics.design

Hi all,

More free stuff: an HP8444A tracking generator for use with an HP spectrum analyzer... 0.5-1300MHz output. No options added to this one. Pick up in the Seattle/Everett area, or pay packing plus shipping.

If your reading this in sci.electronics.design, you might also want to check rec.radio.amateur.boatanchors for some other free items I've only listed in the ham groups: transformers, a VHF FM mobile amplifier, and an LM-13 hetrodyne freq meter.

Cheers,
Tom

460. Re: Free: HP1743A scope "for parts"

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-24 11:18:14 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <hudld0dlailkutnno37s3ouk71lam28dhk@4ax.com>
Source record: 25342
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew,sci.electronics.design

On 23 Jun 2004 10:10:41 -0700, k7itm@aol.com (Tom Bruhns) wrote:

>Paul Burridge <pb@notthisbit.osiris1.co.uk> wrote in message
news:<pikid0123jqnbl2v2rtsf8soebhj0ob7rs@4ax.com>...
>> On 22 Jun 2004 23:35:05 -0700, k7itm@aol.com (Tom Bruhns) wrote:
>>
>> >Free...HP1743A scope. ...
>
>> Just out of curiosity, what's the B/W on that one, Tom?
>
>100MHz; it has a nice readout of the delay for measuring things like
>pulse width and repitition rate.

Bugger. Sounds ideal for my harmonic generation experiments. Pity
you're in the States. I guess the shipping would be a bit steep.
Whatever you do, though, Tom; don't throw it away! I rescue old scopes
on this side of the pond and might swallow the shipping fee rather
than see it end up in a dumpster (always a tragedy). How much does it
weigh?
--

"What is now proved was once only imagin'd." - William Blake, 1793.

461. Re: Receiving DRM with the DX-394

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-24 13:36:37 UTC
From: Panzer240 <panzer240@hotmail.com>
Message-ID: <Xns95126BEAB6857fw190a8@142.77.1.194>
Source record: 25343
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.shortwave

"-=jd=-" <jd770YOUR@HATpostmark.net> wrote in
news:Xns9511DA3A2D36Ea216b130c132d203@63.218.45.22:

> On Wed 23 Jun 2004 07:20:04p, "Tom Holden" <holden_family@sympatico.ca>
> wrote in message news:A1pCc.29959$Nz.1448480@news20.bellglobal.com:
>
>> The DX-394 can be readily adapted to have a 3rd IF at 12kHz to feed a
>> computer sound card with which free software can decode DRM
>> transmissions. Jan Terpstra has designed a two transistor
>> 455kHz-to-12kHz "quick and dirty" converter that he and I have built.
>> Today I successfully received DRM transmissions from Sackville using
>> the DX-394 with the converter and the free DReaM software running on a
>> Celeron 450MHz computer.
>>
>> The DReaM software is intriguing in its own right and is capable of
>> doing AM and SSB demodulation from the 12kHz IF using DSP. Remarkably,
>> I think it excels the stock AM demodulator at very weak signal
>> reception and provides selectable bandwidth in 1kHz steps from 1 to 15
>> kHz.
>>
>> For more on DRM on the DX-394 visit/join
>> http://groups.yahoo.com/group/RADIOSHACKDX394/ .
>>
>> Tom
>>
>

I have two of these and have started scrounging :) In the mean time my
PCR-1000 may also be useful ;)

>
> With an unmodified ICOM PCR-1000 radio and the Dream software, I was
> able to decode the RNW broadcast out of Bonaire on LSB by tuning up
> about 5k, purely by accident. I also had to "reverse" the signal (a
> config setting within the Dream software).
>
> I was actually to the point where I thought it wouldn't work and had
> left the Dream software running while I tuned around a bit just to get a
> better feel for the sound of the raw stream...
>
> Now, It did not decode it flawlessly - it would only decode about 5 to
> 10 seconds before dropping out for a bit. But the audio I heard was
> comparable to listening to NPR on a local FM station.
>

> There's a kit I could get for about $25USD that would modify the 1st IF
> to 12kHz (I think that's what it was), but I don't want to mod my
> receiver.
>
> In any event, the bits I was able to hear sounded great.
>
> -=jd=-
>
>

Interesting !!!!! Just downloaded the Dream software and have begun playing with it :) The Drm station I can hear at the moment are not very stron, but managed to get a snippet of things to come I hope !!!. You might also try using th packet output from you PCR. I seem to be able to get partial recognition of the signal from eithe port on the RX. Would ne nice if the software supported the RX though to make at least inital tuning from station view work :)

--
Panzer

462. FA: 12 VDC Relays & Switches & Service Manuals

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-24 14:26:36 UTC
From: Norm VE3CZI <ve3czi@arrl.net>
Message-ID: <dxBCc.17383$XY6.2017187@read2.cgocable.net>
Source record: 25344
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.swap

I have some Hvy Duty 12VDC Relays & Switches on ebay.....Good for turning on Equipment in Vehicle or switching Ladder Line (sold some for that use).
http://cgi.ebay.ca/ws/eBayISAPI.dll?ViewItem&item=5705792541&sspagename=STRK%3AMESE%3AIT&rd=1
Thank You for looking.....73...Norm VE3CZI

463. High Voltage Components from microwave ovens

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-24 14:30:27 UTC
From: Albert <pass@pass.com>
Message-ID: <2gjld05tq6bcqg96m82r5mc3cvre2gcj9p@4ax.com>
Source record: 25345
Cross-posted to: sci.electronics.repair,rec.radio.amateur.homebrew

Are old high voltage components from microwave ovens useful, or should
I chuck them out in the trash?

I have several transformers that look like they are good for quite a
few watts of power, some of the high voltage diodes and several
blowers. I've been saving them.

Can they be used for power supplies for rf transmitters? Are the
blowers any good for cooling large tubes in transmitters?

Thanks,

Al

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

464. Re: Tektronix 497P 100 Hz-21 GHz spectrum analyzer

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-24 15:38:39 UTC
From: SioL <nospam@die-spammers.com>
Message-ID: <1BCCc.5610$37.732373@news.siol.net>
Source record: 25346
Cross-posted to: misc.industry.electronics.marketplace,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

Thanks!

Siol

"KL&#65533;S" <kl0s@cox.net> wrote in message news:BCFA2AC5.4DF3B%kl0s@cox.net...
> I've had very good luck getting Tek manuals from Deane Kidd...send him a
> note at:
>
> dektyr@teleport.com
>
> and see if he might have the manuals you're looking for.
>
> Good Luck!
>
> Dino KL&#65533;S/4
>
>

465. Re: Tektronix 497P 100 Hz-21 GHz spectrum analyzer

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-24 15:39:20 UTC
From: SioL <nospam@die-spammers.com>
Message-ID: <7BCCc.5611$37.732373@news.siol.net>
Source record: 25247
Cross-posted to: misc.industry.electronics.marketplace,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

"John Miles" <jmiles@pop.removethistomailme.net> wrote in message
news:MPG.1b3e574bc7523db9896c6@news-central.giganews.com...
In article <BCFA2AC5.4DF3B%kl0s@cox.net>, kl0s@cox.net says...
> I've had very good luck getting Tek manuals from Deane Kidd...send him a
> note at:
>
> dektyr@teleport.com
>
> and see if he might have the manuals you're looking for.
>
> Good Luck!
>
> Dino KL&#65533;S/4

Good point; he came up dry when I asked him about 497P manuals but he
may well have some for the 496. I bought a brand-new set of 494AP
manuals from him a couple of years ago.

He might have a keyboard controller, for that matter.

-- jm

I still think its not broken since everything works. Except if one of the ports controls
that led
as well.

SioL

466. Re: High Voltage Components from microwave ovens

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-24 16:52:08 UTC
From: W3JDR <joe@roccis.com>
Message-ID: <YEDCc.3266$A9.1198@nwrdny01.gnilink.net>
Source record: 25248
Cross-posted to: sci.electronics.repair,rec.radio.amateur.homebrew

Some years ago, there was an article in one of the ham mags about converting microwave ovens into high power microwave ham transmitters. It might give some helpful background info. Unfortunately I can't remember the timeframe or which mag ran it. Maybe someone else in the group can remember???

Joe
W3JDR

"Albert" <pass@pass.com> wrote in message
news:2gjld05tq6bcqg96m82r5mc3cvre2gcj9p@4ax.com...
> Are old high voltage components from microwave ovens useful, or should
> I chuck them out in the trash?
>
> I have several transformers that look like they are good for quite a
> few watts of power, some of the high voltage diodes and several
> blowers. I've been saving them.
>
> Can they be used for power supplies for rf transmitters? Are the
> blowers any good for cooling large tubes in transmitters?
>
> Thanks,
>
> Al
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 100,000 Newsgroups - 19 Different Servers! =-----

467. Re: Free: HP8444A tracking generator

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-24 17:16:20 UTC
From: k7itm@aol.com
Message-ID: <3200347.0406240916.24f2eff3@posting.google.com>
Source record: 25249
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew,sci.electronics.design

8444 is no longer available.

Cheers,
Tom

k7itm@aol.com (Tom Bruhns) wrote in message
news:<3200347.0406232110.e00e3b8@posting.google.com>...
> Hi all,
>
> More free stuff: an HP8444A tracking generator for use with an HP
> spectrum analyzer... 0.5-1300MHz output. No options added to this
> one. Pick up in the Seattle/Everett area, or pay packing plus
> shipping.
>
> If your reading this in sci.electronics.design, you might also want to
> check rec.radio.amateur.boatanchors for some other free items I've
> only listed in the ham groups: transformers, a VHF FM mobile
> amplifier, and an LM-13 hetrodyne freq meter.
>
> Cheers,
> Tom

468. Re: Free: HP8444A tracking generator

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-24 17:34:11 UTC
From: Gary Schafer <gaschafer@comcast.net>
Message-ID: <v14md01g4egtv9a5otb3qchcp55tbcudh0@4ax.com>
Source record: 25250

Hi Tom,

I will take the tracking generator off your hands if you can ship it
to me. Let me know what you need.

Thanks!

Gary K4FMX

On 23 Jun 2004 22:10:02 -0700, k7itm@aol.com (Tom Bruhns) wrote:

>Hi all,
>
>More free stuff: an HP8444A tracking generator for use with an HP
>spectrum analyzer... 0.5-1300MHz output. No options added to this
>one. Pick up in the Seattle/Everett area, or pay packing plus
>shipping.
>
>If your reading this in sci.electronics.design, you might also want to
>check rec.radio.amateur.boatanchors for some other free items I've
>only listed in the ham groups: transformers, a VHF FM mobile
>amplifier, and an LM-13 hetrodyne freq meter.
>
>Cheers,
>Tom

469. Re: High Voltage Components from microwave ovens

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-24 17:40:34 UTC
From: Sam Goldwasser <sam@saul.cis.upenn.edu>
Message-ID: <6wu0x0hn1p.fsf@saul.cis.upenn.edu>
Source record: 25251
Cross-posted to: sci.electronics.repair,rec.radio.amateur.homebrew

The transformer is good for 1500 to 2500 VRMS at 0.5 A or more.

More info at:

http://www.repairfaq.org/sam/gadget.htm#gadmot

--- sam | Sci.Electronics.Repair FAQ Home Page: http://www.repairfaq.org/
Repair | Main Table of Contents: http://www.repairfaq.org/REPAIR/
+Lasers | Sam's Laser FAQ: http://www.repairfaq.org/sam/lasersam.htm
| Mirror Site Info: http://www.repairfaq.org/REPAIR/F_mirror.html

Important: Anything sent to the email address in the message header is ignored.
To contact me, please use the feedback form on the S.E.R FAQ Web sites.

"W3JDR" <joe@roccis.com> writes:

> Some years ago, there was an article in one of the ham mags about converting
> microwave ovens into high power microwave ham transmitters. It might give
> some helpful background info. Unfortunately I can't remember the timeframe
> or which mag ran it. Maybe someone else in the group can remember???
>
> Joe
> W3JDR
>
> "Albert" <pass@pass.com> wrote in message
> news:2gjld05tq6bcqg96m82r5mc3cvre2gcj9p@4ax.com...
> > Are old high voltage components from microwave ovens useful, or should
> > I chuck them out in the trash?
> >
> > I have several transformers that look like they are good for quite a
> > few watts of power, some of the high voltage diodes and several
> > blowers. I've been saving them.
> >
> > Can they be used for power supplies for rf transmitters? Are the
> > blowers any good for cooling large tubes in transmitters?
> >
> > Thanks,
> >
> > Al

470. Re: Ic-7800 2nd mixer design question

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-24 18:28:34 UTC
From: hello <hello@nospam.com>
Message-ID: <W1FCc.53848$zm5.28299@nntpserver.swip.net>
Source record: 25252
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.equipement

Steve Nosko wrote:
> Hmmm. I haven't studied 'em, but is this an image canceling mixer? I
> recently ran across an article about them (don't even remember where), but
> didn't look closely enough to understand it. Probably the same as the
> phasing method of SSB generation. Now, where the heck was that???...
>

Yes that's it, often use in direct conversion receiver or digital radio
front end.

> Michael Black wrote:

>> That stage is doing a conversion down to a very low IF (it's not clear
>> what frequency from the block diagram), and is presumably low enough that
>> the image is within the roofing filter passband. Narrowing the roofing
>> filter might be problematic (because it would limit the available bandwidth,
>> or because it's too costly to have a narrower roofing filter), but they need
>> to knock out the image caused by that second mixer. By using phasing,
>> it attenuates the unwanted image, in the same way that phasing techniques
>> can knock out the unwanted sideband when generating SSB.

Yes, it's why man use this sort of design.
But yet again, why not doing the phasing in the digital domain with all
the DSP power behind , it must not be a problem

>> Maybe they didn't want to A/D stages?

Considering the price of the rig , it seems strange.
Perhap's they need vere very very good a/d converter and so 2 will be
too expensive.
Do someone know what do they use as A/D ?
(by the way, it's amusing to see how the marketing speak a lot about the
dsp specs and not the quality of the A/D which is more important and
problematic ...)

Thierry
F4DWV

471. Re: Receiving DRM with the DX-394

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-24 19:41:14 UTC
From: Al - KA5JGV <aburzynski@nojunk.swri.edu>
Message-ID: <10dmbivei2t2a6f@corp.supernews.com>
Source record: 25253
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.shortwave

"Tom Holden" <holden_family@sympatico.ca> wrote in message
news:A1pCc.29959$Nz.1448480@news20.bellglobal.com...
AM demodulator at very weak signal reception and provides
> selectable bandwidth in 1kHz steps from 1 to 15 kHz.
> Tom

Tom, how are you adjusting the bandwidth in 1kHz steps with the software?

Thanks.

Al KA5JGV
San Antonio, Tx.

472. Kenwood TK701S help

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-24 20:00:34 UTC
From: Theo <theodore.twyler@ntlworld.com>
Message-ID: <QhHCc.3509$pE6.155@newsfe4-gui>
Source record: 25254

I need the cicuit diagram for a Kenwood (TRIO) TK701S
PMR transceiver which I am aiming to put on 2m.
Can anyone help?
I have searched the web but no joy.
Any assistance greatly appreciated.

Theo

473. Re: High Voltage Components from microwave ovens

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-24 20:04:25 UTC
From: Theo <theodore.twyler@ntlworld.com>
Message-ID: <slHCc.3524$pE6.82@newsfe4-gui>
Source record: 25255
Cross-posted to: sci.electronics.repair,rec.radio.amateur.homebrew

"Sam Goldwasser" <sam@saul.cis.upenn.edu> wrote in message
news:6wu0x0hn1p.fsf@saul.cis.upenn.edu...
> The transformer is good for 1500 to 2500 VRMS at 0.5 A or more.

I would check to see if these transformers are continuously rated, I seem to recall they are rated for intermittent use only.

Theo

474. Re: Free: HP1743A scope "for parts"

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-24 20:22:28 UTC
From: k7itm@aol.com
Message-ID: <3200347.0406241222.319ca5df@posting.google.com>
Source record: 25256
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew,sci.electronics.design

Scope is spoken for by someone nearby who has a working one. That's
an appropriate use of this scope since the tube is fairly expensive.

Cheers,
Tom

who will undoubtedly have some more goodies for free soon. Stay
tuned.

Paul Burridge <pb@notthisbit.osiris1.co.uk> wrote in message
news:<hudld0dlailkutnno37s3ouk71lam28dhk@4ax.com>...
> On 23 Jun 2004 10:10:41 -0700, k7itm@aol.com (Tom Bruhns) wrote:
>
> >Paul Burridge <pb@notthisbit.osiris1.co.uk> wrote in message
news:<pikid0123jqnbl2v2rtsf8soebhj0ob7rs@4ax.com>...
> >> On 22 Jun 2004 23:35:05 -0700, k7itm@aol.com (Tom Bruhns) wrote:
> >>
> >> >Free...HP1743A scope. ...
>
> >> Just out of curiosity, what's the B/W on that one, Tom?
> >
> >100MHz; it has a nice readout of the delay for measuring things like
> >pulse width and repitition rate.
>
> Bugger. Sounds ideal for my harmonic generation experiments. Pity
> you're in the States. I guess the shipping would be a bit steep.
> Whatever you do, though, Tom; don't throw it away! I rescue old scopes
> on this side of the pond and might swallow the shipping fee rather
> than see it end up in a dumpster (always a tragedy). How much does it
> weigh?

475. Re: Receiving DRM with the DX-394

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-24 21:14:04 UTC
From: raqueebh@yahoo.com
Message-ID: <2545b34c.0406241314.5d58b4e5@posting.google.com>
Source record: 25257
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.shortwave

Hello there!

Does anyone know if there is any service targeting Africa, the mid africa. I have a Sony ICF 7600D .... I've that modification manual for DRM. Can I receive DRM from here?

Thanks in advance.

Raqueeb Hassan
Congo (DRC)

476. Re: High Voltage Components from microwave ovens

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-24 21:17:28 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10dmh76jodd1a8d@corp.supernews.com>
Source record: 25258
Cross-posted to: sci.electronics.repair,rec.radio.amateur.homebrew

Theo wrote:
> "Sam Goldwasser" <sam@saul.cis.upenn.edu> wrote in message
> news:6wu0x0hn1p.fsf@saul.cis.upenn.edu...
>
>>The transformer is good for 1500 to 2500 VRMS at 0.5 A or more.
>
>
> I would check to see if these transformers are continuously rated, I seem to
> recall they are rated for intermittent use only.
>
> Theo
>
>

They are also built to have high leakage inductance, for current limiting when you put your steel coffee cup in there. This is done by having physically separate windings and a laminated-steel wedge in the window in the core. You have to knock that wedge out.

There was an article in QST or QEX about using microwave parts to build power supplies for linears. Very interesting. Very scary, considering that the author also used old refrigerator drawers as the case...

I saved the pieces from my old microwave in case I ever want to build something that puts out more than 5W.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

477. Re: Receiving DRM with the DX-394

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-24 21:28:18 UTC
From: Tom Holden <holden_family@sympatico.ca>
Message-ID: <SHHCc.38035$MU4.1032438@news20.bellglobal.com>
Source record: 25259
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.shortwave

----- Original Message -----
From: "Al - KA5JGV" <aburzynski@nojunk.swri.edu>
> Tom, how are you adjusting the bandwidth in 1kHz steps with the software?
>
The software does more than DRM. The bandwidth selection is in AM mode not DRM.

In the AM mode, the Evaluation page of the DReaM software has 15 radiobuttons to select bandwidth. Under the spectral display, a red bar shows the bandwidth selected relative to the demodulator centre frequency, which you set by clicking on the display. For example, if you have tuned the radio toan AM station so that the carrier is at 12 kHz, you see a spike in the display at that frequency. Clicking on the spike centres the DSP filter on it. Then you can vary the filter bandwidth. It's all done in the math in the software.

You can also select USB or LSB, thus shifting the filter to one side of the carrier. Works great on AM with carrier to suppress interference that's one sided. Just think of it as a 3rd IF with variable bandwidth and passband tuning with an AM demod and a product detector - yes you can demodulate suppressed carrier AM too.

73, Tom

478. Re: Receiving DRM with the DX-394

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-24 21:58:46 UTC
From: Tom Holden <holden_family@sympatico.ca>
Message-ID: <p8ICc.34252$Nz.1779752@news20.bellglobal.com>
Source record: 25260
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.shortwave

"Raqueeb Hassan" <raqueebh@yahoo.com> wrote in message
> Does anyone know if there is any service targeting Africa, the mid
> africa. I have a Sony ICF 7600D .... I've that modification manual for
> DRM. Can I receive DRM from here?
>
A schedule of DRM transmissions is published at
http://www.drm.org/livebroadcast/globfieldtrial.htm . While none appear to
target central Africa, it may be possible to receive others. With your
unmodified radio, tune to the frequencies scheduled and listen for a hash
noise louder than that 10kHz away to either side. If you hear it and it
moves the S-meter a couple of units higher than either side, you will have a
good chance of decoding it.

Regards,
Tom

479. Re: Free: HP1743A scope "for parts"

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-24 22:50:19 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <7jmmd0tfu0pgu9ag1r886litjik21snsm7@4ax.com>
Source record: 25261
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew,sci.electronics.design

On 24 Jun 2004 13:22:28 -0700, k7itm@aol.com (Tom Bruhns) wrote:

>Scope is spoken for by someone nearby who has a working one. That's
>an appropriate use of this scope since the tube is fairly expensive.

Fair enough, Tom. You've done me a favor, really. I can't justify any
more clutter and am actually striving (not very convincingly) to clear
some much-needed space!

p.
--

"What is now proved was once only imagin'd." - William Blake, 1793.

480. Re: High Voltage Components from microwave ovens

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-25 00:08:13 UTC
From: Sam Goldwasser <sam@saul.cis.upenn.edu>
Message-ID: <6wllich53m.fsf@saul.cis.upenn.edu>
Source record: 25262
Cross-posted to: sci.electronics.repair,rec.radio.amateur.homebrew

"Theo" <theodore.twyler@ntlworld.com> writes:

> "Sam Goldwasser" <sam@saul.cis.upenn.edu> wrote in message
> news:6wu0x0hn1p.fsf@saul.cis.upenn.edu...
> > The transformer is good for 1500 to 2500 VRMS at 0.5 A or more.
>
> I would check to see if these transformers are continuously rated, I seem to
> recall they are rated for intermittent use only.

Well, microwave ovens can run for hours at full power so I guess that
rates continuoue? :) It is true they may NOT be continuous rated at
low or no load due to core saturation.

--- sam | Sci.Electronics.Repair FAQ Home Page: http://www.repairfaq.org/
Repair | Main Table of Contents: http://www.repairfaq.org/REPAIR/
+Lasers | Sam's Laser FAQ: http://www.repairfaq.org/sam/lasersam.htm
| Mirror Site Info: http://www.repairfaq.org/REPAIR/F_mirror.html

Important: Anything sent to the email address in the message header is ignored.
To contact me, please use the feedback form on the S.E.R FAQ Web sites.

481. APRSPoint announcement

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-25 01:13:34 UTC
From: hxc98@yahoo.com
Message-ID: <aa8577c5.0406241713.65136c10@posting.google.com>
Source record: 25263

Get APRSPoint and MapPoint 2004 for $119.95 instead of the regular price of $169.95, valid till July 4th and while supplies last. Visit http://www.aprspoint.com/ for details. Thank you.

482. Re: Receiving DRM with the DX-394

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-25 12:42:04 UTC
From: Al - KA5JGV <aburzynski@nojunk.swri.edu>
Message-ID: <10do7cvgtcof7f4@corp.supernews.com>
Source record: 25264
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.shortwave

"Tom Holden" <holden_family@sympatico.ca> wrote in message
news:SHHCc.38035$MU4.1032438@news20.bellglobal.com...
> The software does more than DRM. The bandwidth selection is in AM mode not
> 73, Tom

Tom, thanks for the detailed information. I have used this program many times for DRM and never realized there was an AM option to it. You're right, it's quite impressive what all can be done with this mode. I have a Ten-Tex RX-350 so all the DSP options are already there, but for a radio without these features, this program is great. All interested in DRM or DSP that have a 12kHz IF should try it.

Al KA5JGV

483. Re: APRSPoint announcement

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-25 17:28:53 UTC
From: dougmc@frenzy.com
Message-ID: <phZCc.9570$OX2.2990@fe2.texas.rr.com>
Source record: 25265

In article <aa8577c5.0406241713.65136c10@posting.google.com>,
Michael <hxc98@yahoo.com> wrote:

| Get APRSPoint and MapPoint 2004 for $119.95 instead of the regular
| price of $169.95, valid till July 4th and while supplies last. Visit
| http://www.aprspoint.com/ for details. Thank you.

Nice spam. You've spammed it to all the ham groups, even though only
a small fraction have anything to do with APRS. To make matters
worse, you've posted seperately to each group rather than crossposting
properly.

--
Doug McLaren, dougmc@frenzy.com Modulation in all things.

484. cancel

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-25 17:29:57 UTC
From: dougmc@frenzy.com
Message-ID: <piZCc.9571$OX2.3969@fe2.texas.rr.com>
Source record: 25266

<phZCc.9570$OX2.2990@fe2.texas.rr.com> was cancelled from within trn.
--
Doug McLaren, dougmc@frenzy.com Modulation in all things.

485. FS: New Porcelain Feedthrough Insulators

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-25 19:06:25 UTC
From: ljl160@netzero.net
Message-ID: <ad4e1371.0406251106.7c9028ee@posting.google.com>
Source record: 25267

FS: New Porcelain 2 piece feedthrough insulators. Size 1 1/2 inches high by
approx 1 1/8 inch diameter. Takes a 3/4 inch chassis hole. Good for HV power supplies, linears, antenna tuners, and balance antenna line window feedthrough plates. I have a jpeg. Asking $1 each as I have purchased too many for my needs. 73s Lew K1NDV

486. Re: High Voltage Components from microwave ovens

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-25 21:42:38 UTC
From: Wim Ton <wimton@blueyonder.co.uk>
Message-ID: <k%0Dc.2932$T3.817@front-1.news.blueyonder.co.uk>
Source record: 25268
Cross-posted to: sci.electronics.repair,rec.radio.amateur.homebrew

"Albert" <pass@pass.com> wrote in message
news:2gjld05tq6bcqg96m82r5mc3cvre2gcj9p@4ax.com...
> Are old high voltage components from microwave ovens useful, or should
> I chuck them out in the trash?
>
> I have several transformers that look like they are good for quite a
> few watts of power, some of the high voltage diodes and several
> blowers. I've been saving them.
>
> Can they be used for power supplies for rf transmitters? Are the
> blowers any good for cooling large tubes in transmitters?
>
Of course you can use the diodes and the capacitors ;-)
There are some articles on th Internet about converting the transformer for
a spot welder.
A also saw an article on using the magnetron as a PLL like amplifier to put
out 1kw at 13 cm. I can forward the link if you want.

Wim

487. Re: High Voltage Components from microwave ovens

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-25 22:52:11 UTC
From: Joerg <notthisjoergsch@removethispacbell.net>
Message-ID: <v02Dc.2381$uC3.208@newssvr27.news.prodigy.com>
Source record: 25269
Cross-posted to: sci.electronics.repair,rec.radio.amateur.homebrew

Hi Tim,

> There was an article in QST or QEX about using microwave parts to
> build power supplies for linears. Very interesting. Very scary,
> considering that the author also used old refrigerator drawers as the
> case...

Just curious: Do people still build linears with tubes and HV supplies or is it much cheaper now to use transistors? Mine were all tubes but that was about 20 some years ago when FETs and BJT were just way out there in terms of cost.

Regards, Joerg

http://www.analogconsultants.com

488. Re: High Voltage Components from microwave ovens

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-25 23:28:12 UTC
From: dplatt@radagast.org
Message-ID: <10dpd8cnks3sjfe@corp.supernews.com>
Source record: 25270
Cross-posted to: sci.electronics.repair,rec.radio.amateur.homebrew

>Just curious: Do people still build linears with tubes and HV supplies
>or is it much cheaper now to use transistors? Mine were all tubes but
>that was about 20 some years ago when FETs and BJT were just way out
>there in terms of cost.

As one example: Ameritron builds solid-state ham-band amplifiers of up to 600 watts output (their "ALS" series). Starting at the 600-watt point, and going up to the 1500-watt legal limit, Armitron's amps are all based on tubes. There are legal-limit HF amps which use only a single tube (e.g. a 3CX1500A/8877 triode, running at about 2500 volts)

According to a talk I saw recently, commercial television broadcasters have moved almost exclusively to solid-state RF amplifiers for their newer stations. No one set of transistors can provide thenecessary power, so the amps use a large number of smaller modular amplifiers operating in parallel - I think the basic "brick" we were shown was capable of a couple of hundred watts. I haven't seen any ham-band amplifiers using this modules-in-parallel approach, although I'm sure one could be built.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will boycott any company which has the gall to send me such ads!

489. Re: High Voltage Components from microwave ovens

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-26 00:24:20 UTC
From: Joerg <notthisjoergsch@removethispacbell.net>
Message-ID: <Um3Dc.5474$kZ6.1554@newssvr25.news.prodigy.com>
Source record: 25271
Cross-posted to: sci.electronics.repair,rec.radio.amateur.homebrew

Hi Dave,

Thanks for explaining. 600W is pretty good power already. Since the commercial amps are bricks it seems they must have good protection against sudden mismatches as well.

I remember when I had a coil in the antenna open, which was immediately followed by an exploding coax cable portion. The tubes didn't even flinch but in the 70's just the opening coil would have immediately destroyed even a small transistor amp because the SWR network wasn't fast enough to shut it down.

Regards, Joerg

http://www.analogconsultants.com

490. Re: For magnet lovers...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-26 05:17:59 UTC
From: mcalhoun@ksu.edu
Message-ID: <cbj0u7$kda@unix1.cc.ksu.edu>
Source record: 25272
Cross-posted to: sci.electronics.design,sci.electronics.components,rec.radio.amateur.homebrew

>ever since I was a child, magnets have held a fascination for me. I've been
>....[snip]....
>My question is does anyone know of other sources either for ...
>magnets that I may be missing out on? ....

Every microwave-oven tube has TWO quite-strong cylindrical magnets.
You have to tear the tube apart to retrieve them, but if you'll stack
6-8 of them with opposing poles on a loose-fit wooden dowels with some
kind of stop on the ends, I'll guarantee you that any kid who sees the
toy will practically wear it out playing with it. (Even sitting on
the shelf it looks magical, what with the magnets "floating" in air.)

--Myron.
--
Five boxes preserve our freedoms: soap, ballot, witness, jury, and cartridge
PhD EE (retired). "Barbershop" tenor. CDL(PTXS). W0PBV. (785) 539-4448
NRA Life Member and Certified Instructor (Home Firearm Safety, Rifle, Pistol)

491. Re: High Voltage Components from microwave ovens

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-26 05:21:55 UTC
From: mcalhoun@ksu.edu
Message-ID: <cbj15j$keh@unix1.cc.ksu.edu>
Source record: 25273
Cross-posted to: sci.electronics.repair,rec.radio.amateur.homebrew

>> The transformer is good for 1500 to 2500 VRMS at 0.5 A or more.
>I would check to see if these transformers are continuously rated,
>I seem to recall they are rated for intermittent use only.

Several years ago, while driving from Kansas City to Manhattan, KS (about 130 miles) I had an interesting QSO most of the way with someone who said his amplifier was powered by two microwave-oven transformers (two are used because the high-voltage winding is usually connected to "ground" internally).

--Myron, W0PBV.
--
Five boxes preserve our freedoms: soap, ballot, witness, jury, and cartridge
PhD EE (retired). "Barbershop" tenor. CDL(PTXS). W0PBV. (785) 539-4448
NRA Life Member and Certified Instructor (Home Firearm Safety, Rifle, Pistol)

492. Trade Kenwood for Tuner

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-26 09:17:39 UTC
From: Carl Domanico <vze2686b@verizon.net>
Message-ID: <TabDc.3363$Av3.3038@nwrdny01.gnilink.net>
Source record: 25274

Hi everyone in the group........I have a nice Kenwood TM-741A Triband Mobile radio...It has 144 mhz / and 440 mhz in the radio...However, the 144 mhz (2 meter Module is not functioning...The Radio has all the modifications...I have the owner / operator manual...I'm looking to trade the radio for Either a Johnson Killawatt Tuner...or a James Millen 2 killawatt tuner...Tuner must be in good working condition...and it would be nice if it was also cosmetically in shape....

Carl N2MFW

P. S. I will take cash if the offer presents itself...

493. Re: High Voltage Components from microwave ovens

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-26 09:56:45 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <2ugqd0lefrich62nttialueb34cuqjbjlq@4ax.com>
Source record: 25275
Cross-posted to: sci.electronics.repair,rec.radio.amateur.homebrew

On Fri, 25 Jun 2004 23:28:12 -0000, dplatt@radagast.org (Dave Platt) wrote:

>According to a talk I saw recently, commercial television broadcasters
>have moved almost exclusively to solid-state RF amplifiers for their
>newer stations. No one set of transistors can provide thenecessary
>power, so the amps use a large number of smaller modular amplifiers
>operating in parallel - I think the basic "brick" we were shown was
>capable of a couple of hundred watts. I haven't seen any ham-band
>amplifiers using this modules-in-parallel approach, although I'm
>sure one could be built.

In broadcasting, the station is usually operating on the same frequency all the time, so simple Wilkinson dividers/combiners (which are frequency specific) can be used, which effectively isolates the modules from each other, when one module fails.

However, a ham linear amplifier is typically required to operate in the 1.8-30 (or -54) MHz frequency range, which complicates the divider/combiner issue.

Paul OH3LWR

494. Re: High Voltage Components from microwave ovens

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-26 12:18:19 UTC
From: Albert <pass@pass.com>
Message-ID: <gbqqd05kgee2uo2pnj7k2hhhfa4hlrabrm@4ax.com>
Source record: 25276
Cross-posted to: sci.electronics.repair,rec.radio.amateur.homebrew

Yes, please publish the link Wm, and thanks.

On Fri, 25 Jun 2004 22:42:38 +0100, "Wim Ton"
<wimton@blueyonder.co.uk> wrote:

>
>"Albert" <pass@pass.com> wrote in message
>news:2gjld05tq6bcqg96m82r5mc3cvre2gcj9p@4ax.com...
>> Are old high voltage components from microwave ovens useful, or should
>> I chuck them out in the trash?
>>
>> I have several transformers that look like they are good for quite a
>> few watts of power, some of the high voltage diodes and several
>> blowers. I've been saving them.
>>
>> Can they be used for power supplies for rf transmitters? Are the
>> blowers any good for cooling large tubes in transmitters?
>>
>Of course you can use the diodes and the capacitors ;-)
>There are some articles on th Internet about converting the transformer for
>a spot welder.
>A also saw an article on using the magnetron as a PLL like amplifier to put
>out 1kw at 13 cm. I can forward the link if you want.
>
>Wim
>
>
>
>

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

495. Re: High Voltage Components from microwave ovens

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-26 13:01:27 UTC
From: Doug Smith W9WI <w9wi@invalid.invalid>
Message-ID: <40DD739F.3010400@invalid.invalid>
Source record: 25277
Cross-posted to: sci.electronics.repair,rec.radio.amateur.homebrew

Dave Platt wrote:
> According to a talk I saw recently, commercial television broadcasters
> have moved almost exclusively to solid-state RF amplifiers for their
> newer stations.

I suppose this is kinda OT but tubes (usually, klystrons or various modifications thereof) are still generally used for high power at UHF. IIRC solid-state UHF transmitters are available up to about 30kw or so, but larger stations require as much as 110kw to achieve the desired effective radiated power.

Tubes do indeed seem to be a thing of the past at VHF, where powers beyond 50kw are generally not necessary.
--
Doug Smith W9WI
Pleasant View (Nashville), TN EM66
http://www.w9wi.com

496. FA: NEW MAGNECRAFT COAXIAL RELAY>LIKE DOW-KEY>Last-DAY

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-26 14:07:11 UTC
From: rlucch2098@aol.com
Message-ID: <20040626100711.11545.00000543@mb-m11.aol.com>
Source record: 25278

At only $11, new cost is over $340>>
Many nice clear pics.
All items are real inexpensive.
Ebay item numbers>
3822562241
OR>
This is my entire list on Ebay.
You may want to check others while you're there :-)
Please add HTTP in front of the address below as AOL frowns on HOT links :-(
://cgi6.ebay.com/ws/eBayISAPI.dll?ViewListedItems&userid=myradioroom&sort=
3&page=1&rows=25&since=14&rdir=0
Thanks es 73.....RICH-WA2RQY RLUCCH2098@aol.com
Cheep Manuals for sale @>>
http://www.myradioroom.com/manualsales.html
Web-Page URL>
HTTP://members.aol.com/rlucch2098/index.html

497. FT 480R fault - 147.000 MHz on TX

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-26 17:25:53 UTC
From: "Airy R. Bean" <ariy.r.bean@lycos.co.uk>
Message-ID: <2k5q1hF17inlmU1@uni-berlin.de>
Source record: 25279
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

I've a FT 480R that has remained unused for at least two years.

Upon attempting to use it today on FM, it displays the TX frequency as 147 MHz. (It is TXing at this freq as confirmed by external frequency counter and dummy load.)

It is RXing quite normally on the simplex channels.

It goes to 147 MHz on TX irrespective of the mode - CW/SSB/FM and irrespective of the RX frequency be it 144.300 or 145.500..

Oddly enough, it does obey the +/- 600 kHZ repeater shift instruction.

Any clues or experience of this problem?

498. Re: FT 480R fault - 147.000 MHz on TX

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-26 17:37:52 UTC
From: "Airy R. Bean" <ariy.r.bean@lycos.co.uk>
Message-ID: <2k5qo0F17jgjcU1@uni-berlin.de>
Source record: 25281
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

goo-goo-goo gah-gah-gah dribble-dribble-dribble

There's a split freq switch on the front panel which was
pressed in!!!!!

I award myself the Old Mother-Hen Nugatory memorial award for
silliness.

"Airy R. Bean" <ariy.r.bean@lycos.co.uk> wrote in message
news:2k5q1hF17inlmU1@uni-berlin.de...
> I've a FT 480R that has remained unused for at least two years.
> Upon attempting to use it today on FM, it displays the TX frequency
> as 147 MHz. (It is TXing at this freq as confirmed by external frequency
> counter and dummy load.)
> It is RXing quite normally on the simplex channels.
> It goes to 147 MHz on TX irrespective of the mode - CW/SSB/FM and
> irrespective of the RX frequency be it 144.300 or 145.500..
> Oddly enough, it does obey the +/- 600 kHZ repeater shift instruction.
> Any clues or experience of this problem?

499. Re: FT 480R fault - 147.000 MHz on TX

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-26 17:40:04 UTC
From: "jim.gm4dhj" <jim.gm4dhj@ntlworld.com>
Message-ID: <fpjDc.966$dR2.25@newsfe3-win.server.ntli.net>
Source record: 25280
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

No....

500. Re: FT 480R fault - 147.000 MHz on TX

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-26 18:01:36 UTC
From: Graham W <graham.winters@royal.airforce.org.uk>
Message-ID: <2k5s02F186a0tU1@uni-berlin.de>
Source record: 25282
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

"Airy R. Bean" <ariy.r.bean@lycos.co.uk> wrote in message
news:2k5q1hF17inlmU1@uni-berlin.de...
> I've a FT 480R that has remained unused for at least two years.
>
> Upon attempting to use it today on FM, it displays the TX frequency
> as 147 MHz. (It is TXing at this freq as confirmed by external frequency
> counter and dummy load.)
>
> It is RXing quite normally on the simplex channels.
>
> It goes to 147 MHz on TX irrespective of the mode - CW/SSB/FM and
> irrespective of the RX frequency be it 144.300 or 145.500..
>
> Oddly enough, it does obey the +/- 600 kHZ repeater shift instruction.
>
> Any clues or experience of this problem?
>

Yes. A Chippenham Breaker (mind) set.

So, you have another bit of NON-HOME BREW KIT in your shack.

Never mind, you will soon fettle it.

501. Re: FT 480R fault - 147.000 MHz on TX

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-26 18:06:20 UTC
From: "jim.gm4dhj" <jim.gm4dhj@ntlworld.com>
Message-ID: <TNjDc.1047$dR2.798@newsfe3-win.server.ntli.net>
Source record: 25283
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

> goo-goo-goo gah-gah-gah dribble-dribble-dribble
>
> There's a split freq switch on the front panel which was
> pressed in!!!!!
>
> I award myself the Old Mother-Hen Nugatory memorial award for
> silliness.

See? the guy is just like the rest of us.......

502. FA EDDYSTONE RADIO No 898 GEARED SLOW MOTION DRIVE

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-26 18:06:47 UTC
From: Ron <bofars@ntlworld.com>
Message-ID: <lPjDc.388$vV3.216@newsfe2-win>
Source record: 25284
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.equipment,rec.radio.amateur.boatanchors

FA EDDYSTONE RADIO No 898 GEARED SLOW MOTION DRIVE

http://cgi.ebay.co.uk/ws/eBayISAPI.dll?ViewItem&item=5706320510

503. FA JOYMATCH 111A AERIAL MATCHING UNIT "A Classic of its time and a collectable of the future" Practical Wireless magazine 1991

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-26 18:13:03 UTC
From: Ron <bofars@ntlworld.com>
Message-ID: <tVjDc.208$326.55@newsfe1-win>
Source record: 25285
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.equipment,rec.radio.amateur.boatanchors

FA JOYMATCH 111A AERIAL MATCHING UNIT

"A Classic of its time and a collectable of the future" Practical Wireless magazine 1991

http://cgi.ebay.co.uk/ws/eBayISAPI.dll?ViewItem&item=5706336381

504. Re: FA JOYMATCH 111A AERIAL MATCHING UNIT "A Classic of its time and a collectable of the future" Practical Wireless magazine 1991

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-26 18:57:07 UTC
From: "Jock." <real_class_a2003@yahoo.fr>
Message-ID: <hmhrd09j053h3mpi74l0aj98smdo1hn9lk@4ax.com>
Source record: 25286
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.equipment,rec.radio.amateur.boatanchors

On Sat, 26 Jun 2004 19:13:03 +0100, "Ron" <bofars@ntlworld.com> wrote:

>FA JOYMATCH 111A AERIAL MATCHING UNIT
>
>"A Classic of its time and a collectable of the future" Practical Wireless
>magazine 1991
>
>http://cgi.ebay.co.uk/ws/eBayISAPI.dll?ViewItem&item=5706336381

A collectable is about right. It was never any use as an aerial.

--

Jock.
Class A (Hons)

505. Re: FT 480R fault - 147.000 MHz on TX

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-26 20:29:40 UTC
From: MOTHERFKER <INYOURMOMSPANTS@DOT.COM>
Message-ID: <U0lDc.752$Wd.1885@ord-read.news.verio.net>
Source record: 25287
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

We all make mistakes. I asked in a group a week or so ago for some info.
Dummy me, I had it in my damned filing cabinet the whole time! DUH.
L.

"Airy R. Bean" <ariy.r.bean@lycos.co.uk> wrote in message
news:2k5qo0F17jgjcU1@uni-berlin.de...
> goo-goo-goo gah-gah-gah dribble-dribble-dribble
>
> There's a split freq switch on the front panel which was
> pressed in!!!!!
>
> I award myself the Old Mother-Hen Nugatory memorial award for
> silliness.
>
> "Airy R. Bean" <ariy.r.bean@lycos.co.uk> wrote in message
> news:2k5q1hF17inlmU1@uni-berlin.de...
> > I've a FT 480R that has remained unused for at least two years.
> > Upon attempting to use it today on FM, it displays the TX frequency
> > as 147 MHz. (It is TXing at this freq as confirmed by external frequency
> > counter and dummy load.)
> > It is RXing quite normally on the simplex channels.
> > It goes to 147 MHz on TX irrespective of the mode - CW/SSB/FM and
> > irrespective of the RX frequency be it 144.300 or 145.500..
> > Oddly enough, it does obey the +/- 600 kHZ repeater shift instruction.
> > Any clues or experience of this problem?
>
>

506. Re: FA JOYMATCH 111A AERIAL MATCHING UNIT "A Classic of its time and a collectable of the future" Practical Wireless magazine 1991

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-26 20:39:03 UTC
From: "jim.gm4dhj" <jim.gm4dhj@ntlworld.com>
Message-ID: <s1mDc.247$326.177@newsfe1-win>
Source record: 25288
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.equipment,rec.radio.amateur.boatanchors

> "A Classic of its time and a collectable of the future" Practical
Wireless
> magazine 1991

Never believe predictions.......

507. Re: For magnet lovers...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-26 21:56:26 UTC
From: Ben Bradley <ben_nospam_bradley@mindspring.com>
Message-ID: <frrrd092j2og32n9ueni4fh6ouh06ru268@4ax.com>
Source record: 25289
Cross-posted to: sci.electronics.design,sci.electronics.components,rec.radio.amateur.homebrew

sci.electronics.design,sci.electronics.components,rec.radio.amateur.homebrew,
"Greysky" <greyskynospam@sbcglobal.net> wrote:

>ever since I was a child, magnets have held a fascination for me. I've been
>collecting them ever since. It used to be that you could always scrounge
>loudspeakers for Alnico magnets. Then when the newer ceramic magnets began
>to be incorporated into loudspeakers, it became a challenge to remove them
>from their enclosures without breaking them. Now, I have to admit, I am
>having a ball collecting the new 'super magnets' - like the ones inside hard
>drives. There are also cool cylindrical magnets that you can get from inside
>the heads of VHS machines. My question is does anyone know of other sources
>either for Neodymium 'duper magnets', or strong ceramic magnets that I may
>be missing out on?

Like other posters, I've gotten some good ones out of some 5"
full-heght 30MB hard drives, and the ceramic donut magnets inside
microwave ovens. There are also some small, moderately strong
(apparently a step below Neodymium) magnets in many small
earphones/headphones (the kind for Walkman type portable stereos with
the 1/8" plug), that I've bought surplus for a dollar each. But some
of these have a little ceramic ring/donut magnet that's about next to
useless.

>Magnets like these come closest to being perpetual motion
>machines we have yet to make, and I'd hate to have some just wind up into
>the trash because I didn't know they were there :-)

There's this fun link that was posted a few months ago.

http://www.houseofscience.com/ouch/ouch.html

>Thanks.!
>

508. Airy confesses!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-26 22:19:25 UTC
From: Frank Turner-Smith G3VKI <g3vki@turner-smith.co.uk>
Message-ID: <2k6b3eF18gp21U1@uni-berlin.de>
Source record: 25290
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

"Airy R. Bean" <ariy.r.bean@lycos.co.uk> wrote in message
news:2k5qo0F17jgjcU1@uni-berlin.de...
> goo-goo-goo gah-gah-gah dribble-dribble-dribble
>
> There's a split freq switch on the front panel which was
> pressed in!!!!!
>
> I award myself the Old Mother-Hen Nugatory memorial award for
> silliness.
>
Glad you've finally admitted it.
..(_!_)...

509. question about cell phone boosters

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-26 22:44:49 UTC
From: Joe <nuisancewildlife@nospamearthlink.net>
Message-ID: <B%mDc.15326$bs4.1771@newsread3.news.atl.earthlink.net>
Source record: 25291

Do cell phone boosters really work, or is it just more hype to get you to part with your dollars? In an area where there are hills and valleys, sometimes I can't get a very good signal in the valleys. It seems like I get calls all the time when I am in an area of poor reception. Has anyone had any experience with these?

Joe

510. Re: question about cell phone boosters

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-26 23:04:01 UTC
From: Jim Pennell <Nospam@killspam.com>
Message-ID: <BhnDc.2101$lh4.1734@newsread1.news.pas.earthlink.net>
Source record: 25292

Cell phone boosters that I know about are all hype.

A cell phone is a low power radio, basically similar to one of the walkie talkies that kids played with. Due to the limited power on Tx, I am amazed they work as well as they do.

Still, they only work when you are more or less in line of sight of one of the cell Tower antenna systems. Surrounded by hills, valleys, or tall buildings, you are usually going to get poor reception.

The so called boosters tend to be flashy metal plates and such which claim to focus the radio waves to get more range. Problem is even if they DID focus the radio signals, which they don't, it would be a directional signal and if you moved the phone away from the exact location, it would lose the signal....

Jim
N6BIU

511. Re: FT 480R fault - 147.000 MHz on TX

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-26 23:06:16 UTC
From: Lou <FFSTA17N0@SPAMACCESS995.COM>
Message-ID: <IjnDc.755$Wd.1208@ord-read.news.verio.net>
Source record: 25293
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

To the group..... I've been having a problem this past week. I've gotten messages cced to me, which appeared as though I sent them, and they were sent to people I didn't know. MY computer is/was being hijacked. While "I" did write the "Message", I didn't write the header. "I" apologize for the below header. It happened in another news group I posted to, at the same time as this message - with a message I posted to that group. I am going to get this checked into. Again, my apologies for the ignorance of the header. While I can apologize for this, I hope my info hasn't been compromised. YUCK! Then I'll really have problems. Not sure HOW to cure this, but I got to!

Lou

"MOTHERFKER" <INYOURMOMSPANTS@DOT.COM> wrote in message
news:U0lDc.752$Wd.1885@ord-read.news.verio.net...
> We all make mistakes. I asked in a group a week or so ago for some info.
> Dummy me, I had it in my damned filing cabinet the whole time! DUH.
> L.
>
> "Airy R. Bean" <ariy.r.bean@lycos.co.uk> wrote in message
> news:2k5qo0F17jgjcU1@uni-berlin.de...
> > goo-goo-goo gah-gah-gah dribble-dribble-dribble
> >
> > There's a split freq switch on the front panel which was
> > pressed in!!!!!
> >
> > I award myself the Old Mother-Hen Nugatory memorial award for
> > silliness.
> >
> > "Airy R. Bean" <ariy.r.bean@lycos.co.uk> wrote in message
> > news:2k5q1hF17inlmU1@uni-berlin.de...
> > > I've a FT 480R that has remained unused for at least two years.
> > > Upon attempting to use it today on FM, it displays the TX frequency
> > > as 147 MHz. (It is TXing at this freq as confirmed by external
frequency
> > > counter and dummy load.)
> > > It is RXing quite normally on the simplex channels.
> > > It goes to 147 MHz on TX irrespective of the mode - CW/SSB/FM and
> > > irrespective of the RX frequency be it 144.300 or 145.500..
> > > Oddly enough, it does obey the +/- 600 kHZ repeater shift instruction.
> > > Any clues or experience of this problem?
> >
> >
>

>

512. Free: RF magazines

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-26 23:55:17 UTC
From: k7itm@aol.com
Message-ID: <3200347.0406261555.144c6114@posting.google.com>
Source record: 25294
Cross-posted to: sci.electronics.design,rec.radio.amateur.homebrew

Hi all,

Free for pickup in the Seattle-Everett area:
==========

RF Design, almost complete from Nov/Dec 1980 to early 2004

Microwave Journal, most issues from May 2000 - June 2004

Applied Microwave & Wireless, mose issues from Winter 1995 to Oct. 2002
==========

These would be too expensive to ship...

They'll go into the recycle about July 1 if nobody claims them.

Cheers,
Tom

513. Re: question about cell phone boosters

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-27 00:49:11 UTC
From: Lou <FFSTA17N0@SPAMACCESS995.COM>
Message-ID: <bQoDc.758$Wd.1996@ord-read.news.verio.net>
Source record: 25295

I had a couple sent to me by someone. I tried one. I seen NO improvement. I don't know why it was sent to me, except as a gift, but I sure wouldn't have spent my cash on one. I didn't have faith in them before, and CERTAINLY not now.

Lou

"Joe" <nuisancewildlife@nospamearthlink.net> wrote in message news:B%mDc.15326$bs4.1771@newsread3.news.atl.earthlink.net...
> Do cell phone boosters really work, or is it just more hype to get you to
> part with your dollars? In an area where there are hills and valleys,
> sometimes I can't get a very good signal in the valleys. It seems like I get
> calls all the time when I am in an area of poor reception. Has anyone had
> any experience with these?
>
> Joe
>
>
>
>

514. Re: question about cell phone boosters

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-27 01:07:44 UTC
From: Ralph Mowery <rmowery28146@earthlink.net>
Message-ID: <A5pDc.14845$w07.4661@newsread2.news.pas.earthlink.net>
Source record: 25296

"Joe" <nuisancewildlife@nospamearthlink.net> wrote in message
news:B%mDc.15326$bs4.1771@newsread3.news.atl.earthlink.net...
> Do cell phone boosters really work, or is it just more hype to get you to
> part with your dollars? In an area where there are hills and valleys,
> sometimes I can't get a very good signal in the valleys. It seems like I
get
> calls all the time when I am in an area of poor reception. Has anyone had
> any experience with these?

You will part with your money. Here is a place to get them for less than $
2 instead of $ 10 or more that is normally asked. Fellows at work ordered
from this place a year ago and got good service from them. The company ,
not the antennas. The other stuff they ordered such as batteries and cases
worked as advertised.

http://www.cellphoneshop.net/

515. Re: Free: RF magazines

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-27 01:29:09 UTC
From: Winfield Hill <Winfield_member@newsguy.com>
Message-ID: <cbl7t501qr4@drn.newsguy.com>
Source record: 25147
Cross-posted to: sci.electronics.design,rec.radio.amateur.homebrew

Tom Bruhns wrote...
>
> Free for pickup in the Seattle-Everett area:
> ===============
>
> RF Design, almost complete from Nov/Dec 1980 to early 2004

I'd like to complete my anemic decimated RF Design collection,
and am more than willing to pay for shipping to Cambridge.

Thanks,
- Win

(email: use hill_at_rowland-dot-org for now)

516. _Interesting_ antenna: the "RUZ"

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-27 03:10:30 UTC
From: mikea@mikea.ath.cx
Message-ID: <cbldr5jao1@puck.litech.org>
Source record: 25148

I just got home from Doing My Part at the local club's Field Day site. My part involved taking a receiver out to feed another gyu's RTTY converter, which fed Yet Another Guy's Teletype Model-15, so we could print the ARRL Field Day Message. That was good for 100 points, IIRC.

I was given a 20M dipole to use, strung about 30 feet up between some trees. Tried to copy RTTY on 20M from the dipole, with really cruddy results. A guy offers this Weird Thing with an SO-23k connector. I hook a hundred-foot feedlike to it and put it on a picnic table that far away, and all of a sudden the S4-5 stations are S6-8, and I'm getting _LOTS_ better copy.

Come 0100Z, I get solid copy from that antenna to a disk file on a PC. Just before, we tried the dipole again: cruddy, lots of QSB and QRN.

It's described on <http://www.qsl.net/ka5ruz/>. He calls it the "RUZ" antenna. I prefer to call it the "CPW" antenna: "Can't Possibly Work". But it does. I'm fairly well impressed, folks. You ight want to have a look.

--
Mike Andrews
mikea@mikea.ath.cx
Tired old sysadmin

517. Re: question about cell phone boosters

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-27 06:06:00 UTC
From: "Airy R. Bean" <ariy.r.bean@lycos.co.uk>
Message-ID: <2k76j7F187ehdU3@uni-berlin.de>
Source record: 25149

Just you try using one of those 3 transistor CB Radios from the '60's!

Power control is one of the technical achievements of GSM - the mobile
is instructed by the base to lower (or raise) its power appropriately.
Generally,
the maximum power from a handset is 33 dBm (at power level 5) which is
more than sufficient for the 35km wide maximum cell size.

The maximum cell size is determined by the length of the RACH burst.

"Jim Pennell" <Nospam@killspam.com> wrote in message
news:BhnDc.2101$lh4.1734@newsread1.news.pas.earthlink.net...
> A cell phone is a low power radio, basically similar to one of the
walkie
> talkies that kids played with. Due to the limited power on Tx, I am
amazed
> they work as well as they do.

518. Re: FA JOYMATCH 111A AERIAL MATCHING UNIT "A Classic of its time and a collectable of the future" Practical Wireless magazine 1991

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-27 07:04:46 UTC
From: Brian Reay <brian.reay@bigfoot.com>
Message-ID: <2k79sfF18bcmdU1@uni-berlin.de>
Source record: 25150
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.equipment,rec.radio.amateur.boatanchors

"Jock." <real_class_a2003@yahoo.fr> wrote in message
news:hmhrd09j053h3mpi74l0aj98smdo1hn9lk@4ax.com...
> On Sat, 26 Jun 2004 19:13:03 +0100, "Ron" <bofars@ntlworld.com> wrote:
>
> >FA JOYMATCH 111A AERIAL MATCHING UNIT
> >
> >"A Classic of its time and a collectable of the future" Practical
Wireless
> >magazine 1991
> >
> >http://cgi.ebay.co.uk/ws/eBayISAPI.dll?ViewItem&item=5706336381
>
> A collectable is about right. It was never any use as an aerial.
>

I remember the ads for these in PW etc. I wondering what they were. I assume
some sort of shortened helical dipole with an ATU.

Do you know?

73

Brian

519. Re: Free: RF magazines

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-27 07:24:19 UTC
From: Robert Baer <robertbaer@earthlink.net>
Message-ID: <40DE7605.53543D24@earthlink.net>
Source record: 25151
Cross-posted to: sci.electronics.design,rec.radio.amateur.homebrew

Winfield Hill wrote:
>
> Tom Bruhns wrote...
> >
> > Free for pickup in the Seattle-Everett area:
> > ===============
> >
> > RF Design, almost complete from Nov/Dec 1980 to early 2004
>
> I'd like to complete my anemic decimated RF Design collection,
> and am more than willing to pay for shipping to Cambridge.
>
> Thanks,
> - Win
>
> (email: use hill_at_rowland-dot-org for now)

Consider using the Snail book rate; takes linger but saves $$
especially if a lot of weight.

520. Re: For magnet lovers...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-27 07:58:57 UTC
From: Rex <me@hutmail.invalid>
Message-ID: <sdvsd0t9c6ifals0slcfmblh7fcb8r7olv@4ax.com>
Source record: 25152
Cross-posted to: sci.electronics.design,sci.electronics.components,rec.radio.amateur.homebrew

On Sat, 26 Jun 2004 17:56:26 -0400, Ben Bradley
<ben_nospam_bradley@mindspring.com> wrote:

> There's this fun link that was posted a few months ago.
>
>http://www.houseofscience.com/ouch/ouch.html

Love it.

This has been a very interesting thread but now I have even more reason
(than my other unfinished projects or ideas) to not order some of these
cool magnets.

521. Re: _Interesting_ antenna: the "RUZ"

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-27 08:07:02 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <GevDc.19510$HS3.10626@edtnps84>
Source record: 25153

Looks like the E-field generator section of a CFA (Cross-Field Antenna).

Anybody else notice this?

--
Gregg
It's probably useful, even if it can't be SPICE'd
http://geek.scorpiorising.ca

522. Re: Free: RF magazines

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-27 08:09:20 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <QgvDc.19514$HS3.14178@edtnps84>
Source record: 25154
Cross-posted to: sci.electronics.design,rec.radio.amateur.homebrew

Behold, Tom Bruhns signalled from keyed 4-1000A filament:

> Hi all,
>
> Free for pickup in the Seattle-Everett area: ===============
>
> RF Design, almost complete from Nov/Dec 1980 to early 2004
>
> Microwave Journal, most issues from May 2000 - June 2004
>
> Applied Microwave & Wireless, mose issues from Winter 1995 to Oct. 2002
> ===============
>
> These would be too expensive to ship...
>
> They'll go into the recycle about July 1 if nobody claims them.
>
> Cheers,
> Tom

Greetz Tom,

I live 4-1/2 hours north of you in Chilliwack, BC.

Shipping for that lot couldn't be too much to me.

--
Gregg
It's probably useful, even if it can't be SPICE'd
http://geek.scorpiorising.ca

523. Re: question about cell phone boosters

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-27 09:38:15 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <3a5td05c3a46q4mhjk1fgmklvts87abb9g@4ax.com>
Source record: 25155

On Sat, 26 Jun 2004 23:04:01 GMT, "Jim Pennell" <Nospam@killspam.com>
wrote:

> Cell phone boosters that I know about are all hype.
>
> A cell phone is a low power radio, basically similar to one of the walkie
>talkies that kids played with. Due to the limited power on Tx, I am amazed
>they work as well as they do.
>
> Still, they only work when you are more or less in line of sight of one of
>the cell Tower antenna systems. Surrounded by hills, valleys, or tall
>buildings, you are usually going to get poor reception.
>
> The so called boosters tend to be flashy metal plates and such which claim
>to focus the radio waves to get more range. Problem is even if they DID
>focus the radio signals, which they don't, it would be a directional signal
>and if you moved the phone away from the exact location, it would lose the
>signal....

Are you saying these things are just basically passive horns like you
see used in microwave? "Booster" implies something a little more
active!
--

"What is now proved was once only imagin'd." - William Blake, 1793.

524. Re: Wanted: the definitive RF equivalent model for a resistor!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-27 09:48:48 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <gj5td0hu6d91jffhpne7dun879mcb534t0@4ax.com>
Source record: 25156
Cross-posted to: sci.electronics.cad,sci.electronics.design,rec.radio.amateur.homebrew

On Sun, 27 Jun 2004 01:56:00 +0100, "fellow" <Jameson@god.com> wrote:

>
>"Paul Burridge" <pb@notthisbit.osiris1.co.uk> wrote in message
>news:22ubd0l3btmsrp6l2mci6aujvo07ep7bo0@4ax.com...
>> Hi guys,
>>
>> I've seen a lot of stuff on the net about Spice modelling that takes
>> into account paractics at RF, but they typically turn out to be....
>>
>> -----inductor-----resistor------inductor--------
>> | |
>> | |
>> -----cap-----|
>>
>>
>> Or othertimes, the cap is shown as being across the entire network;
>> ie., at the outer extrameties of the inductors. The difference in
>> practice between the two examples is *large* in effect so which is
>> correct if either, and equally importantly, how can the skin effect be
>> incorporated into the model to give a more complete picture?
>> --
>>
>> "What is now proved was once only imagin'd." - William Blake, 1793.
>
>Same equivalent circuit in the book"Noise Reduction Techniques", but the two
>Ls combined as one L. Personally, I would have thought that there should be
>an additional inductance in series with R, both in parallel to cap but I
>suspect it's ignored because R and C dominate.

Absolutely. It's evident from the simulations I've run that having a
generous lead-length doesn't seriously degrade impedance anything like
as much as the size of the parasitic capacitance does. The value of
Cpar is, it appears, of much greater consequence that attempting to
achieve zero lead length, at up to a Gig at any rate.
--

"What is now proved was once only imagin'd." - William Blake, 1793.

525. Re: question about cell phone boosters

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-27 10:36:53 UTC
From: jason <jas@kto.net>
Message-ID: <4kyDc.41$qT5.14@newsfe1-gui.server.ntli.net>
Source record: 25157

I think all that means "NO".

"Jim Pennell" <Nospam@killspam.com> wrote in message
news:BhnDc.2101$lh4.1734@newsread1.news.pas.earthlink.net...
> Cell phone boosters that I know about are all hype.
>
> A cell phone is a low power radio, basically similar to one of the
walkie
> talkies that kids played with. Due to the limited power on Tx, I am
amazed
> they work as well as they do.
>
> Still, they only work when you are more or less in line of sight of one
of
> the cell Tower antenna systems. Surrounded by hills, valleys, or tall
> buildings, you are usually going to get poor reception.
>
> The so called boosters tend to be flashy metal plates and such which
claim
> to focus the radio waves to get more range. Problem is even if they DID
> focus the radio signals, which they don't, it would be a directional
signal
> and if you moved the phone away from the exact location, it would lose the
> signal....
>
>
> Jim
> N6BIU
>
>

Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.711 / Virus Database: 467 - Release Date: 25/06/2004

526. Re: FA JOYMATCH 111A AERIAL MATCHING UNIT "A Classic of its time and a collectable of the future" Practical Wireless magazine 1991

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-27 11:54:47 UTC
From: tomtubesuck <blaaaaaaaaaa@hotmail.com>
Message-ID: <79be4$40deb8ba$d8536fef$19500@snip.allthenewsgroups.com>
Source record: 25158
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.equipment,rec.radio.amateur.boatanchors

"jim.gm4dhj" <jim.gm4dhj@ntlworld.com> wrote in message
news:s1mDc.247$326.177@newsfe1-win...
>
> > "A Classic of its time and a collectable of the future" Practical
> Wireless
> > magazine 1991
>
> Never believe predictions.......

Right up there with the infamous AEA Isopole and most of
what junk MFJ sells......

527. Re: FT 480R fault - 147.000 MHz on TX

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-27 14:11:12 UTC
From: Baz Harris <corblimey@mail2juggler.com>
Message-ID: <CsBDc.53$SE5.24@newsfe2-gui.server.ntli.net>
Source record: 25159
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

Airy R. Bean wrote:

> goo-goo-goo gah-gah-gah dribble-dribble-dribble
>
> There's a split freq switch on the front panel which was
> pressed in!!!!!
>
> I award myself the Old Mother-Hen Nugatory memorial award for
> silliness.

Surely any who claims that he is a _REAL_ Radio Ham would know this?

Any why are you operating commercially produced equipment anyway?

We all assumed you limited your equipment to purely home-made varieties
not Far Eastern imports? Surely a case of double-standards old boy,
especially now you've started to befriend a M3 too.

bH.

528. Re: Free: RF magazines

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-27 15:33:51 UTC
From: Lou <FFSTA17N0@SPAMACCESS995.COM>
Message-ID: <zNBDc.1353$Wd.2098@ord-read.news.verio.net>
Source record: 25160

MEDIA MAIL - OR - MAYBE BUNDLED MAIL (depending on quantity) would be your best approach. It is less than Parcel and so on, but takes a bit longer. You can still insure it (at least media, not sure of bundled) and get a tracker on it. If the parties are willing to pay to ship, why not? At least you'll get rid of them.

Lou

"Gregg" <nospam@unknown.org> wrote in message
news:QgvDc.19514$HS3.14178@edtnps84...
> Behold, Tom Bruhns signalled from keyed 4-1000A filament:
>
> > Hi all,
> >
> > Free for pickup in the Seattle-Everett area: ===============
> >
> > RF Design, almost complete from Nov/Dec 1980 to early 2004
> >
> > Microwave Journal, most issues from May 2000 - June 2004
> >
> > Applied Microwave & Wireless, mose issues from Winter 1995 to Oct. 2002
> > ===============
> >
> > These would be too expensive to ship...
> >
> > They'll go into the recycle about July 1 if nobody claims them.
> >
> > Cheers,
> > Tom
>
> Greetz Tom,
>
> I live 4-1/2 hours north of you in Chilliwack, BC.
>
> Shipping for that lot couldn't be too much to me.
>
> --
> Gregg
> *It's probably useful, even if it can't be SPICE'd*
> http://geek.scorpiorising.ca

529. Free: "DoppleScAnt" system

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-27 18:07:59 UTC
From: k7itm@aol.com
Message-ID: <3200347.0406271007.e01c826@posting.google.com>
Source record: 25161
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew,rec.radio.amateur.boatanchors

Hi all...

Continuing my downsizing. Free for pickup in the Seattle/Everett area: my homebrew doppler scanning DF antenna system, including the antenna structure, control box with compass rose LED readout, and cables. Worked well the last time I used it a few years ago. I believe the article describing this system was in May 1978 QST.

Cheers,
Tom

530. Re: FA JOYMATCH 111A AERIAL MATCHING UNIT "A Classic of its time and a collectable of the future" Practical Wireless magazine 1991

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-27 19:36:29 UTC
From: Theo <theodore.twyler@ntlworld.com>
Message-ID: <cdGDc.1685$rJ4.602@newsfe4-gui>
Source record: 25162
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.equipment,rec.radio.amateur.boatanchors

"Brian Reay" <brian.reay@bigfoot.com> wrote in message
news:2k79sfF18bcmdU1@uni-berlin.de...

(snip)
I remember the ads for these in PW etc. I wondering what they were. I
assume
some sort of shortened helical dipole with an ATU.

Do you know?

Yes, in fact it was a 6 ft pole with lumped inductance forming the end
loading for the so-called "feeder" , which in reality was a single 30ft
length of insulated wire, end fed from the transmitter via the Joymatch ATU
and tuned against earth.
I understand that due to the highest current portion of the wave being along
this "feeder", with highest voltage being in the lumped inductance, most of
the useful part of the signal was radiated by the "feeder" rather than the
antenna itself!
Nevertheless, the Joystick had its converts in those amateurs who found it
allowed them to operate from locations where normal sized antennas were
frowned upon or lack of space made it impossible to erect.
Whether they ever compared it to an end-fed random length of wire, I am not
sure.

531. looking for 2sk2975.pdf or RD07MVS... do you know a good vendor?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-27 20:09:38 UTC
From: Matt <matthieub@tareum.freeserve.co.uk>
Message-ID: <40df298c$0$3140$626a14ce@news.free.fr>
Source record: 25163

I am trying to buy a few 2sk2975 or the RD07MVS for a fried FT-817.
Can you point to a known retailer?

Thanks

Matthieu

532. Re: Free: RF magazines

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-27 21:02:45 UTC
From: k7itm@aol.com
Message-ID: <3200347.0406271302.480183c@posting.google.com>
Source record: 25164
Cross-posted to: sci.electronics.design,rec.radio.amateur.homebrew

Robert Baer <robertbaer@earthlink.net> wrote in message
news:<40DE7605.53543D24@earthlink.net>...
> Winfield Hill wrote:
> >
> > Tom Bruhns wrote...
...
> > > RF Design, almost complete from Nov/Dec 1980 to early 2004
> >
> > I'd like to complete my anemic decimated RF Design collection,
> > and am more than willing to pay for shipping to Cambridge.
...
> >
> Consider using the Snail book rate; takes linger but saves $$
> especially if a lot of weight.

Unfortunately, it's not OK to use that rate for magazines that contain
advertising. See USPS website.

Win wins the RF Design mags...

Cheers,
Tom

533. Re: For magnet lovers...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-27 21:15:46 UTC
From: steve <steve_ibm_retired@nospam.com>
Message-ID: <40DF3900.C2FBD2BC@nospam.com>
Source record: 25165
Cross-posted to: sci.electronics.design,sci.electronics.components,rec.radio.amateur.homebrew

Please use caution with these ceramic type magnets,
they can shatter and can hurt adults or kids.

steve

mcalhoun@ksu.edu wrote:

> >ever since I was a child, magnets have held a fascination for me. I've been
> >....[snip]....
> >My question is does anyone know of other sources either for ...
> >magnets that I may be missing out on? ....
>
> Every microwave-oven tube has TWO quite-strong cylindrical magnets.
> You have to tear the tube apart to retrieve them, but if you'll stack
> 6-8 of them with opposing poles on a loose-fit wooden dowels with some
> kind of stop on the ends, I'll guarantee you that any kid who sees the
> toy will practically wear it out playing with it. (Even sitting on
> the shelf it looks magical, what with the magnets "floating" in air.)
>
> --Myron.
> --
> Five boxes preserve our freedoms: soap, ballot, witness, jury, and cartridge
> PhD EE (retired). "Barbershop" tenor. CDL(PTXS). W0PBV. (785) 539-4448
> NRA Life Member and Certified Instructor (Home Firearm Safety, Rifle, Pistol)

534. Re: Free: RF magazines

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-27 21:18:28 UTC
From: k7itm@aol.com
Message-ID: <3200347.0406271318.62197166@posting.google.com>
Source record: 25167
Cross-posted to: sci.electronics.design,rec.radio.amateur.homebrew

Gregg <nospam@unknown.org> wrote in message news:<QgvDc.19514$HS3.14178@edtnps84>...
> Behold, Tom Bruhns signalled from keyed 4-1000A filament:
>
> > Hi all,
> >
> > Free for pickup in the Seattle-Everett area: ===============
> >
> > RF Design, almost complete from Nov/Dec 1980 to early 2004
> >
> > Microwave Journal, most issues from May 2000 - June 2004
> >
> > Applied Microwave & Wireless, mose issues from Winter 1995 to Oct. 2002
> > ===============
> >
> > These would be too expensive to ship...
> >
> > They'll go into the recycle about July 1 if nobody claims them.
> >
> > Cheers,
> > Tom
>
> Greetz Tom,
>
> I live 4-1/2 hours north of you in Chilliwack, BC.
>
> Shipping for that lot couldn't be too much to me.

Win has the RF Design mags. What's left is the Microwave Journal and Applied Microwave & Wireless. The total weight is close to 70 pounds, and by splitting it into two packages, it could ship for $62. (In a single package, it was some silly amount like $180, because they only do express shipments for heavy stuff, I guess. This is through US Postal Service. UPS would be about $71 for ground service.) Still interested? I'm suspecting it's recycle time for those.

Cheers,
Tom

535. Re: question about cell phone boosters

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-27 21:18:52 UTC
From: roy <roy@nospam.com>
Message-ID: <40DF39BB.8ACEB6C8@nospam.com>
Source record: 25166

It is like having a four foot antenna !

Well, not really, this is just wrong.

Besides, your cell antenna is only inches long, having a four foot
antenna (equal to using a 'booster') will get you nothing
the cell frequencies are in the 900 Mhz and higher range.

roy

Jim wrote:

> Cell phone boosters that I know about are all hype.
>
> A cell phone is a low power radio, basically similar to one of the walkie
> talkies that kids played with. Due to the limited power on Tx, I am amazed
> they work as well as they do.
>
> Still, they only work when you are more or less in line of sight of one of
> the cell Tower antenna systems. Surrounded by hills, valleys, or tall
> buildings, you are usually going to get poor reception.
>
> The so called boosters tend to be flashy metal plates and such which claim
> to focus the radio waves to get more range. Problem is even if they DID
> focus the radio signals, which they don't, it would be a directional signal
> and if you moved the phone away from the exact location, it would lose the
> signal....
>
> Jim
> N6BIU

536. Re: FA JOYMATCH 111A AERIAL MATCHING UNIT "A Classic of its time and a collectable of the future" Practical Wireless magazine 1991

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-27 21:27:05 UTC
From: abe@quest.cc.purdue.edu
Message-ID: <abe.1088371625@quest.cc.purdue.edu>
Source record: 25169
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.equipment,rec.radio.amateur.boatanchors

"Theo" <theodore.twyler@ntlworld.com> writes:

>"Brian Reay" <brian.reay@bigfoot.com> wrote in message
>news:2k79sfF18bcmdU1@uni-berlin.de...

>(snip)
> I remember the ads for these in PW etc. I wondering what they were. I
>assume
> some sort of shortened helical dipole with an ATU.

> Do you know?

>Yes, in fact it was a 6 ft pole with lumped inductance forming the end
>loading for the so-called "feeder" , which in reality was a single 30ft
>length of insulated wire, end fed from the transmitter via the Joymatch ATU
>and tuned against earth.
>I understand that due to the highest current portion of the wave being along
>this "feeder", with highest voltage being in the lumped inductance, most of
>the useful part of the signal was radiated by the "feeder" rather than the
>antenna itself!
>Nevertheless, the Joystick had its converts in those amateurs who found it
>allowed them to operate from locations where normal sized antennas were
>frowned upon or lack of space made it impossible to erect.
>Whether they ever compared it to an end-fed random length of wire, I am not
>sure.

I got a JoyStick (the pole) and a JoyMatch (the ATU) in 1965 or 1966.
The combination wasn't very effective and performed more poorly than an
end-fed random wire to which I did compare it.

However, my JoyMatch, which I still have, doesn't look anything like
the one on Ebay. Mine is a simple L network tuner, nicely made of a
tapped coil on PVC and a 365pf capacitor in an open configuration
without cabinet. A label on the coil says JoyMatch. I still use it
with an ICOM IC-PCR10000.

Vic W9RGB

537. Re: "DoppleScAnt" system

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-27 21:27:15 UTC
From: Roger Sparks <rsparks@elltel.net>
Message-ID: <40df3be7$1_5@corp.newsgroups.com>
Source record: 25168
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew,rec.radio.amateur.boatanchors

Hi Tom,

You are correct about the QST reference. The article is entitled "A DoppleScAnt" by Terrence Rogers, WA4BVY.

The article is very positive about the method.

Your generosity should be much appreciated by someone.

73, Roger, W7WKB

"Tom Bruhns" <k7itm@aol.com> wrote in message news:3200347.0406271007.e01c826@posting.google.com...
> Hi all...
>
> Continuing my downsizing. Free for pickup in the Seattle/Everett
> area: my homebrew doppler scanning DF antenna system, including the
> antenna structure, control box with compass rose LED readout, and
> cables. Worked well the last time I used it a few years ago. I
> believe the article describing this system was in May 1978 QST.
>
> Cheers,
> Tom

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

538. Re: OCXO module Spec's and Pinouts?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-27 21:42:52 UTC
From: "Leland C. Scott" <kc8ldo@arrl.net>
Message-ID: <ysidnYLqF8LIokLd4p2dnA@comcast.com>
Source record: 25170

"Jim Adney" <jadney@vwtype3.org> wrote in message
news:l5ocd09bsn024bgd91i7mnkg0r2c0cp4j3@4ax.com...
> On Sun, 20 Jun 2004 15:25:51 -0400 "Leland C. Scott" <kc8ldo@arrl.net>
> wrote:
>
> >Does anybody have the specifications and pinouts for the following
> >oscillator modules?
> >
> >Ovenaire OSC 48-11C Frequency 3.000 MHz
> >
> >Ovenaire-Audio-Carpenter OSC 91-21 Frerquency 44.736 MHz
>
> If you don't find that model on their web site, I've had good luck
> just calling them. They've emailed me the specs and pinouts of OCXOs
> I've picked up elsewhere.

Jim, I've had good luck as well doing the same, but Ovenaire has exchanged
hands several times through the years and had finally ended up with Corning
Frequency Products.

http://www.corningfrequency.com/default.htm

I've contacted Corning at least several times by E-mail and have received
zero response from them. On the other hand I have been very pleased with the
help I have gotten from Isotemp and Vectron. Both have sent me complete data
sheets even on old obsolete products! Now that is customer service.

http://www.isotemp.com/product.html
http://www.vectron.com/

--
Leland C. Scott
KC8LDO

Wireless Network
Mobile computing
on the go brought
to you by Micro$oft

539. Re: Free: RF magazines

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-27 22:12:23 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <bDHDc.22577$_5.15879@clgrps13>
Source record: 25171
Cross-posted to: sci.electronics.design,rec.radio.amateur.homebrew

Behold, Tom Bruhns signalled from keyed 4-1000A filament:

> Gregg <nospam@unknown.org> wrote in message
> news:<QgvDc.19514$HS3.14178@edtnps84>...
>> Behold, Tom Bruhns signalled from keyed 4-1000A filament:
>>
>> > Hi all,
>> >
>> > Free for pickup in the Seattle-Everett area: ===============
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>> > 2002 ===============
>> >
>> > These would be too expensive to ship...
>> >
>> > They'll go into the recycle about July 1 if nobody claims them.
>> >
>> > Cheers,
>> > Tom
>>
>> Greetz Tom,
>>
>> I live 4-1/2 hours north of you in Chilliwack, BC.
>>
>> Shipping for that lot couldn't be too much to me.
>
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> Win has the RF Design mags. What's left is the Microwave Journal and
> Applied Microwave & Wireless. The total weight is close to 70 pounds,
> and by splitting it into two packages, it could ship for $62. (In a
> single package, it was some silly amount like $180, because they only do
> express shipments for heavy stuff, I guess. This is through US Postal
> Service. UPS would be about $71 for ground service.)

Odd.... When I worked for Polaris Water, we sent 1-1/2 ton pallets to
Seattle via train for the same amount...

> Still interested?

I'll check shipping via Burlington Northern, and get back to ya ;-)

> I'm suspecting it's recycle time for those.
>
> Cheers,
> Tom

--
Gregg
It's probably useful, even if it can't be SPICE'd
http://geek.scorpiorising.ca

540. Re: _Interesting_ antenna: the "RUZ"

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-27 22:14:49 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <tFHDc.22616$_5.19007@clgrps13>
Source record: 25172

Behold, Gregg signalled from keyed 4-1000A filament:

> Looks like the E-field generator section of a CFA (Cross-Field Antenna).
>
> Anybody else notice this?
>

Duhhhh.....the page took 5 minutes to load and I see he says it's related
to the CFA.

--
Gregg
It's probably useful, even if it can't be SPICE'd
http://geek.scorpiorising.ca

541. Re: _Interesting_ antenna: the "RUZ"

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-27 22:19:42 UTC
From: Sverre Holm <la3za.0junk4me@qsl.net>
Message-ID: <cbnh6mits1@maud.ifi.uio.no>
Source record: 25173

> It's described on <http://www.qsl.net/ka5ruz/>. He calls it the "RUZ"
> antenna.

It looks fairly simple to build, simpler than other CFA or EH antenna
descriptions I have ssen, so maybe I will give it a try this summer?

"The proof of the pudding lies in the eating"

--
Sverre Holm, LA3ZA
---
www.qsl.net/la3za

542. extra power cabe through auto filewall

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-27 23:01:27 UTC
From: "Ralph Blach"
Message-ID: <10dukh3f71j2i02@corp.supernews.com>
Source record: 25174

How do I run an extra power cable through a 1996 dodge caravan's fire wall? I really do not want to drill a hole through the file wall for obvious reasons. I have looked all over the firewall
and cant seem to find an obvious place to run the power cable.

I want to run a high power ham radio and other equimement.

Thanks

Chip Blach

543. Re: extra power cabe through auto filewall

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-28 00:38:59 UTC
From: roy <roy@nospam.com>
Message-ID: <40DF68A2.3A85AD9@nospam.com>
Source record: 25175

hi chip,

Most of the time you can follow the hood release cable through
the firewall and it will pass the battery on the way to the hood latch.

You can fish the power cables one at a time through the same
gromet the hood cable uses. Little silicone sealer will finish the job.

If you get rid of the car, easy to remove the cable for use later.

Not sure how many amps you will draw, #6 thhn is the minimum
that I use for my two meter rigs. Be sure to fuse them accordingly.

Ralph wrote:

> How do I run an extra power cable through a 1996 dodge caravan's fire
> wall? I really do not want to drill a hole through the file wall for
> obvious reasons. I have looked all over the firewall
> and cant seem to find an obvious place to run the power cable.
>
> I want to run a high power ham radio and other equimement.
>
> Thanks
>
> Chip Blach

544. Re: extra power cabe through auto filewall

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-28 00:39:15 UTC
From: roy <roy@nospam.com>
Message-ID: <40DF68B3.4FB7F68E@nospam.com>
Source record: 25176

hi chip,

Most of the time you can follow the hood release cable through
the firewall and it will pass the battery on the way to the hood latch.

You can fish the power cables one at a time through the same
gromet the hood cable uses. Little silicone sealer will finish the job.

If you get rid of the car, easy to remove the cable for use later.

Not sure how many amps you will draw, #6 thhn is the minimum
that I use for my two meter rigs. Be sure to fuse them accordingly.

Ralph wrote:

> How do I run an extra power cable through a 1996 dodge caravan's fire
> wall? I really do not want to drill a hole through the file wall for
> obvious reasons. I have looked all over the firewall
> and cant seem to find an obvious place to run the power cable.
>
> I want to run a high power ham radio and other equimement.
>
> Thanks
>
> Chip Blach

545. Re: question about cell phone boosters

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-28 03:34:27 UTC
From: Jim Pennell <Nospam@killspam.com>
Message-ID: <7IMDc.15814$w07.15047@newsread2.news.pas.earthlink.net>
Source record: 25177

Oh, I agree that the power control is a major part of why cellphones work as well as they do....

I was making a point that people need to consider cellphones as relatively short range radios. There is a tenancy to expect cellphones to work all the time, anywhere. But, most radio systems DON'T work that well.

As for boosters, the ones I've seen ARE passive. An active booster system would be fairly expensive. If they really worked, the cellphone manufacturers would have them as an option and just about everbody would own one.

Jim Pennell
N6BIU

546. Re: TS-520 Oscillator Problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-28 04:59:44 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10dv9dmdvhe2o65@corp.supernews.com>
Source record: 25178
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

Eskay wrote:

> On Tue, 22 Jun 2004 11:57:49 -0700, Tim Wescott wrote:
>
>
>>Eskay wrote:
>>
>>
>>>On Tue, 22 Jun 2004 10:09:12 -0700, Tim Wescott wrote:
>>>
>>>
>>>
>>>>I have a Kenwood TS-520 sitting on my shelf with a severe VFO problem.
>>>>The oscillator frequency intermittently goes unstable, when the
>>>>oscillator doesn't cut out completely. The problem will go away if the
>>>>tuning knob is bumped a bit, and it seems to be worse at the higher
>>>>frequency portion of a band. The radio is unreliable for receiving, and
>>>>is not good enough to even think about transmitting.
>>>>
>>>>Without having ripped into the oscillator yet, I am theorizing that
>>>>there is a bad connection on the main tuning capacitor. Before I _do_
>>>>tear things apart, I wanted to ask:
>>>>
>>>>1. Has anyone out there seen a similar problem? What did it end up being?
>>>>
>>>>2. The oscillator in this rig is well buried, and will take some
>>>>careful disassembly to expose. Do any of you have a manual that details
>>>>this operation, or have you done it yourself? I'm well capable of doing
>>>>it as-is, but if there's a known best way to do it I'd like to start there.
>>>>
>>>>Thanks in advance.
>>>
>>>
>>>Hi,,I am assuming that the VFO in the 520 is very similar to the one in the
>>>TS 820 that I used to own.
>>>The frequency counter did not always work in certain spots on the dial, and
>>>of course the radio went dead at the same time.
>>>I finally broke down and removed the VFO from the radio and opened the VFO
>>>up. The main bearing of the tuning capacitor was not always making contact
>>>because of dried up lubricant.
>>>Don't remember for sure what I did to clean it, I used vaseline to
>>>lubricate and reassembled the whole thing..It worked OK after that..
>>> 73 de Sieb VE3JUA.

>>
>>That sounds very plausible. I got the radio at a hamfest, and I think I
>>know why...
>>
>>Did you have any trouble getting the oscillator out, or was it just a
>>matter of taking the usual care with such things? On my 520 it looks
>>like I have to go through a few layers to get to the VFO case.
>
>
> Not a great deal of trouble but be carefull to remember the sequence of
> removal..73 de Eskay.

With Ed's link to a manual I think I know how to do it -- it _should_
have occurred to me to take the front panel off!

Now I just need to find the time, and if the bearings _are_ dried out
I'll need to decide what to put back in.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

547. C-MAC 1.44MHz BandB. Looking for In-/Out-Inpedance

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-28 06:26:00 UTC
From: Markus Wolfgart <xx_markus.wolfgart@dlr.de>
Message-ID: <40DFB9F8.8060600@dlr.de>
Source record: 25179

Hallo NG,

from my visit of the ham radio in Friedrichshaven, last weekend,
I get some c-mac crystal filters in the hope I could use them for cw.
The filter is labeled as
CMAC EP089.3910
1.44MHz-BandP, B:150Hz
768JAB
Date-Code: 9804 No.: 28654

When trying to match it with 600, 800, 1000 Ohm
by a LC-network (calculated by RF-Sim 99)
(R=600,L=18u,C=618p; R=800,L=21u,C=535p; R=1000,L=24u,C=480p)
I get a Bandwidth of about 300Hz/6dB and the 50-Ohm output
of my HP-Synthesizer goes down to 1/4th of the 10mV I supply
to the Filter and not to 5mV like expected.
Looks like the filter impedance was transformed to about 16 Ohm.
Was my assumption that the filter impedance lies between 600
and 1000 ohm wrong (looks like it was ;-).
When looking at www.cmac.com I was not to able to find any info's
on that certain filter.

Could someone of You provide me the right filter data for the proper
matching.

Many thanks in advance

==========

Markus Wolfgart
DL8MBY

DLR

==========
PS.: remove the xx_ from email adr. to reply
==========

548. Re: Free: RF magazines

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-28 07:12:14 UTC
From: k7itm@aol.com
Message-ID: <3200347.0406272312.77b865a@posting.google.com>
Source record: 25180

"Lou" <FFSTA17N0@SPAMACCESS995.COM> wrote in message
news:<zNBDc.1353$Wd.2098@ord-read.news.verio.net>...
> MEDIA MAIL - OR - MAYBE BUNDLED MAIL (depending on quantity) would be your
> best approach. It is less than Parcel and so on, but takes a bit longer. You
> can still insure it (at least media, not sure of bundled) and get a tracker
> on it. If the parties are willing to pay to ship, why not? At least you'll
> get rid of them.
>
> Lou

Media mail doesn't work for (most) magazines because there's
advertising in them. Sorry. -- And for sure I'll get rid of them.
Paper recycle is free here. But I'd rather they go to someone who
would use them, if there happens to be anyone out there like that.
Got rid of about 300 pounds of QST that way on Friday, and got back a
thank-you that the fellow had already used them to look up a reference
he saw on the web.

Cheers,
Tom

549. Re: FA JOYMATCH 111A AERIAL MATCHING UNIT "A Classic of its time and a collectable of the future" Practical Wireless magazine 1991

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-28 07:14:26 UTC
From: igoruberwald@home.nl
Message-ID: <e9b53b2a.0406272314.227e5580@posting.google.com>
Source record: 25181
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.equipment,rec.radio.amateur.boatanchors

abe@quest.cc.purdue.edu (Victor A Abell) wrote in message
news:<abe.1088371625@quest.cc.purdue.edu>...
>
> However, my JoyMatch, which I still have, doesn't look anything like
> the one on Ebay. Mine is a simple L network tuner, nicely made of a
> tapped coil on PVC and a 365pf capacitor in an open configuration
> without cabinet. A label on the coil says JoyMatch.

I wonder just how many different versions there are? Mine (Joymatch
IIIb) is in a very solid Hammerite-finished case with coloured plastic
covers front and rear. It's just an ordinary L-match inside - although
reasonably well-made. Oddly enough there's no provision for a
ground/earth connection at all on the tuner itself: that must have
caused a few surprises to unwary users in the past :-)

145, Pete/Igor PH1PH - G7ECN WallyWatcher #001
"Far more Advanced than any Sad Old Fartï¿½ 'Class A'"

550. Re: FT 480R fault - 147.000 MHz on TX

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-28 07:41:12 UTC
From: g1lvn <news@MYCALLSIGN.com>
Message-ID: <cboi2ojqp1@sparta.btinternet.com>
Source record: 25182
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

"Airy R. Bean" <ariy.r.bean@lycos.co.uk> wrote in message
news:2k5q1hF17inlmU1@uni-berlin.de...
> I've a FT 480R that has remained unused for at least two years.
>
>>
> It goes to 147 MHz on TX irrespective of the mode - CW/SSB/FM and
> irrespective of the RX frequency be it 144.300 or 145.500..
>

careful, you need an amateur radio licence to operate such a radio. Enquire
at your local amateur radio club or www.rsgb.org.uk for details of
foundation licence classes in your area.

551. Re: extra power cabe through auto filewall

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-28 13:05:54 UTC
From: "Ralph Blach"
Message-ID: <10e05tfjorof103@corp.supernews.com>
Source record: 25183

Roy,

Thanks

Chip

roy wrote:
> hi chip,
>
> Most of the time you can follow the hood release cable through
> the firewall and it will pass the battery on the way to the hood latch.
>
> You can fish the power cables one at a time through the same
> gromet the hood cable uses. Little silicone sealer will finish the job.
>
> If you get rid of the car, easy to remove the cable for use later.
>
> Not sure how many amps you will draw, #6 thhn is the minimum
> that I use for my two meter rigs. Be sure to fuse them accordingly.
>
>
> Ralph wrote:
>
>
>>How do I run an extra power cable through a 1996 dodge caravan's fire
>>wall? I really do not want to drill a hole through the file wall for
>>obvious reasons. I have looked all over the firewall
>>and cant seem to find an obvious place to run the power cable.
>>
>>I want to run a high power ham radio and other equimement.
>>
>>Thanks
>>
>>Chip Blach
>
>

552. looking for 2sk2975.pdf or RD07MVS... do you know a good vendor?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-28 13:09:28 UTC
From: Matt <matthieub@tareum.freeserve.co.uk>
Message-ID: <40e01888$0$7955$626a14ce@news.free.fr>
Source record: 25184

I am trying to buy a few 2sk2975 or the RD07MVS for a fried FT-817.
Can you point to a known retailer?

Thanks

Matthieu

553. Re: question about cell phone boosters

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-28 13:40:03 UTC
From: Doug Smith W9WI <w9wi@invalid.invalid>
Message-ID: <40E01FAA.1050209@invalid.invalid>
Source record: 25185

Joe wrote:
> Do cell phone boosters really work, or is it just more hype to get you to
> part with your dollars? In an area where there are hills and valleys,
> sometimes I can't get a very good signal in the valleys. It seems like I get
> calls all the time when I am in an area of poor reception. Has anyone had
> any experience with these?

Snake oil.

I suppose the idea is that the booster couples to the antenna, and concentrates the phone's power along the horizon. That keeps you from wasting power shot into outer space, making it more likely that power will reach the base station. Same thing can happen in reverse: by making the antenna more sensitive to signals arriving along the horizon (where they come from) rather than those coming from outer space. (where there are no base stations<grin>)

Problem is... that the design won't work.

The ones I've seen are designed to insert in front of the battery. This location has a few problems:

- The battery, which is mostly metal, shields anything inserted in front of it. Including the booster.

- Any metal in the phone (including the battery, and the original antenna) affects the directivity of the booster - its ability to concentrate power along the horizon. Since the booster is not directly attached to the antenna, the metal in the phone also affects the indirect coupling of the booster to the antenna.

Every phone is different. The size, the shape, how far the battery is from the antenna, it's all different from phone to phone. This means that a single booster design cannot possibly work with every phone. There would have to be a specific design for your phone.

- In any case, the boosters I've seen don't match any valid antenna design I'm aware of. (they really look a lot like the "laundry tickets" we used to use in the dorms at the University of Wisconsin back in the 1970s!) (I wouldn't be too horribly surprised to learn they *are* laundry tickets...)

It is certainly possible to build a cell phone booster. It would have to be custom-designed for your phone. And most users would regard them as impractically large and cumbersome. (probably not eye-doctor-approved, they'd be a serious poking hazard!)
--

Doug Smith W9WI
Pleasant View (Nashville), TN EM66
http://www.w9wi.com

554. FT-101ZD problem.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-28 16:17:25 UTC
From: Willy <f4uiu_nospam@wanadoo.fr>
Message-ID: <cbpgao$19i$1@news-reader3.wanadoo.fr>
Source record: 25186

73 to all.
I'm just on this forum for a few weeks and i have already a question.
A friend of mine own an antique FT101ZD (latest model with WARC bands) and his transceiver has a problem.
After a few minutes, the reception stops and the frequency counter displays erratic numbers.
Sometimes, all becomes normal by leaving it OFF a few minutes (or hours).
We think that probably comes from circuits common for TX and RX like VFO or PREMIX, but we are a little lost.

If someone has some informations about this kind of problem, or a logic method to find the solution, it would be very interesting for us.

Hope you can understand my english.
73 and thanks in advance.

Guillaume

(Please, remove _nospam in my e-mail adress for direct answer).

555. Re: FT-101ZD problem.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-28 17:28:12 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10e0l938evr0gc8@corp.supernews.com>
Source record: 25187

Willy wrote:

> 73 to all.
> I'm just on this forum for a few weeks and i have already a
> question.
> A friend of mine own an antique FT101ZD (latest model with WARC
> bands) and his transceiver has a problem.
> After a few minutes, the reception stops and the frequency
> counter displays erratic numbers.
> Sometimes, all becomes normal by leaving it OFF a few minutes (or
> hours).
> We think that probably comes from circuits common for TX and RX
> like VFO or PREMIX, but we are a little lost.
>
> If someone has some informations about this kind of problem, or a
> logic method to find the solution, it would be very interesting
> for us.
>
> Hope you can understand my english.
> 73 and thanks in advance.
>
>
> Guillaume
>
> (Please, remove _nospam in my e-mail adress for direct answer).
>
>
>

First, don't apologize for your English -- as written it's better than many native English speakers manage.

Second, I haven't worked on the FT101, but one basic procedure is to identify a signal that should be there (like the signal out of the VFO) and see if it's there and of the expected strength. If you have an oscilloscope that's dandy, but an RF probe will be enough to make sure that you have signal.

Having a problem that goes away like that is a plus, because you can put your probe on a suspect signal and look for it changing as the radio fails.

It sounds like you've got some component failing due to heat. I _think_ the FT101 is a hybrid, with semiconductors and tubes -- is that right? If so, the problem is either a transistor or diode that's on the edge of failing but works at room temperature, or you've got some other circuit fault thats getting something really hot. Once you find your problem

signal you can start looking for hot components (I use my much-burned fingers), or you can get some freeze spray and look for components that want to be cool.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

556. Re: FT-101ZD problem.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-28 17:55:20 UTC
From: Paul_Morphy <nopaul_morphy2@coolgoose.com>
Message-ID: <cYYDc.154591$Gx4.139598@bgtnsc04-news.ops.worldnet.att.net>
Source record: 25188

"Tim Wescott" <tim@wescottnospamdesign.com> wrote in message
news:10e0l938evr0gc8@corp.supernews.com...

> Having a problem that goes away like that is a plus, because you can put
> your probe on a suspect signal and look for it changing as the radio
fails.

Good suggestions. I would add that you should find out if it happens on all bands (you didn't say). If so, then the VFO or premixing circuits may be the problem. If you know the VFO frequency you can listen for it on another receiver, with an antenna wire close to the VFO box. You can make a simple RF probe for your voltmeter. Here is a link: http://www.io.com/~n5fc/rfprobe1.htm You don't have to worry about the exact voltage now. Just find out where the voltage drops when the radio quits working. Start at the output of the VFO and follow the signal through. In addition to a part that fails when it gets hot, you may also find a bad solder connection on a circuit board, that also fails when it gets hot. Or the pin on a connector may be corroded (or loose, and bending enough under heat to break the connection). If you follow the signal from the beginning, you will eventually find the place where it stops. Then you know where to look. (Hint: Look for signs of overheating, like a dark place on the bottom of a circuit board.) Bad solder connections are sometimes very hard to see. If you suspect one, you can reheat it and see if that fixes the problem.

73,

"PM"

557. Re: question about cell phone boosters

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-28 18:35:33 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <cbpohs$s9o$1@newshost.mot.com>
Source record: 25192

"Joe" <nuisancewildlife@nospamearthlink.net> wrote in message
news:B%mDc.15326$bs4.1771@newsread3.news.atl.earthlink.net...
> Do cell phone boosters really work, or is it just more hype to get you to
> part with your dollars? In an area where there are hills and valleys,
> sometimes I can't get a very good signal in the valleys. It seems like I
get
> calls all the time when I am in an area of poor reception. Has anyone had
> any experience with these?

The only passive "booster" which would have any hope of providing _some_
benefit would be something like this:

Mount a gain antenna on the roof of your car. Note that this won't work for
hand held units walking along -- unless you made a gain antenna which you
could carry around. Run a coax from this antenna into the car and place
another antenna _close_ to the cell phone antenna. Things like this are
used in tunnels, I believe.Granted, this is pretty "loose", but can provide
some increase in signal both ways.

When demo-ing the very first hand held analog phones a l o n g time ago, we
used such a setup, but needed amplifiers for both directinos in the line
(with suitable filters).

--
Steve N, K,9;d, c. i My email has no u's.

558. T-Kit 1054 Regen Schematic?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-28 18:38:51 UTC
From: haf47@juno.com
Message-ID: <f03bf94f.0406281038.4eb762af@posting.google.com>
Source record: 25189

Hello and thanks for reading...

I am seeking a schematic of the TenTec 1054 Regen receiver.

A pretty good search on the net has been met with no success. Have you scanned, or do you know of someone who has scanned this, and would you like to send me a copy?

Of course, a website where this can be found would be just dandy too.

Thanks for any possible help, de WA2AFD

559. Re: extra power cabe through auto filewall

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-28 18:43:25 UTC
From: "Carl R. Stevenson" <wk3cqth@wk3c.com>
Message-ID: <k-SdnYD63oKa-n3dUSdV9g@ptd.net>
Source record: 25190

"Ralph Blach" <rblach@NOSPAMintrex..XXXnet> wrote in message
news:10dukh3f71j2i02@corp.supernews.com...
> How do I run an extra power cable through a 1996 dodge caravan's fire
> wall? I really do not want to drill a hole through the file wall for
> obvious reasons. I have looked all over the firewall
> and cant seem to find an obvious place to run the power cable.
>
> I want to run a high power ham radio and other equimement.
>
> Thanks
>
> Chip Blach
>

Chip,

Take a *close* look at the rubbery seal/"boot" where the steering shaft comes through the firewall.

On my 2003 Ford Explorer, there was *plenty* of room to cut a small slit with an x-acto knife well below, and out of the range of motion of the steering shaft. I then made sure it was secured out of the range of motion of the shaft on *both* sides of the firewall, going to the driver's side under the hood to the battery (with 25A in-line fuses in BOTH positive and negative leads) and under the carpet to the driver's side wiring channel that runs under the door "thresholds" (which simply snap in/out on the Explorer (the body of the FT-857 is located under the rear, driver's side seat and the control head is mounted on the center console in a good operating position using a Panavise mount I got from HRO ...)

One more hint ... to check out clearances on BOTH sides of the firewall, I used a long, heavy needle probe (about a 3" needle in a plastic handle about 6" long) to probe the spot I thought looked good from a beforehand visual on both sides (the needle punches a small, self-sealing hole, but allows you to see exactly where you are on both sides of the firewall). Then, when satisfied, I used about a 1/2" wide x-acto knife blade to cut a slit (not a hole) that I could push 2 #8 insulated wires through ... a red for positive and a black for negative (it's actually a very heavy-duty "zip cord" that I got from
http://www.powerwerx.com/category.asp?CtgID=1002 (they also have the in-line fuse holders for automotive type fuses, etc.)

Now, this worked just fine on my Explorer ... on your vehicle, YMMV, but I hope the suggestions are helpful.

73,
Carl - wk3c

560. Re: extra power cabe through auto filewall

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-28 18:51:22 UTC
From: "Ralph Blach"
Message-ID: <10e0q52hpme7ubc@corp.supernews.com>
Source record: 25191

One would think that with all the high power audio, the car manufactures
would make this easy.

Chip

Carl R. Stevenson wrote:
> "Ralph Blach" <rblach@NOSPAMintrex..XXXnet> wrote in message
> news:10dukh3f71j2i02@corp.supernews.com...
>
>>How do I run an extra power cable through a 1996 dodge caravan's fire
>>wall? I really do not want to drill a hole through the file wall for
>>obvious reasons. I have looked all over the firewall
>>and cant seem to find an obvious place to run the power cable.
>>
>>I want to run a high power ham radio and other equimement.
>>
>>Thanks
>>
>>Chip Blach
>>
>
>
> Chip,
>
> Take a *close* look at the rubbery seal/"boot" where the steering shaft
> comes through the firewall.
>
> On my 2003 Ford Explorer, there was *plenty* of room to cut a small slit
> with an x-acto knife well below, and out of the range of motion of the
> steering shaft. I then made sure it was secured out of the range of motion
> of the shaft on *both* sides of the firewall, going to the driver's side
> under the hood to the battery (with 25A in-line fuses in BOTH positive and
> negative leads) and under the carpet to the driver's side wiring channel
> that runs under the door "thresholds" (which simply snap in/out on the
> Explorer (the body of the FT-857 is located under the rear, driver's side
> seat and the control head is mounted on the center console in a good
> operating position using a Panavise mount I got from HRO ...)
>
> One more hint ... to check out clearances on BOTH sides of the firewall, I
> used a long, heavy needle probe (about a 3" needle in a plastic handle about
> 6" long) to probe the spot I thought looked good from a beforehand visual on
> both sides (the needle punches a small, self-sealing hole, but allows you
> to see exactly where you are on both sides of the firewall). Then, when
> satisfied, I used about a 1/2" wide x-acto knife blade to cut a slit (not a
> hole) that I could push 2 #8 insulated wires through ... a red for positive

> and a black for negative (it's actually a very heavy-duty "zip cord" that I
> got from
> http://www.powerwerx.com/category.asp?CtgID=1002 (they also have the
> in-line fuse holders for automotive type fuses, etc.)
>
> Now, this worked just fine on my Explorer ... on your vehicle, YMMV, but I
> hope the suggestions are helpful.
>
> 73,
> Carl - wk3c
>

561. Re: extra power cabe through auto filewall

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-28 19:12:20 UTC
From: "Gary S." <Idontwantspam@net>
Message-ID: <ear0e0ddifcg5h379910g2nvug9fmqibrg@4ax.com>
Source record: 25193

On Mon, 28 Jun 2004 14:51:22 -0400, Ralph Blach
<rblach@NOSPAMintrex..XXXnet> wrote:

>One would think that with all the high power audio, the car manufactures
>would make this easy.
>
They really don't think to make things easy for DIY installations.

Happy trails,
Gary (net.yogi.bear)
---
at the 51st percentile of ursine intelligence

Gary D. Schwartz, Needham, MA, USA
Please reply to: garyDOTschwartzATpoboxDOTcom

562. Re: T-Kit 1054 Regen Schematic?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-28 19:33:23 UTC
From: "Harold E. Johnson" <W4ZCB@mchsi.com>
Message-ID: <7o_Dc.129800$0y.15093@attbi_s03>
Source record: 25194

"Howard" <haf47@juno.com> wrote in message
news:f03bf94f.0406281038.4eb762af@posting.google.com...
> Hello and thanks for reading...
>
> I am seeking a schematic of the TenTec 1054 Regen receiver.
>
> A pretty good search on the net has been met with no success. Have you
> scanned, or do you know of someone who has scanned this, and would you
> like to send me a copy?
>
> Of course, a website where this can be found would be just dandy too.
>
> Thanks for any possible help, de WA2AFD

In your mailbox

W4ZCB

563. Re: extra power cabe through auto filewall

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-28 19:41:24 UTC
From: Allodoxaphobia <bit-bucket@config.com>
Message-ID: <slrnce0t5k.slr.bit-bucket@walnut.config.com>
Source record: 25195

On Mon, 28 Jun 2004 18:43:25 -0000, Carl R. Stevenson hath writ:
>
> "Ralph Blach" <rblach@NOSPAMintrex..XXXnet> wrote in message
> news:10dukh3f71j2i02@corp.supernews.com...
>> How do I run an extra power cable through a 1996 dodge caravan's fire
>> wall? I really do not want to drill a hole through the file wall for
>> obvious reasons. I have looked all over the firewall
>> and cant seem to find an obvious place to run the power cable.
>> I want to run a high power ham radio and other equimement.
>
> Take a *close* look at the rubbery seal/"boot" where the steering shaft
> comes through the firewall.
>
> On my 2003 Ford Explorer, there was *plenty* of room to cut a small slit
> with an x-acto knife well below, and out of the range of motion of the
> steering shaft. I then made sure it was secured out of the range of motion
> of the shaft on *both* sides of the firewall, going to the driver's side
> under the hood to the battery (with 25A in-line fuses in BOTH positive and
> negative leads) and under the carpet to the driver's side wiring channel
> that runs under the door "thresholds" (which simply snap in/out on the
> Explorer (the body of the FT-857 is located under the rear, driver's side
> seat and the control head is mounted on the center console in a good
> operating position using a Panavise mount I got from HRO ...)
>
> One more hint ... to check out clearances on BOTH sides of the firewall, I
> used a long, heavy needle probe (about a 3" needle in a plastic handle about
> 6" long) to probe the spot I thought looked good from a beforehand visual on
> both sides (the needle punches a small, self-sealing hole, but allows you
> to see exactly where you are on both sides of the firewall). Then, when
> satisfied, I used about a 1/2" wide x-acto knife blade to cut a slit (not a
> hole) that I could push 2 #8 insulated wires through ... a red for positive
> and a black for negative (it's actually a very heavy-duty "zip cord" that I
> got from
> http://www.powerwerx.com/category.asp?CtgID=1002 (they also have the
> in-line fuse holders for automotive type fuses, etc.)
>
> Now, this worked just fine on my Explorer ... on your vehicle, YMMV, but I
> hope the suggestions are helpful.

As well, I found an existing rubber grommet/wire harness pass-thru about
dead center on the firewall that had plenty of extra "skirt". I was able
to use an awl to poke/punch a hole in this extra "skirt" next to the existing
wire harness. After pulling 2 10 ga. wires through my "new" hole, I
slathered some RTV on both sides to (re)weather proof it.

HTH
73
Jonesy
--
| Marvin L Jones | jonz | W3DHJ | linux
| Gunnison, Colorado | @ | Jonesy | OS/2 __
| 7,703' -- 2,345m | config.com | DM68mn SK

564. Re: question about cell phone boosters

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-28 19:53:59 UTC
From: tk <gamach1@ispwest.com>
Message-ID: <cbpt1k015ss@enews3.newsguy.com>
Source record: 25196

Jim Pennell wrote:
> Cell phone boosters that I know about are all hype.
>
> A cell phone is a low power radio, basically similar to one of the walkie
> talkies that kids played with. Due to the limited power on Tx, I am amazed
> they work as well as they do.
>
> Still, they only work when you are more or less in line of sight of one of
> the cell Tower antenna systems. Surrounded by hills, valleys, or tall
> buildings, you are usually going to get poor reception.
>
> The so called boosters tend to be flashy metal plates and such which claim
> to focus the radio waves to get more range. Problem is even if they DID
> focus the radio signals, which they don't, it would be a directional signal
> and if you moved the phone away from the exact location, it would lose the
> signal....
>
>
> Jim
> N6BIU
>
>
They are as good as the $19.95 decals that were hyped on TV a year or so
ago. Those are now sold as a joke for $.25 and not worth that amoumt

Ted in Atlanta

565. Re: question about cell phone boosters

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-28 20:32:14 UTC
From: Joe <nuisancewildlife@nospamearthlink.net>
Message-ID: <if%Dc.17593$bs4.16951@newsread3.news.atl.earthlink.net>
Source record: 25197

"Steve Nosko" <suteuve.nosukowicuz@moutouroula.com> wrote in message
news:cbpohs$s9o$1@newshost.mot.com...
>
> "Joe" <nuisancewildlife@nospamearthlink.net> wrote in message
> news:B%mDc.15326$bs4.1771@newsread3.news.atl.earthlink.net...
> > Do cell phone boosters really work, or is it just more hype to get you
to
> > part with your dollars? In an area where there are hills and valleys,
> > sometimes I can't get a very good signal in the valleys. It seems like I
> get
> > calls all the time when I am in an area of poor reception. Has anyone
had
> > any experience with these?
>
>
> The only passive "booster" which would have any hope of providing _some_
> benefit would be something like this:
>
> Mount a gain antenna on the roof of your car. Note that this won't work
for
> hand held units walking along -- unless you made a gain antenna which you
> could carry around. Run a coax from this antenna into the car and place
> another antenna _close_ to the cell phone antenna. Things like this are
> used in tunnels, I believe.Granted, this is pretty "loose", but can
provide
> some increase in signal both ways.
>
> When demo-ing the very first hand held analog phones a l o n g time ago,
we
> used such a setup, but needed amplifiers for both directinos in the line
> (with suitable filters).
>
> --
> Steve N, K,9;d, c. i My email has no u's.
>
>

Thanks everyone, I get the picture.

Joe
KB1KVI

566. Re: FT-101ZD problem.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-28 21:24:30 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <i00Ec.13624$l6.4418@clgrps12>
Source record: 25198

The FT101ZD is "THE" most popular rig for an 11 meter conversion that I know of. Yup, she's a hybrid. Along with all the superb advice given, I'd like to add watch the interboard connections. Sometimes a little re-dressing can cure a lot of problems.

--
Gregg
It's probably useful, even if it can't be SPICE'd
http://geek.scorpiorising.ca

567. Re: High Voltage Components from microwave ovens

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-28 22:48:03 UTC
From: Wim Ton <wimton@blueyonder.co.uk>
Message-ID: <Fe1Ec.1279$BZ2.626@fe1.news.blueyonder.co.uk>
Source record: 25199
Cross-posted to: sci.electronics.repair,rec.radio.amateur.homebrew

Hi, I lost the link and the newsserver did not like the 1.3 Mb pdf I attached. Please mail me and I send it directly to you .This is my real address as the account is spammed anyway :-(The article is not findable with a search engine, I stumbled upon it.

Wim

"Albert" <pass@pass.com> wrote in message news:gbqqd05kgee2uo2pnj7k2hhhfa4hlrabrm@4ax.com...
> Yes, please publish the link Wm, and thanks.
>
>
> On Fri, 25 Jun 2004 22:42:38 +0100, "Wim Ton"
> <wimton@blueyonder.co.uk> wrote:
>
> >
> >"Albert" <pass@pass.com> wrote in message
> >news:2gjld05tq6bcqg96m82r5mc3cvre2gcj9p@4ax.com...
> >> Are old high voltage components from microwave ovens useful, or should
> >> I chuck them out in the trash?
> >>
> >> I have several transformers that look like they are good for quite a
> >> few watts of power, some of the high voltage diodes and several
> >> blowers. I've been saving them.
> >>
> >> Can they be used for power supplies for rf transmitters? Are the
> >> blowers any good for cooling large tubes in transmitters?
> >>
> >Of course you can use the diodes and the capacitors ;-)
> >There are some articles on th Internet about converting the transformer for
> >a spot welder.
> >A also saw an article on using the magnetron as a PLL like amplifier to put
> >out 1kw at 13 cm. I can forward the link if you want.
> >
> >Wim
> >
> >
> >
> >
>
>
>

> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 100,000 Newsgroups - 19 Different Servers! =-----

568. how to make a 50::100 balun?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-29 00:18:15 UTC
From: sdeyoreo@hotmail.com
Message-ID: <v3d1e0p8ll2uoob8ka5fr6r31vikhkhkgp@4ax.com>
Source record: 25200

I'm testing some 10/100 ethernet transformers and I need a 50:100 ohm balun for 30 - 80 MHz. How do I make one? (I need to measure return losses on the transformer. The spec is LT -18 db.)

569. Re: extra power cabe through auto filewall

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-29 00:27:40 UTC
From: ablight@alphalink.com.au
Message-ID: <1fc7b362.0406281627.5eb0ba59@posting.google.com>
Source record: 25201

Ralph Blach <rblach@NOSPAMintrex..XXXnet> wrote in message
news:<10dukh3f71j2i02@corp.supernews.com>...
> How do I run an extra power cable through a 1996 dodge caravan's fire
> wall? I really do not want to drill a hole through the file wall for
> obvious reasons. I have looked all over the firewall
> and cant seem to find an obvious place to run the power cable.
>
> I want to run a high power ham radio and other equimement.
>
> Thanks
>
> Chip Blach

Its not normally a problem, except for running your drill through
something important - go to your auto parts store and buy the
appropriate size grommet to fit the hole you are drilling, and at the
same time buy a blank grommet so you can fill the hole when you sell
the vehicle.

There is probably some legal reason why you shouldnt do this
(structural integrity of motor vehicle regulations) but, hey, does it
really matter?

73 de VK3BFA Andrew

570. Re: OCXO module Spec's and Pinouts?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-29 01:12:56 UTC
From: Jim Adney <jadney@vwtype3.org>
Message-ID: <9b4vd0l1t0u79f0tafdv7r8f75bmpn1bqe@4ax.com>
Source record: 25202

On Sun, 27 Jun 2004 17:42:52 -0400 "Leland C. Scott" <kc8ldo@arrl.net>
wrote:

>"Jim Adney" <jadney@vwtype3.org> wrote in message

>> If you don't find that model on their web site, I've had good luck
>> just calling them. They've emailed me the specs and pinouts of OCXOs
>> I've picked up elsewhere.
>
>Jim, I've had good luck as well doing the same, but Ovenaire has exchanged
>hands several times through the years and had finally ended up with Corning
>Frequency Products.

You're probably right. I recently contacted Isotemp and Railtron and
got good results. I don't believe I have contacted Ovenaire.

OTOH, I have sometimes had better luck just calling vendors rather
than emailing. I think they find a phone call harder to ignore than an
email.

-

Jim Adney jadney@vwtype3.org
Madison, WI 53711 USA
---

571. Re: question about cell phone boosters

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-29 01:47:28 UTC
From: Allodoxaphobia <bit-bucket@config.com>
Message-ID: <slrnce1ik0.1j0o.bit-bucket@walnut.config.com>
Source record: 25203

```
On Mon, 28 Jun 2004 15:53:59 -0400, tk hath writ:
> Jim Pennell wrote:
>
>> Cell phone boosters that I know about are all hype.
>>
> They are as good as the $19.95 decals that were hyped on TV a year or so
> ago. Those are now sold as a joke for $.25 and not worth that amoumt

Fools and their money _should_ be parted.

Jonesy
--
| Marvin L Jones | jonz | W3DHJ | linux
| Gunnison, Colorado | @ | Jonesy | OS/2 __
| 7,703' -- 2,345m | config.com | DM68mn SK
```

572. Re: extra power cabe through auto filewall

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-29 09:59:37 UTC
From: Marty <NOSPAM_vk2umj@yahoo.com.au_NOSPAM>
Message-ID: <40e13d86_1@news.iprimus.com.au>
Source record: 25204

"Andrew VK3BFA" <ablight@alphalink.com.au> wrote in message
news:1fc7b362.0406281627.5eb0ba59@posting.google.com...
> Ralph Blach <rblach@NOSPAMintrex..XXXnet> wrote in message
news:<10dukh3f71j2i02@corp.supernews.com>...
> > How do I run an extra power cable through a 1996 dodge caravan's fire
> > wall? I really do not want to drill a hole through the file wall for
> > obvious reasons. I have looked all over the firewall
> > and cant seem to find an obvious place to run the power cable.
> >
> > I want to run a high power ham radio and other equimement.
> >
> > Thanks
> >
> > Chip Blach
>
> Its not normally a problem, except for running your drill through
> something important - go to your auto parts store and buy the
> appropriate size grommet to fit the hole you are drilling, and at the
> same time buy a blank grommet so you can fill the hole when you sell
> the vehicle.
>
> There is probably some legal reason why you shouldnt do this
> (structural integrity of motor vehicle regulations) but, hey, does it
> really matter?
>
> 73 de VK3BFA Andrew

Never been an issue - with all the cars I have installed radio equipment
into I can't remember any that I couldn't get power and antenna cables
through an existing hole just by adding another 'hole' to the grommet.
There's usually plenty of space in existing holes for wiring, etc, to add a
few more cables - hardest part is getting the cables through the grommet but
a little common sense and this isn't a problem.

Although I'm sure that if all else failed your suggestion would be the next
best option - if you use a blank grommet as you suggest upon removal, I
doubt anyone would even know the hole wasn't meant to be there.

Cheers

Martin, VK2UMJ

573. Re: FT-101ZD problem.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-29 21:39:19 UTC
From: Willy <f4uiu_nospam@wanadoo.fr>
Message-ID: <cbsnib$jp4$1@news-reader1.wanadoo.fr>
Source record: 25205

Thanks for those firsts advices.
At the first time, we have found some bad solders, but probably
not all the ones.
We have remplaced the electrochimic capacitors in the main power
supply, they were very "tired".
When the problem arrives, the reception is cut on all bands but
sometimes, the frequency counter continue to display good numbers
only on some bands.
We're going to continue to climb this mountain, meter by meter.
Thanks.

Guillaume.

574. Re: how to make a 50::100 balun?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-29 22:36:30 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <cbsr1n$g1q$1@newshost.mot.com>
Source record: 25206

I assume you want to measure them on a 50 ohm test system. A bit mathy, but
you could use a minimum loss T pad and include the pad's loss in the math...

For a transformer, ther turns ratio would be square root two...
--
Steve N, K,9;d, c. i My email has no u's.

<sdeyoreo@hotmail.com> wrote in message
news:v3d1e0p8ll2uoob8ka5fr6r31vikhkhkgp@4ax.com...
> I'm testing some 10/100 ethernet transformers and I need a 50:100 ohm
> balun for 30 - 80 MHz. How do I make one? (I need to measure return
> losses on the transformer. The spec is LT -18 db.)

575. Bypass caps to Vcc?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-29 23:32:44 UTC
From: Bob Liesenfeld <wb0poq@visi.com>
Message-ID: <40E1FC1C.5A7E119C@visi.com>
Source record: 25207

Hi gang,
Looking over an old AM/FM radio kit I built some years ago, I notice that instead of bypass caps going to ground (negative side of 9V), they all tie into the Vcc line, which has a single bypass cap to ground with an associated decoupling resistor. Any thoughts on this?

Bob WB0POQ

576. Re: Bypass caps to Vcc?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-30 00:35:41 UTC
From: W3JDR <joe@roccis.com>
Message-ID: <xVnEc.21310$Xn.14990@nwrdny03.gnilink.net>
Source record: 25208

The whole purpose of bypass caps is to return the RF currents to where they started from. Since it's typical to connect the negative supply to the chassis and use that as a 'common' point for V+ bypassing, many people think that bypasses should be connected to chassis 'ground'. In point of fact, you're really better off bypassing the V+ line (or V-, as the case might be) directly to the V- line (or V+, as the case might be). This is not a straightforward matter, and the choice of where's the best place to connect the bypass is often a complex issue involving the impedance of the return current path, as well as what other currents from lower level stages might be sharing that same current path. It's always good to prevent output stage currents from sharing the same return path as input stage currents. As was popularized in the movie Ghostbusters, it's not wise to "cross the streams".

Joe
W3JDR

"Bob Liesenfeld" <wb0poq@visi.com> wrote in message
news:40E1FC1C.5A7E119C@visi.com...
> Hi gang,
> Looking over an old AM/FM radio kit I built some years ago, I notice
> that instead of bypass caps going to ground (negative side of 9V), they
> all tie into the Vcc line, which has a single bypass cap to ground with
> an associated decoupling resistor. Any thoughts on this?
>
> Bob WB0POQ
>

577. Re: how to make a 50::100 balun?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-30 00:50:07 UTC
From: sdeyoreo@hotmail.com
Message-ID: <6d34e0hvuh7i29839stmrg7d5nh55svgh7@4ax.com>
Source record: 25209

Upon looking, I think the easiest thing to do is to buy a 50:100
balun. Something small with leads I can solder into a fixture. I found
one at TeleTech,model TT57E in a TO5 can.
On Tue, 29 Jun 2004 17:36:30 -0500, "Steve Nosko"
<suteuve.nosukowicuz@moutouroula.com> wrote:

>I assume you want to measure them on a 50 ohm test system. A bit mathy, but
>you could use a minimum loss T pad and include the pad's loss in the math...
>
>For a transformer, ther turns ratio would be square root two...

578. W7ZOI/K5IRK High Performance RX

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-30 01:20:36 UTC
From: Dale Parfitt <par@parelectronics.com>
Message-ID: <EzoEc.15033$DT5.636@nwrddc03.gnilink.net>
Source record: 25210

Has anyone built this RX from the 92-94 ARRL Handbook?
Comments?
Dale W4OP

579. Direct TV disk and LNA

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-30 03:52:52 UTC
From: pdrunen@aol.com
Message-ID: <20040629235252.04588.00000754@mb-m10.aol.com>
Source record: 25211

Hi Goup de KJ4UO.

I picked up on for the Direct TV disk with the LNA. The LNA states a frequeny range of 19 to 23 cm.

I understand the the LNA gets it power from a DC voltage that is transmitted down the line.

My questions:

For the DC voltage on the cable, how much is required and how much is the max?

What is the IF down converter frequency?

Can I use my FRG-9600 which has continuous coverage from 60 to 934 MHz as an variable IF to decode voice data?

In general is there a good site to return to and get technical facts on DT equipment.

Thanks,

Paul

580. Re: Direct TV disk and LNA

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-30 04:24:26 UTC
From: dplatt@radagast.org
Message-ID: <10e4g3qtidrub21@corp.supernews.com>
Source record: 25212

In article <20040629235252.04588.00000754@mb-m10.aol.com>,
PDRUNEN <pdrunen@aol.com> wrote:

>Hi Goup de KJ4UO.
>
>I picked up on for the Direct TV disk with the LNA. The LNA states a frequeny
>range of 19 to 23 cm.
>
>I understand the the LNA gets it power from a DC voltage that is transmitted
>down the line.
>
>My questions:
>
>For the DC voltage on the cable, how much is required and how much is the max?

The receiver typically puts either 13, or 18 volts onto the coax,
depending on whether it wishes to receive the lefthand or righthand
circular polarizations. There's often some voltage drop between the
receiver and the LNA/LNB.

>What is the IF down converter frequency?

There's no single downconverter frequency. The system uses a
low-noise block converter, which downconverts a whole range of
frequencies simultaneously. I believe you'll find the downconverted
signals located between 950 and 1450 MHz, if you aim the dish at a
DirecTV satellite. The block converter is designed so that its usual
outputs don't fall below 900 MHz - this allows a single coax to carry
both the downconverted satellite signals, and VHF/UHF television
signals via a diplexer.

>Can I use my FRG-9600 which has continuous coverage from 60 to 934 MHz as an
>variable IF to decode voice data?

I don't know whether the block converter will output frequencies that
low... they're below its normal output operating range.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

581. one tube xtal tx

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-30 09:08:21 UTC
From: mac <mac_dx@tnij.poczta.onet.pl>
Message-ID: <cbtvu7$22e$1@inews.gazeta.pl>
Source record: 25213

Hello

I am looking for schematics and any other help in making one tube CW QRP transmitter for 80m band, BATTERY operated. I think about 3s4t or 1t4t (DL96, df96).
What is minimal anode voltage (typical is 67,5v) which I can use with this lamp?

MAc

582. Re: Bypass caps to Vcc?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-30 10:56:05 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <g175e05vis97e4erd2n81np38fipvm09pg@4ax.com>
Source record: 25214

On Wed, 30 Jun 2004 00:35:41 GMT, "W3JDR" <joe@roccis.com> wrote:

>The whole purpose of bypass caps is to return the RF currents to where they
>started from. Since it's typical to connect the negative supply to the
>chassis and use that as a 'common' point for V+ bypassing, many people think
>that bypasses should be connected to chassis 'ground'. In point of fact,
>you're really better off bypassing the V+ line (or V-, as the case might
>be) directly to the V- line (or V+, as the case might be). This is not a
>straightforward matter, and the choice of where's the best place to connect
>the bypass is often a complex issue involving the impedance of the return
>current path, as well as what other currents from lower level stages might
>be sharing that same current path. It's always good to prevent output stage
>currents from sharing the same return path as input stage currents. As was
>popularized in the movie Ghostbusters, it's not wise to "cross the streams".

You're no fan of the 'star ground' then?
--

"What is now proved was once only imagin'd." - William Blake, 1793.

583. Re: Bypass caps to Vcc?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-30 11:29:41 UTC
From: W3JDR <joe@roccis.com>
Message-ID: <FuxEc.22473$Xn.12627@nwrdny03.gnilink.net>
Source record: 25215

For audio, maybe; for RF, no.

It's often not feasible at RF, especially at VHF & UHF. The lead lengths required to take all bypasses to a single point can introduce significant impedance which prevents the bypass from doing its job. In general, it's a good idea to keep 'circulating' RF currents local to the stage where they are generated so they don't co-mingle with other stages' currents.

Joe
W3JDR

"Paul Burridge" <pb@notthisbit.osiris1.co.uk> wrote in message news:g175e05vis97e4erd2n81np38fipvm09pg@4ax.com...
> On Wed, 30 Jun 2004 00:35:41 GMT, "W3JDR" <joe@roccis.com> wrote:
>
> >The whole purpose of bypass caps is to return the RF currents to where they
> >started from. Since it's typical to connect the negative supply to the
> >chassis and use that as a 'common' point for V+ bypassing, many people think
> >that bypasses should be connected to chassis 'ground'. In point of fact,
> >you're really better off bypassing the V+ line (or V-, as the case might
> >be) directly to the V- line (or V+, as the case might be). This is not a
> >straightforward matter, and the choice of where's the best place to connect
> >the bypass is often a complex issue involving the impedance of the return
> >current path, as well as what other currents from lower level stages might
> >be sharing that same current path. It's always good to prevent output stage
> >currents from sharing the same return path as input stage currents. As was
> >popularized in the movie Ghostbusters, it's not wise to "cross the streams".
>
> You're no fan of the 'star ground' then?
> --
>
> "What is now proved was once only imagin'd." - William Blake, 1793.

584. Re: one tube xtal tx

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-30 13:31:04 UTC
From: Doug Smith W9WI <w9wi@invalid.invalid>
Message-ID: <40E2C098.4050309@invalid.invalid>
Source record: 25216

mac wrote:
> I am looking for schematics and any other help in making one tube CW QRP
> transmitter for 80m band, BATTERY operated. I think about 3s4t or 1t4t
> (DL96, df96).
> What is minimal anode voltage (typical is 67,5v) which I can use with
> this lamp?

You'll probably get better answers, but...

I once had an old MW radio that used tubes of this kind. It worked fine
with only 18V on the anodes. (two 9V batteries in series)

--
Doug Smith W9WI
Pleasant View (Nashville), TN EM66
http://www.w9wi.com

585. Re: one tube xtal tx

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-30 15:53:08 UTC
From: Richard Heindel <rheindel@neo.rr.com>
Message-ID: <ElBEc.175927$DG4.14324@fe2.columbus.rr.com>
Source record: 25217

Here's a web site that might help, http://antiqueradio.org/lil7.htm

73
Richard WB8KRN

"mac" <mac_dx@tnij.poczta.onet.pl> wrote in message news:cbtvu7$22e$1@inews.gazeta.pl...
> Hello
>
> I am looking for schematics and any other help in making one tube CW QRP
> transmitter for 80m band, BATTERY operated. I think about 3s4t or 1t4t
> (DL96, df96).
> What is minimal anode voltage (typical is 67,5v) which I can use with
> this lamp?
>
> MAc

586. Re: how to make a 50::100 balun?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-30 16:42:00 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <cbuql0qmu1@newshost.mot.com>
Source record: 25222

<sdeyoreo@hotmail.com> wrote in message
news:6d34e0hvuh7i29839stmrg7d5nh55svgh7@4ax.com...
> Upon looking, I think the easiest thing to do is to buy a 50:100
> balun. Something small with leads I can solder into a fixture. I found
> one at TeleTech,model TT57E in a TO5 can.
>

Don't forget that it will factor into your measured data. Can't figure out
what "LT -18 dB" is...Loss Tangent doesn't make sense...

If what you want to measure is a return loss of -18 dB, then the transformer
you buy better be better than that and you'll have to measure it into the
100 ohm load and do the math if is near -18.
--
Steve N, K,9;d, c. i My email has no u's..

587. Re: one tube xtal tx

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-30 16:48:19 UTC
From: mac <mac_dx@tnij.poczta.onet.pl>
Message-ID: <cbuqse$hg8$1@inews.gazeta.pl>
Source record: 25218

Many thanks to Doug and Richard.
Of course I will take with pleasure any other help or informations.
After my success with cubic incher, pixie and aquarius i want to try (or rather return) to tubes. My first transmitter was ECL82 ;-)

MAc
sp9mrn

588. Re: Bypass caps to Vcc?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-30 16:49:27 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <cbur2vqoc1@newshost.mot.com>
Source record: 25221

Good summary, Joe. Return the current to the proper place is THE correct answer. Ghost Busters analogy is interesting...

...and don't forget circuit board layout issues. With a one (or two) sided board it may be expediant to use one or the other.

The IF (with a high gain) is usually the most susceptible to oscillation.

I would expect that the AM/FM is one of the "less" critical applications, acknowledging, however, that it is easy to get into trouble anywhere.
--
Steve N, K,9;d, c. i My email has no u's.

"W3JDR" <joe@roccis.com> wrote in message
news:xVnEc.21310$Xn.14990@nwrdny03.gnilink.net...
> The whole purpose of bypass caps is to return the RF currents to where
they
> started from. Since it's typical to connect the negative supply to the
> chassis and use that as a 'common' point for V+ bypassing, many people
think
> that bypasses should be connected to chassis 'ground'. In point of fact,
> you're really better off bypassing the V+ line (or V-, as the case might
> be) directly to the V- line (or V+, as the case might be). This is not a
> straightforward matter, and the choice of where's the best place to
connect
> the bypass is often a complex issue involving the impedance of the return
> current path, as well as what other currents from lower level stages might
> be sharing that same current path. It's always good to prevent output
stage
> currents from sharing the same return path as input stage currents. As was
> popularized in the movie Ghostbusters, it's not wise to "cross the
streams".
>
> Joe
> W3JDR
>
>
> "Bob Liesenfeld" <wb0poq@visi.com> wrote in message
> news:40E1FC1C.5A7E119C@visi.com...
> > Hi gang,
> > Looking over an old AM/FM radio kit I built some years ago, I notice
> > that instead of bypass caps going to ground (negative side of 9V), they
> > all tie into the Vcc line, which has a single bypass cap to ground with
> > an associated decoupling resistor. Any thoughts on this?
> >

> > Bob WB0POQ
> >
>
>

589. Re: one tube xtal tx

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-30 16:53:46 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10e5s0bd266kb43@corp.supernews.com>
Source record: 25219

mac wrote:

> Hello
>
> I am looking for schematics and any other help in making one tube CW QRP
> transmitter for 80m band, BATTERY operated. I think about 3s4t or 1t4t
> (DL96, df96).
> What is minimal anode voltage (typical is 67,5v) which I can use with
> this lamp?
>
> MAc

Doing an altavista search on "glowbug" will turn up at least one battery powered transmitter project, and lots of fun tube stuff.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

590. Re: one tube xtal tx

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-30 17:14:25 UTC
From: mac <mac_dx@tnij.poczta.onet.pl>
Message-ID: <cbusdc$ob6$1@inews.gazeta.pl>
Source record: 25220

It was the KEYword that I was looking for ;-)
Thank You

MAc

591. Re: High Voltage Components from microwave ovens

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-30 20:25:37 UTC
From: Wim Ton <wimton@blueyonder.co.uk>
Message-ID: <6lFEc.54$Ev6.46@fe1.news.blueyonder.co.uk>
Source record: 25223
Cross-posted to: sci.electronics.repair,rec.radio.amateur.homebrew

"Albert" <pass@pass.com> wrote in message
news:gbqqd05kgee2uo2pnj7k2hhhfa4hlrabrm@4ax.com...
> Yes, please publish the link Wm, and thanks.
>
> Use a mgnetron as an amplifier

http://www.dafh.org/gbppr/mil/herf/magnetron_amplifier.pdf

592. Re: CricuitMaker Student Software Flawed?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-30 21:26:58 UTC
From: Ed Bailen <n5kzw@arrl.net>
Message-ID: <5ub6e0tbsi3a2u7g4s2m3105ddmkd722bb@4ax.com>
Source record: 25224

On Thu, 17 Jun 2004 04:13:42 +0100, "John" <jmort@despammed.com>
wrote:

>
>> >"Ed Bailen" <n5kzw@arrl.net> wrote in message
>> >news:p487c0l71bn4rucspkhhfsvrci16ru4r8n@4ax.com...
>> >> The last issue of QST had a short article on the CircuitMaker Student
>> >> edition circuit design package. I downloaded it and spent several
>> >> hours trying various oscillator designs (including the phase shift
>> >> oscillator discussed in the same issue of QST). I couldn't get any of
>> >> the designs to oscillate! I was mainly trying Colpitts oscillators.
>> >>
>> >> Has anyone else tried designing oscillatos with this application?
>> >>
>> >> Thanks,
>> >> Ed Bailen
>
>
>I have a Colpitts oscillator running ok in Circuit Maker Student V6.2c.
>I can send you the file if you'd like. (small, about 13 kb)
>
John, I'd like to take a look at your circuit if you wouldn't mind
emailing it to me. Thanks.

Thanks to the rest of you for advancing my education.

Ed Bailen - N5KZW

593. Re: Direct TV disk and LNA

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-30 22:19:15 UTC
From: sdeyoreo@hotmail.com
Message-ID: <4re6e0tov1bct45qtkl7bb2bgcvkd899rc@4ax.com>
Source record: 25225

Dave is correct about the IF freq, but: the local osc in the LNB
covers two ranges: 13 to 18 VDC it will osc in the low band, 22-28 it
will osc in the high band. The LNBs I've seen use an signal about
20khz sent from the satellite reciever to switch polarizations.
Adjacent channels are oppisitely polarized, circularly.
On 30 Jun 2004 03:52:52 GMT, pdrunen@aol.com (PDRUNEN) wrote:

>Hi Goup de KJ4UO.
>
>I picked up on for the Direct TV disk with the LNA. The LNA states a frequeny
>range of 19 to 23 cm.
>
>I understand the the LNA gets it power from a DC voltage that is transmitted
>down the line.
>
>My questions:
>
>For the DC voltage on the cable, how much is required and how much is the max?
>
>What is the IF down converter frequency?
>
>Can I use my FRG-9600 which has continuous coverage from 60 to 934 MHz as an
>variable IF to decode voice data?
>
>In general is there a good site to return to and get technical facts on DT
>equipment.
>
>Thanks,
>
>Paul

594. Re: how to make a 50::100 balun?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-30 22:20:54 UTC
From: sdeyoreo@hotmail.com
Message-ID: <s3f6e0pdspt04h107phmohvrdr4cmv3p8r@4ax.com>
Source record: 25226

I knowand itstough finding onwith return lossless than -18 db. BTW: LT
-18 db,.I meant return loss is lessthan -18 db(or below -18db).
On Wed, 30 Jun 2004 11:42:00 -0500, "Steve Nosko"
<suteuve.nosukowicuz@moutouroula.com> wrote:

>
><sdeyoreo@hotmail.com> wrote in message
>news:6d34e0hvuh7i29839stmrg7d5nh55svgh7@4ax.com...
>> Upon looking, I think the easiest thing to do is to buy a 50:100
>> balun. Something small with leads I can solder into a fixture. I found
>> one at TeleTech,model TT57E in a TO5 can.
>>
>
>Don't forget that it will factor into your measured data. Can't figure out
>what "LT -18 dB" is...Loss Tangent doesn't make sense...
>
>If what you want to measure is a return loss of -18 dB, then the transformer
>you buy better be better than that and you'll have to measure it into the
>100 ohm load and do the math if is near -18.

595. Re: Free: RF magazines

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-06-30 23:56:15 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <zqIEc.39014$_5.28098@clgrps13>
Source record: 25227

I'm out :-(

The train people say "too small to be bothered".

--
Gregg
It's probably useful, even if it can't be SPICE'd
http://geek.scorpiorising.ca

596. Re: one tube xtal tx

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-01 10:35:17 UTC
From: Uncle Peter <radioconnectionNO@cox.netSPAM>
Message-ID: <oMREc.38938$cj3.32372@lakeread01>
Source record: 25228

19 tube should be fun, I'd go with around 67 or greater for the plate.

Pete

"mac" <mac_dx@tnij.poczta.onet.pl> wrote in message
news:cbtvu7$22e$1@inews.gazeta.pl...
> Hello
>
> I am looking for schematics and any other help in making one tube CW QRP
> transmitter for 80m band, BATTERY operated. I think about 3s4t or 1t4t
> (DL96, df96).
> What is minimal anode voltage (typical is 67,5v) which I can use with
> this lamp?
>
> MAc

597. Re: OCXO module Spec's and Pinouts?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-01 11:08:30 UTC
From: ddwyer <dd@ddwyer.demon.co.uk>
Message-ID: <RSRUMXAuC$4AFwJ7@ddwyer.demon.co.uk>
Source record: 25229

>OTOH, I have sometimes had better luck just calling vendors rather
>than emailing. I think they find a phone call harder to ignore than an
>email.
>
>-
>---
> Jim Adney jadney@vwtype3.org
> Madison, WI 53711 USA
>---
Corning has absorbed a lot of oscillator/crystal companies including
Telequarz who had the best technical publications and software.
No longer all available.
--
ddwyer

598. Help coax

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-01 13:02:41 UTC
From: kraja@gmx.net
Message-ID: <de7cdf52.0407010502.7ec7ecad@posting.google.com>
Source record: 25230

Can someone help me with a caox cable?
There is sign on it "FILOTEX ETUDE 390572-1AC011430002"
and I don't know impedance and attenuation.

Tks in advance

Merso T94NO

599. Re: how to make a 50::100 balun?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-01 14:45:13 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <cc1862$ae3$1@newshost.mot.com>
Source record: 25232

Ahhhh! Gotit! LT = Less Than... I'da used "<"

73
--
Steve N, K,9;d, c. i My email has no u's.

<sdeyoreo@hotmail.com> wrote in message
news:s3f6e0pdspt04h107phmohvrdr4cmv3p8r@4ax.com...
> I knowand itstough finding onwith return lossless than -18 db. BTW: LT
> -18 db,.I meant return loss is lessthan -18 db(or below -18db).
> On Wed, 30 Jun 2004 11:42:00 -0500, "Steve Nosko"
> <suteuve.nosukowicuz@moutouroula.com> wrote:
>
> >
> ><sdeyoreo@hotmail.com> wrote in message
> >news:6d34e0hvuh7i29839stmrg7d5nh55svgh7@4ax.com...
> >> Upon looking, I think the easiest thing to do is to buy a 50:100
> >> balun. Something small with leads I can solder into a fixture. I found
> >> one at TeleTech,model TT57E in a TO5 can.
> >>
> >
> >Don't forget that it will factor into your measured data. Can't figure
out
> >what "LT -18 dB" is...Loss Tangent doesn't make sense...
> >
> >If what you want to measure is a return loss of -18 dB, then the
transformer
> >you buy better be better than that and you'll have to measure it into the
> >100 ohm load and do the math if is near -18.
>

600. Re: Help coax

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-01 15:05:50 UTC
From: j999w@aol.com
Message-ID: <20040701110550.26548.00000874@mb-m03.aol.com>
Source record: 25231

What are the dimensions? At least approximately?

jw
K9RZZ

601. Alexanderson generatoor transmits on 17.2kHz next week-end

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-01 19:45:08 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <daq8e01clferh6vc0m13gprida6ssssu4d@4ax.com>
Source record: 25233

THE ALEXANDERSON TRANSMISSION IN 2004

Also this year there will be a transmission with the Alexanderson alternator on VLF 17,2 kHz, now on Sunday 4th July at:

08:30 UTC
10:30 UTC
12:30 UTC

The UNESCO Committee will have a meeting in Beijing, China in the last week of June, and will then decide whether Grimeton Radio will be included in The World Heritage List, or not. So the message sent on Sunday July 4th will include information about the result. We keep our fingers crossed!

The Radio Station will be open to visitors 10:00-16:00 Swedish time.

The number of visitors has increased noticeably during the last years, from 300 to 500 and last year to almost 800. The weather has been extremely good, so far.

We have had some problems with the keying of the transmitter last years and hope it will be better now. "Dots" has been missing quite often (not the operators fault!!).

The amateurs will operate a transmitter with the call "SA6Q" on 20 meter band during the day:

14.035 MHz CW

14.215 MHz SSB

QSL for both "SAQ" and "SA6Q" via:

E-mail: info@alexander.n.se

Fax: +46-340-674195

Mail: Alexander - Grimeton Veteranradios Vaenner, Radiostationen,
Grimeton 72,
SE-430 16 ROLFSTORP, SWEDEN

or via SM-bureau.

For further info see our web site: www.alexander.n.se

Regards

SM6NM/Lars
---
it was rather strong here two years ago (0.5mV on my active antenna),
and was reported from several places around the world - not only in
Europe

J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

602. "Carl & Jerry" series from Popular Electronics

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-01 21:09:35 UTC
From: Allen Windhorn <Allen.Windhorn@LSUSA.com>
Message-ID: <ur7rv5t83.fsf@LSUSA.com>
Source record: 25234

Has this series of articles ever been reprinted? If so, under what
title and form?

Thanks,
Allen
--
Allen Windhorn (507) 345-2782 FAX (507) 345-2805
Kato Engineering (Though I do not speak for Kato)
P.O. Box 8447, N. Mankato, MN 56002
Allen.Windhorn@LSUSA.com

603. Re: Alexanderson generatoor transmits on 17.2kHz next week-end

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-01 21:32:54 UTC
From: john graesser <graesser@tca.net>
Message-ID: <10e90gq4rdfsb5d@corp.supernews.com>
Source record: 25235

"J M Noeding" <la8ak@online.no> wrote in message
news:daq8e01clferh6vc0m13gprida6ssssu4d@4ax.com...
> THE ALEXANDERSON TRANSMISSION IN 2004
>
> Also this year there will be a transmission with the Alexanderson
> alternator on VLF 17,2 kHz, now on Sunday 4th July at:

17,2KHZ? Isn't that at the upper end of human hearing? Well within a dogs
hearing range?
thanks, John.
KC5DWD

604. Re: "Carl & Jerry" series from Popular Electronics

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-01 22:06:44 UTC
From: jgboyles@aol.com
Message-ID: <20040701180644.05811.00000974@mb-m05.aol.com>
Source record: 25236

>Has this series of articles ever been reprinted? If so, under what
>title and form?

Do a Google search on "popular electronics carl jerry" and you will find what is available on the internet. I read the orginal episode, which told how the two became a team, never read that one before.
73 Gary N4AST

605. Re: Alexanderson generatoor transmits on 17.2kHz next week-end

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-01 22:14:30 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <9v29e0t0l7smbjutp2gqm4fqkba330dgm8@4ax.com>
Source record: 25237

On Thu, 1 Jul 2004 16:32:54 -0500, "john graesser" <graesser@tca.net>
wrote:

>
>"J M Noeding" <la8ak@online.no> wrote in message
>news:daq8e01clferh6vc0m13gprida6ssssu4d@4ax.com...
>> THE ALEXANDERSON TRANSMISSION IN 2004
>>
>> Also this year there will be a transmission with the Alexanderson
>> alternator on VLF 17,2 kHz, now on Sunday 4th July at:
>
>17,2KHZ? Isn't that at the upper end of human hearing? Well within a dogs
>hearing range?
>thanks, John.
>KC5DWD
>
suppose you think that somebody really shouldn't need a telephone
because they talk so loud, and particularly not radio?

But this transmitter uses normal cw, and the tone is pure T9

J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

606. Re: Alexanderson generatoor transmits on 17.2kHz next week-end

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-01 22:21:01 UTC
From: Sverre Holm <la3za.0junk4me@qsl.net>
Message-ID: <cc22r1$k2m$1@maud.ifi.uio.no>
Source record: 25238

> 17,2KHZ? Isn't that at the upper end of human hearing? Well within a dogs
> hearing range?

Yes, except for the small, but very significant difference between
electromagnetic and acoustic waves!

--
S Holm, LA3ZA
---
www.qsl.net/la3za

607. Re: Alexanderson generatoor transmits on 17.2kHz next week-end

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-01 22:26:52 UTC
From: jgboyles@aol.com
Message-ID: <20040701182652.05811.00000975@mb-m05.aol.com>
Source record: 25239

>17,2KHZ? Isn't that at the upper end of human hearing? Well within a dogs
>hearing range?
>thanks, John.
>KC5DWD

Hi John, 17.2khz audio is not audible to me because I am to old. 17.2khz RF or electromagnetic radiation is usually not audible to anyone, even dogs. I am sure if you were too close to a very strong 17.2khz EM field you could feel something or hear the effect the radiation had on close in objects, but I don't think you could hear the EM. Sound waves and EM waves are two different things.
73 Gary N4AST

608. Re: "Carl & Jerry" series from Popular Electronics

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-02 00:46:38 UTC
From: Doug Faunt N6TQS +1-510-655-8604 <faunt@panix.com>
Message-ID: <mfrzn6jkzgx.fsf@panix1.panix.com>
Source record: 25240

jgboyles@aol.com (JGBOYLES) writes:

> >Has this series of articles ever been reprinted? If so, under what
> >title and form?
>
> Do a Google search on "popular electronics carl jerry" and you will find what
> is available on the internet. I read the orginal episode, which told how the
> two became a team, never read that one before.
> 73 Gary N4AST

And I'm starting to work on this again, so more should become
available soon.

73, doug

609. Supplier of project boxes and/or cases

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-02 09:05:10 UTC
From: GBH <geoff.hamilton1@NOSPAMTHANX.ntlworld.com>
Message-ID: <az9Fc.271$m96.68@newsfe1-win>
Source record: 25241

Looking to house an RX2 Weather Satellite receiver in a suitable case.
Maplins dont have anything appropriate .. any suggestions please for UK
suppliers?

TIA

Geoff

610. Re: Supplier of project boxes and/or cases

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-02 10:02:04 UTC
From: Leon Heller <leon_heller@hotmail.com>
Message-ID: <40e5329d$0$28258$cc9e4d1f@news-text.dial.pipex.com>
Source record: 25243

"GBH" <geoff.hamilton1@NOSPAMTHANX.ntlworld.com> wrote in message
news:az9Fc.271$m96.68@newsfe1-win...
> Looking to house an RX2 Weather Satellite receiver in a suitable case.
> Maplins dont have anything appropriate .. any suggestions please for UK
> suppliers?

Farnell, RS, Rapid Electronics.

73, Leon

611. Re: Help coax

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-02 10:05:46 UTC
From: kraja@gmx.net
Message-ID: <de7cdf52.0407020205.1f21ad7d@posting.google.com>
Source record: 25242

Thanks OM for replay.
Dimensions are same like RG 213 except
that there is a folia with braid and it is not copper braid,
it looks like Al braid (silver colour). I can buy it
very cheaply but I don't know if it suit to ours need.

73 OM and thanks again

Merso/T94NO

j999w@aol.com (J999w) wrote in message
news:<20040701110550.26548.00000874@mb-m03.aol.com>...
> What are the dimensions? At least approximately?
>
> jw
> K9RZZ

612. BPL, the ARRL and the UPLC

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-02 11:26:02 UTC
From: John Walton <jdwalton@comcast.net>
Message-ID: <w9ednZYjgfnE2HjdRVn-jw@comcast.com>
Source record: 25245

ARRL's newsletter is a day early...they comment on Alliant Energy's withdrawal of their pilot project (seems that as expected the noise couldn't be notched out.)

at any rate, here's a link to the UPLC press release from June 22:
http://www.uplc.utc.org/?cbr_v=dcb&nt=true&cbr_eid=25276&p=admin&ct=contentbrowser

please note the swipe at the amateur radio community in paragraph 3

-- perhaps mary.patterson@utc.org , author of the press release, would like to hear from all of you who read QST, QEX and or AMQRP.

here's the relevant part of the missive from the ARRL:

==>UTILITY CUTS SHORT BPL TRIAL THAT WAS TARGET OF AMATEUR COMPLAINTS

Alliant Energy has called an early end to its broadband over power line (BPL) pilot project in Cedar Rapids, Iowa. The "evaluation system" went live March 30, and plans called for keeping it active until August or September. Alliant shut it down June 25. Ongoing, unresolved HF interference from the system to retired engineer Jim Spencer, W0SR, and other amateurs prompted the ARRL to file a complaint to the FCC on Spencer's behalf demanding it be shut down and the utility fined.

Alliant Energy's BPL Project Leader Dan Hinz says the ARRL complaint "certainly was a factor" in the utility's decision to pull the plug prematurely but "not the overriding factor." The main reason, he said, was that Alliant accomplished most of its objectives ahead of schedule. The primary purpose of the Cedar Rapids evaluation was to gain an understanding of BPL technology and what issues might be involved in a real-world deployment, Hinz explained. But, he added, regulatory uncertainty and other unspecified technical issues also factored into the choice to end the pilot early.

Hinz said Alliant is "moshing the data" to compile a written evaluation of the Cedar Rapids pilot, but the company has no plans at this point to move forward with BPL. Alliant did not partner with a broadband services provider, and it has no other BPL test systems in operation. The system used Amperion BPL equipment.

According to Spencer, five fixed Amateur Radio stations within proximity of the BPL evaluation system and two mobile stations formally reported BPL interference on HF. "The radio amateurs and Alliant Energy cooperated by sharing interference information," he said. "Alliant Energy turned the BPL evaluation system off twice to allow collection of extensive BPL frequency and signal level data--with and without BPL." He said Alliant and Amperion tried various "notching" schemes to rid amateur frequencies of the BPL

interference with only limited success.

The system included both overhead and underground BPL links to feed 2.4 GHz wireless "hot spots" for end user access. Hinz said the area's topography presented some challenges, especially with the wireless links. "I think in the end, we actually over-challenged ourselves with this specific pilot location," he said. And, despite "substantial progress" in mitigating interference, Alliant decided at this point that "it wasn't worth the extra effort" to resolve the thornier technical issues, Hinz added.

As for any broader implications, Hinz says he's always viewed BPL as a "strategic deployment technology," not one a company could roll out just anywhere and expect to be competitive with existing broadband services such as cable and DSL. "At least that's how we were looking at it," he said. "You have to find the right areas with the right topography with the right concentration of certain types of customers," he said.

"It's never been in my mind that BPL has to compete with the speeds of cable today," Hinz added. "It has to compete with the speeds of cable and the next best thing tomorrow as well, if it's going to be usable well into the future." He hinted that Alliant might want to take another look at BPL once the FCC has put BPL rules and regulations into place, and the technology has further evolved.

The ARRL's formal complaint to FCC Enforcement Bureau Chief David H. Solomon called on the Commission not only to close down Alliant's BPL field trial system but to fine the utility $10,000 for violating the Communications Act of 1934 and FCC Part 15 rules. Commenting on the termination of the Cedar Rapids BPL trial, ARRL CEO David Sumner, K1ZZ, pointed out that Alliant had tried for more than 12 weeks to fix the interference problem to a station 600 feet from its installation.

"In the end," Sumner said, "the interference was not eliminated except by shutting down the BPL system. Could the case against BPL deployment be any clearer?"

Spencer said he was happy with Alliant's decision, and he was gracious in expressing appreciation to the utility for working with him. "And thanks also to the ARRL and the Cedar Rapids BPL Steering Committee for their knowledge and efforts in making a truly professional evaluation," he added.

Still outstanding are some chronic power line noise problems Spencer has experienced.

For additional information, visit the "Broadband Over Power Line (BPL) and Amateur Radio" page on the ARRL Web site <http://www.arrl.org/bpl>. To support the League's efforts in this area, visit the ARRL's secure BPL Web site <https://www.arrl.org/forms/development/donations/bpl/>.

==>UPLC COMMENT SHOWS BPL CAMPAIGN STARTING TO PAY OFF, HAYNIE SAYS

ARRL President Jim Haynie, W5JBP, says a remark the United Power Line Council (UPLC) made recently about Amateur Radio shows that the League's BPL message is getting through. In its reply comments on the FCC's BPL Notice of Proposed Rule Making in ET Docket 04-37, the UPLC's Brett Kilbourne claimed that members of the BPL industry are the real experts on the technology, "not a misinformed set of armchair amateurs that still use vacuum tube transmitters." A subsequent UPLC press release repeated the swipe, drawing a storm of protest from the amateur community. Haynie said this week that he took comfort rather than offense at the intended affront.

"I thought that the comment was a good indicator that the work that the League has been doing on multiple fronts is beginning to pay off," Haynie said. The League's FCC filings, technical studies and information on BPL, he said, have made it "very embarrassing" for the BPL industry to keep insisting "that the emperor is wearing clothes," so it's resorted to name calling instead.

Haynie said he remains puzzled that the BPL industry appears unwilling to support its claims that "the risk of interference from BPL is extraordinarily low, because it produces only minimal radio frequency energy at a few points in the system," as the UPLC's press release asserts. Any harmful interference that does occur, the UPLC claims, can be "mitigated" using a variety of techniques, "including frequency notching or frequency shifting."

"Just saying 'We said it's not going to interfere' is not going to cut it," he said. Haynie challenged the BPL industry to sponsor independent, professional engineering evaluations of the technology's interference risk. "Let's see what they've got."

Haynie said that while he found the UPLC's "armchair amateurs" remark amusing, its severe criticism of the National Telecommunications and Information Administration (NTIA) Phase 1 BPL report and comments in the proceeding raised his eyebrows a bit. In its press release, the UPLC said "NTIA's recommendations and ARRL's naysaying are misguided" and that the UPLC has "forcefully replied" to interference concerns.

"For Mr Kilbourne to come out and say they [NTIA] don't know what they're talking about, he might as well shoot himself in the foot," Haynie said, pointing out that the White House, which is promoting BPL, is putting a lot weight on the NTIA's recommendations.

In its comments, the UPLC said the NTIA's approach was "fundamentally at odds with the Part 15 rules" and "unjustified" by BPL's interference potential.

In response to the criticism leveled from the amateur community, the UPLC declared its "support for Amateur Radio remains unabated," but expressed concern for "uninformed armchair quarterbacking by a small number of amateurs." The UPLC also said it has "sought to work with ARRL," citing its offer to help resolve "a complaint in Cedar Rapids, Iowa." Alliant Energy prematurely shut down its BPL pilot system in Cedar Rapids June 25.

Interference complaints from amateurs were a factor in the utility's decision.

613. Re: Supplier of project boxes and/or cases

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-02 11:40:40 UTC
From: Highland Ham <abgm0csz.kn6whyz@ntlworld.com>
Message-ID: <YQbFc.26$xu1.10@newsfe6-gui.ntli.net>
Source record: 25244

> Looking to house an RX2 Weather Satellite receiver in a suitable case.
> Maplins dont have anything appropriate .. any suggestions please for UK
> suppliers?
==========
Don't know how large this rx is ,but generally 'lunch box variety ' type of (usually transparent) plastic enclosures with a good seal ,available in most DIY stores ,are weather proof. Suggest you have a look at B&Q , Home Base , Focus , Wickes ,etc.
However in order for these enclosures not to suffer from the sun's UV radiation causing the plastic to become brittle ,it is important to paint the outside ,incl the lid , Black (Hammerite Spray will do fine) ,not leaving any exposed area of plastic unpainted.
Recently I replaced such a box ,which had been accommodating an outdoor LF antenna amplifier ,after more than 9 years of good service .

Frank GM0CSZ / KN6WH

614. Re: "Carl & Jerry" series from Popular Electronics

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-02 12:21:47 UTC
From: jgboyles@aol.com
Message-ID: <20040702082147.05811.00001018@mb-m05.aol.com>
Source record: 25246

>And I'm starting to work on this again, so more should become
>available soon.

That's great, I will be looking forward to seeing more. I don't know which I looked forward to more as a kid, Carl and Jerry or Superman.
73 Gary N4AST

615. Re: "Carl & Jerry" series from Popular Electronics

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-02 12:51:59 UTC
From: Dale Parfitt <par@parelectronics.com>
Message-ID: <PTcFc.27975$x9.18387@nwrddc01.gnilink.net>
Source record: 25097

"JGBOYLES" <jgboyles@aol.com> wrote in message
news:20040702082147.05811.00001018@mb-m05.aol.com...
> >And I'm starting to work on this again, so more should become
> >available soon.
>
> That's great, I will be looking forward to seeing more. I don't know
which I
> looked forward to more as a kid, Carl and Jerry or Superman.
> 73 Gary N4AST
I'm with you Gary- still watching Superman on TVLand, and now getting to
read Carl & Jerry again- great stuff.

Dale W4OP

616. Re: "Carl & Jerry" series from Popular Electronics

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-02 15:01:14 UTC
From: Leon Heller <leon_heller@hotmail.com>
Message-ID: <40e578bb$0$6444$cc9e4d1f@news-text.dial.pipex.com>
Source record: 25098

"Allen Windhorn" <Allen.Windhorn@LSUSA.com> wrote in message
news:ur7rv5t83.fsf@LSUSA.com...
> Has this series of articles ever been reprinted? If so, under what
> title and form?

Radio Constructor, a UK publication that folded some years ago, used to have
a column entitled "In Your Workshop", IIRC, featuring the adventures of
Smithy, a TV/radio repairman and his assistant, Dick Their exploits weren't
as exciting as Carl and Jerry's, but quite amusing.

73, Leon
--
Leon Heller, G1HSM
http://www.geocities.com/leon_heller

617. Re: "Carl & Jerry" series from Popular Electronics

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-02 16:20:08 UTC
From: yazoo city <nospam@nospam.org>
Message-ID: <4o2be0heina01itqr0h3cdimvj5j86ouue@4ax.com>
Source record: 25099

On Thu, 01 Jul 2004 21:09:35 GMT, Allen Windhorn
<Allen.Windhorn@LSUSA.com> wrote:

>Has this series of articles ever been reprinted? If so, under what
>title and form?
>
>Thanks,
>Allen

look in alt.binaries.pictures.radios

618. Re: Supplier of project boxes and/or cases

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-02 18:29:06 UTC
From: GBH <geoff.hamilton1@NOSPAMTHANX.ntlworld.com>
Message-ID: <SPhFc.73$7x1.35@newsfe3-gui.ntli.net>
Source record: 25100

Appreciate the comments! Thanks.

Geoff

"Highland Ham" <abgm0csz.kn6whyz@ntlworld.com> wrote in message
news:YQbFc.26$xu1.10@newsfe6-gui.ntli.net...
> > Looking to house an RX2 Weather Satellite receiver in a suitable case.
> > Maplins dont have anything appropriate .. any suggestions please for UK
> > suppliers?
> ============================
> Don't know how large this rx is ,but generally 'lunch box variety ' type
of
> (usually transparent) plastic enclosures with a good seal ,available in
most
> DIY stores ,are weather proof. Suggest you have a look at B&Q , Home Base
,
> Focus , Wickes ,etc.
> However in order for these enclosures not to suffer from the sun's UV
> radiation causing the plastic to become brittle ,it is important to paint
> the outside ,incl the lid , Black (Hammerite Spray will do fine) ,not
> leaving any exposed area of plastic unpainted.
> Recently I replaced such a box ,which had been accommodating an outdoor LF
> antenna amplifier ,after more than 9 years of good service .
>
> Frank GM0CSZ / KN6WH
>
>
>

619. Re: "Carl & Jerry" series from Popular Electronics

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-02 19:41:41 UTC
From: wa0goz@arrl.net
Message-ID: <40E5BA75.5236@arrl.net>
Source record: 25102

yazoo city wrote:
>
> On Thu, 01 Jul 2004 21:09:35 GMT, Allen Windhorn
> <Allen.Windhorn@LSUSA.com> wrote:
>
> >Has this series of articles ever been reprinted? If so, under what
> >title and form?
> >
> >Thanks,
> >Allen
>
> look in alt.binaries.pictures.radios

When I try news:alt.binaries.pictures.radios I get a message that
says no such newsgroup.

Suggestion?

Henry

620. Re: Supplier of project boxes and/or cases

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-02 19:55:56 UTC
From: GBH <geoff.hamilton1@NOSPAMTHANX.ntlworld.com>
Message-ID: <g5jFc.61$8B4.59@newsfe6-win.ntli.net>
Source record: 25101

Just goes to show ... I had searched RS and others before based on 'project box'. Searching again under 'enclosure' did the trick. RS have more styles and sizes than you could shake a stick at ... so problem solved. Thanks for the responses.

Geoff

"GBH" <geoff.hamilton1@NOSPAMTHANX.ntlworld.com> wrote in message news:az9Fc.271$m96.68@newsfe1-win...
> Looking to house an RX2 Weather Satellite receiver in a suitable case.
> Maplins dont have anything appropriate .. any suggestions please for UK
> suppliers?
>
> TIA
>
> Geoff
>
>

621. Re: "Carl & Jerry" series from Popular Electronics

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-02 20:23:34 UTC
From: mikea@mikea.ath.cx
Message-ID: <cc4g86$p8g$8@puck.litech.org>
Source record: 25103

wa0goz@arrl.net wrote:

> When I try news:alt.binaries.pictures.radios I get a message that
> says no such newsgroup.

> Suggestion?

It appears that your provider doesn't carry that group. A lot of
providers don't carry binaries groups because they tend to be _big_,
have high traffic levels, and get used to move porn of various sorts.

You _could_ write a letter or send E-mail to the appropriate folks at
your provider, asking them to carry the group -- and that might work.

You could pay to subscribe to, say, supernews, or to another news
provider that carries the groups you want.

--
Mike Andrews
mikea@mikea.ath.cx
Tired old sysadmin

622. Re: "Carl & Jerry" series from Popular Electronics

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-02 22:09:59 UTC
From: Allen Windhorn <Allen.Windhorn@LSUSA.com>
Message-ID: <usmcaoya7.fsf@LSUSA.com>
Source record: 25104

jgboyles@aol.com (JGBOYLES) writes:

> >Has this series of articles ever been reprinted? If so, under what
> >title and form?
>
> Do a Google search on "popular electronics carl jerry" and you will find what
> is available on the internet. I read the orginal episode, which told how the
> two became a team, never read that one before.
> 73 Gary N4AST

Thanks! Should have tried that, I guess.

73, Allen

623. FS: Surplus Service Manuals & EF Johnson Parts

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-03 02:43:34 UTC
From: Norm VE3CZI <ve3czi@arrl.net>
Message-ID: <e4pFc.33406$XY6.2473076@read2.cgocable.net>
Source record: 25105
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.swap

Have a quantity of Radio Communications Service Manuals, both Commercial & Amateur that I have rescued from the Dumpster. If you are a Johnson 2 way dealer, I have a large amount of surplus manuals, RF Transistors, SMT components, covers, parts in general that came from the PPL-6050, 577 generation of Johnson Equipment. I have itemized some parts, but am considering selling them ALL as a LOT purchase especially the smaller (don't know what they are) parts...CHEAP!

Please check my site: www.rodemi.com for what is available. I am updating the site as time allows.

If you are interested in buying the Jsn parts as a LOT purchase at a very reasonable Price, let me know and we can work it out. Contact me if you have any interest
I'm quite negotiable..have to make room in the garage for my vehicles!
Thanks for looking....Norm VE3CZI

624. Re: "Carl & Jerry" series from Popular Electronics

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-03 03:29:11 UTC
From: yazoo city <nospam@nospam.org>
Message-ID: <ou9ce01l8b4mqrvinhs2gk2073e6iv7v26@4ax.com>
Source record: 25106

On Fri, 02 Jul 2004 14:41:41 -0500, wa0goz@arrl.net wrote:

>yazoo city wrote:
>>
>> On Thu, 01 Jul 2004 21:09:35 GMT, Allen Windhorn
>> <Allen.Windhorn@LSUSA.com> wrote:
>>
>> >Has this series of articles ever been reprinted? If so, under what
>> >title and form?
>> >
>> >Thanks,
>> >Allen
>>
>> look in alt.binaries.pictures.radios
>
>When I try news:alt.binaries.pictures.radios I get a message that
>says no such newsgroup.
>
>Suggestion?
>
>Henry

Oops...try this

alt.binaries.pictures.radio

625. Packet Radio Bulletins

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-03 06:14:10 UTC
From: Ken Williams <gw3tmh@gb7abc.net>
Message-ID: <cc5iramvc1@news7.svr.pol.co.uk>
Source record: 25107
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.space

You can read all the latest packet radio bulletins at www.hamserv.net

--
Ken Williams

http://www.gb7abc.net

626. Re: Packet Radio Bulletins

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-03 09:25:24 UTC
From: "k.simons" <tk220@sdf.com>
Message-ID: <8YuFc.149$hW3.128@newsfe5-win.ntli.net>
Source record: 25108
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.space

That reminds me more of the good old TCP/IP days in the North West - when NWPUG were never interested in anything apart from AX25 and FlexNet which can't even run on modern systems!

"Ken Williams" <gw3tmh@gb7abc.net> wrote in message news:cc5iramvc1@news7.svr.pol.co.uk...
> You can read all the latest packet radio bulletins at www.hamserv.net
>
>
> --
> Ken Williams
>
> http://www.gb7abc.net
>
>

627. Re: Surplus Service Manuals & EF Johnson Parts

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-03 12:38:20 UTC
From: Lou <FFSTA17NO@SPAMACCESS995.COM>
Message-ID: <0NxFc.1501$Wd.7810@ord-read.news.verio.net>
Source record: 25109
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.swap

I tried to reply to you, and it wouldn't let my message go through. E-mail me and remove NO SPAM when you do.

Lou

"Norm VE3CZI" <ve3czi@ arrl.net> wrote in message news:e4pFc.33406$XY6.2473076@read2.cgocable.net...
> Have a quantity of Radio Communications Service Manuals, both Commercial &
> Amateur that I have rescued from the Dumpster. If you are a Johnson 2 way
> dealer, I have a large amount of surplus manuals, RF Transistors, SMT
> components, covers, parts in general that came from the PPL-6050, 577
> generation of Johnson Equipment. I have itemized some parts, but am
> considering selling them ALL as a LOT purchase especially the smaller (don't
> know what they are) parts...CHEAP!
>
> Please check my site: www.rodemi.com for what is available. I am updating
> the site as time allows.
>
> If you are interested in buying the Jsn parts as a LOT purchase at a very
> reasonable Price, let me know and we can work it out. Contact me if you
> have any interest
> I'm quite negotiable..have to make room in the garage for my vehicles!
> Thanks for looking....Norm VE3CZI
>
>
>
>

628. R2Pro

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-03 15:28:49 UTC
From: bobb <bobb@webgogger.net>
Message-ID: <40e6cfc6_2@newsfeed.slurp.net>
Source record: 25110

Are there any active sites for the R2Pro?

629. AD9854 DDS VFO

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-03 16:17:52 UTC
From: bobb <bobb@webgogger.net>
Message-ID: <40e6db40_3@newsfeed.slurp.net>
Source record: 25111

I am looking for a AD9854 DDS VFO Kit to use with a R2Pro. The AmQRP kit is not ready as yet. are there any other kits?

630. Re: R2Pro

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-03 17:27:50 UTC
From: Ken Scharf <wa2mzeNOTTHIS@bellsouth.net>
Message-ID: <NSBFc.153$jJ3.105@bignews5.bellsouth.net>
Source record: 25112

bobb wrote:
> Are there any active sites for the R2Pro?
>
>
Try google. I got quite a few hits
with just "r2pro"

631. FA: R-390 Small+Medium Knobs + more

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-03 20:54:31 UTC
From: Heytubeguy <heytubeguy@worldnet.att.net>
Message-ID: <b2FFc.185741$Gx4.44735@bgtnsc04-news.ops.worldnet.att.net>
Source record: 25113

See complete listing if interested at:

http://cgi6.ebay.com/ws/eBayISAPI.dll?ViewSellersOtherItems&userid=heytubeguy&completed=0&sort=3&since=-1&include=0&page=1&rows=25

Tnx 73 , Heytubeguy

632. FA: 01A'S Ceramic Base + more items

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-03 20:55:08 UTC
From: Heytubeguy <heytubeguy@worldnet.att.net>
Message-ID: <M2FFc.185744$Gx4.152917@bgtnsc04-news.ops.worldnet.att.net>
Source record: 25114

See complete listing if interested at:

http://cgi6.ebay.com/ws/eBayISAPI.dll?ViewSellersOtherItems&userid=heytubeguy&completed=0&sort=3&since=-1&include=0&page=1&rows=25

Tnx 73 , Heytubeguy

633. Mum Undressing 6796

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-04 00:35:27 UTC
From: mdavis@wp.shawcable.net
Message-ID: <jhIFc.952164$Pk3.564921@pd7tw1no>
Source record: 25115
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.packet,rec.radio.amateur.policy,rec.radio.amateur.space,rec.radio.amateur.swap

Hi, im 17 years old and was kinda freaked out when i caught my mum nude on my webcam. Posted the pics anyway haha. Enjoy!
eijwuitsmxkpszchwcjbblwcleqlrqrbwizbjrpjeizojkvyypquvsdbddobmdiqfrwpxjvzzmmgdsfcxqpveslespgsllsi

634. Re: Direct TV disk and LNA

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-04 01:49:19 UTC
From: Uncle Peter <radioconnectionNO@cox.netSPAM>
Message-ID: <hlJFc.1078$O14.557@lakeread03>
Source record: 25116

<sdeyoreo@hotmail.com> wrote in message
news:4re6e0tov1bct45qtkl7bb2bgcvkd899rc@4ax.com...
> Dave is correct about the IF freq, but: the local osc in the LNB
> covers two ranges: 13 to 18 VDC it will osc in the low band, 22-28 it
> will osc in the high band. The LNBs I've seen use an signal about
> 20khz sent from the satellite reciever to switch polarizations.
> Adjacent channels are oppisitely polarized, circularly.
>
The normal DTV uses 13 or 18 to switch polarity. The 20kHz is
probably required for the triple or dual LNBs to select which
of the three birds is being received.

Pete

635. Cancel "Alexanderson generatoor transmits on 17.2kHz next week-end"

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-04 16:43:23 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <nscge0h45je32qh35mqodhcgpoo908cv4i@4ax.com>
Source record: 25117

J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

636. Cancel "Re: Alexanderson generatoor transmits on 17.2kHz next week-end"

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-04 16:43:23 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <3tcge0d2ikp5a2j227bb9tms8g9amf99bc@4ax.com>
Source record: 25118

```
---
J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm
```

637. Re: Surplus Service Manuals & EF Johnson Parts

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-04 16:48:04 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <r2dge0p5hmnu39fid4f853o1a1oki9ik5c@4ax.com>
Source record: 25119
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.swap

what is your problem? You only need to remove a "space" after @ in the
email address

On Sat, 03 Jul 2004 12:38:20 GMT, "Lou" <FFSTA17NO@SPAMACCESS995.COM>
wrote:

>I tried to reply to you, and it wouldn't let my message go through. E-mail
>me and remove NO SPAM when you do.
>
>Lou
>
>"Norm VE3CZI" <ve3czi@ arrl.net> wrote in message
>news:e4pFc.33406$XY6.2473076@read2.cgocable.net...

J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

638. Re: Surplus Service Manuals & EF Johnson Parts

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-04 17:32:07 UTC
From: Lou <FFSTA17NO@SPAMACCESS995.COM>
Message-ID: <raXFc.1536$Wd.9033@ord-read.news.verio.net>
Source record: 25120
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.swap

It said it wasn't "accepting" mail. And it wouldn't be the first time an
ARRL address had done this. Just forget it.
Lou

"J M Noeding" <la8ak@online.no> wrote in message
news:r2dge0p5hmnu39fid4f853o1a1oki9ik5c@4ax.com...
> what is your problem? You only need to remove a "space" after @ in the
> email address
>
> On Sat, 03 Jul 2004 12:38:20 GMT, "Lou" <FFSTA17NO@SPAMACCESS995.COM>
> wrote:
>
> >I tried to reply to you, and it wouldn't let my message go through.
E-mail
> >me and remove NO SPAM when you do.
> >
> >Lou
> >
> >"Norm VE3CZI" <ve3czi@ arrl.net> wrote in message
> >news:e4pFc.33406$XY6.2473076@read2.cgocable.net...
>
> ---
> J. M. Noeding, LA8AK, N-4623 Kristiansand
> http://home.online.no/~la8ak/c.htm

639. Re: Surplus Service Manuals & EF Johnson Parts

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-04 17:37:54 UTC
From: Lou <FFSTA17NO@SPAMACCESS995.COM>
Message-ID: <SfXFc.1537$Wd.9049@ord-read.news.verio.net>
Source record: 25121
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.swap

AND, I do NOT conclude deals in open forum. If you were truly interested in selling the stuff, seeing I had a problem getting a message through, you'd have e-mailed me privately to conduct some business. I told you how to get through to me. I showed interest replying in the first place. I told you my message bounced. "I" have no problem. As I said, this isn't the first time an ARRL address has bounced or not accepted mail. Good luck.

Lou

"J M Noeding" <la8ak@online.no> wrote in message
news:r2dge0p5hmnu39fid4f853o1a1oki9ik5c@4ax.com...
> what is your problem? You only need to remove a "space" after @ in the
> email address
>
> On Sat, 03 Jul 2004 12:38:20 GMT, "Lou" <FFSTA17NO@SPAMACCESS995.COM>
> wrote:
>
> >I tried to reply to you, and it wouldn't let my message go through.
E-mail
> >me and remove NO SPAM when you do.
> >
> >Lou
> >
> >"Norm VE3CZI" <ve3czi@ arrl.net> wrote in message
> >news:e4pFc.33406$XY6.2473076@read2.cgocable.net...
>
> ---
> J. M. Noeding, LA8AK, N-4623 Kristiansand
> http://home.online.no/~la8ak/c.htm

640. Re: Surplus Service Manuals & EF Johnson Parts

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-04 18:08:37 UTC
From: whoever <whoever@centurytel.net>
Message-ID: <iMCdnUN-Q-092nXdRVn-hQ@centurytel.net>
Source record: 25122
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.swap

Lou
J M Noeding is the one who asked "what is your problem? "
Norm VE3CZI is the one with the manuals!
Two (2) different people!

Lou wrote:
> AND, I do NOT conclude deals in open forum. If you were truly interested in
> selling the stuff, seeing I had a problem getting a message through, you'd
> have e-mailed me privately to conduct some business. I told you how to get
> through to me. I showed interest replying in the first place. I told you my
> message bounced. "I" have no problem. As I said, this isn't the first time
> an ARRL address has bounced or not accepted mail. Good luck.
>
> Lou
>
> "J M Noeding" <la8ak@online.no> wrote in message
> news:r2dge0p5hmnu39fid4f853o1a1oki9ik5c@4ax.com...
>
>>what is your problem? You only need to remove a "space" after @ in the
>>email address
>>
>>On Sat, 03 Jul 2004 12:38:20 GMT, "Lou" <FFSTA17NO@SPAMACCESS995.COM>
>>wrote:
>>
>>
>>>I tried to reply to you, and it wouldn't let my message go through.
>
> E-mail
>
>>>me and remove NO SPAM when you do.
>>>
>>>Lou
>>>
>>>"Norm VE3CZI" <ve3czi@ arrl.net> wrote in message
>>>news:e4pFc.33406$XY6.2473076@read2.cgocable.net...
>>
>>---
>>J. M. Noeding, LA8AK, N-4623 Kristiansand
>>http://home.online.no/~la8ak/c.htm
>
>
>

641. Re: Surplus Service Manuals & EF Johnson Parts

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-04 18:26:56 UTC
From: whoever <whoever@centurytel.net>
Message-ID: <R-OdnS0GP4F11nXd4p2dnA@centurytel.net>
Source record: 25123
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.swap

Lou
You could goto his website and click on his email there.
http://home.cogeco.ca/~rodemi/Forsale/Itemstosell.html

Lou wrote:

> I tried to reply to you, and it wouldn't let my message go through. E-mail
> me and remove NO SPAM when you do.
>
> Lou
>
> "Norm VE3CZI" <ve3czi@ arrl.net> wrote in message
> news:e4pFc.33406$XY6.2473076@read2.cgocable.net...
>
>>Have a quantity of Radio Communications Service Manuals, both Commercial &
>>Amateur that I have rescued from the Dumpster. If you are a Johnson 2 way
>>dealer, I have a large amount of surplus manuals, RF Transistors, SMT
>>components, covers, parts in general that came from the PPL-6050, 577
>>generation of Johnson Equipment. I have itemized some parts, but am
>>considering selling them ALL as a LOT purchase especially the smaller
>
> (don't
>
>>know what they are) parts...CHEAP!
>>
>>Please check my site: www.rodemi.com for what is available. I am updating
>>the site as time allows.
>>
>>If you are interested in buying the Jsn parts as a LOT purchase at a very
>>reasonable Price, let me know and we can work it out. Contact me if you
>>have any interest
>>I'm quite negotiable..have to make room in the garage for my vehicles!
>>Thanks for looking....Norm VE3CZI
>>
>>
>>
>>
>
>
>

642. Re: Surplus Service Manuals & EF Johnson Parts

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-04 20:46:32 UTC
From: Who knows? <Whoknows@noone.com>
Message-ID: <I0_Fc.1539$Wd.9171@ord-read.news.verio.net>
Source record: 25124
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.swap

My apologies!

Lou

"whoever" <whoever@centurytel.net> wrote in message
news:iMCdnUN-Q-092nXdRVn-hQ@centurytel.net...
> Lou
> J M Noeding is the one who asked "what is your problem? "
> Norm VE3CZI is the one with the manuals!
> Two (2) different people!
>
> Lou wrote:
> > AND, I do NOT conclude deals in open forum. If you were truly interested
in
> > selling the stuff, seeing I had a problem getting a message through,
you'd
> > have e-mailed me privately to conduct some business. I told you how to
get
> > through to me. I showed interest replying in the first place. I told you
my
> > message bounced. "I" have no problem. As I said, this isn't the first
time
> > an ARRL address has bounced or not accepted mail. Good luck.
> >
> > Lou
> >
> > "J M Noeding" <la8ak@online.no> wrote in message
> > news:r2dge0p5hmnu39fid4f853o1a1oki9ik5c@4ax.com...
> >
> >>what is your problem? You only need to remove a "space" after @ in the
> >>email address
> >>
> >>On Sat, 03 Jul 2004 12:38:20 GMT, "Lou" <FFSTA17NO@SPAMACCESS995.COM>
> >>wrote:
> >>
> >>
> >>>I tried to reply to you, and it wouldn't let my message go through.
> >
> > E-mail
> >
> >>>me and remove NO SPAM when you do.
> >>>
> >>>Lou
> >>>

> >>>"Norm VE3CZI" <ve3czi@ arrl.net> wrote in message
> >>>news:e4pFc.33406$XY6.2473076@read2.cgocable.net...
> >>
> >>---
> >>J. M. Noeding, LA8AK, N-4623 Kristiansand
> >>http://home.online.no/~la8ak/c.htm
> >
> >
> >
>

643. Re: Surplus Service Manuals & EF Johnson Parts

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-04 20:46:48 UTC
From: Who knows? <Whoknows@noone.com>
Message-ID: <Y0_Fc.1540$Wd.9209@ord-read.news.verio.net>
Source record: 25125
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.swap

Thanks!

Lou

"whoever" <whoever@centurytel.net> wrote in message
news:R-OdnS0GP4F11nXd4p2dnA@centurytel.net...
> Lou
> You could goto his website and click on his email there.
> http://home.cogeco.ca/~rodemi/Forsale/Itemstosell.html
>
> Lou wrote:
>
> > I tried to reply to you, and it wouldn't let my message go through.
E-mail
> > me and remove NO SPAM when you do.
> >
> > Lou
> >
> > "Norm VE3CZI" <ve3czi@ arrl.net> wrote in message
> > news:e4pFc.33406$XY6.2473076@read2.cgocable.net...
> >
> >>Have a quantity of Radio Communications Service Manuals, both Commercial
&
> >>Amateur that I have rescued from the Dumpster. If you are a Johnson 2
way
> >>dealer, I have a large amount of surplus manuals, RF Transistors, SMT
> >>components, covers, parts in general that came from the PPL-6050, 577
> >>generation of Johnson Equipment. I have itemized some parts, but am
> >>considering selling them ALL as a LOT purchase especially the smaller
> >
> > (don't
> >
> >>know what they are) parts...CHEAP!
> >>
> >>Please check my site: www.rodemi.com for what is available. I am
updating
> >>the site as time allows.
> >>
> >>If you are interested in buying the Jsn parts as a LOT purchase at a
very
> >>reasonable Price, let me know and we can work it out. Contact me if
you
> >>have any interest
> >>I'm quite negotiable..have to make room in the garage for my vehicles!

> >>Thanks for looking....Norm VE3CZI
> >>
> >>
> >>
> >>
> >
> >
> >
>

644. Re: Surplus Service Manuals & EF Johnson Parts

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-04 22:52:42 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <g72he0d57smiht20q67r3edr0k6s9185fo@4ax.com>
Source record: 25126
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.swap

On Sun, 04 Jul 2004 17:37:54 GMT, "Lou" <FFSTA17NO@SPAMACCESS995.COM>
wrote:

> you'd
>have e-mailed me privately to conduct some business.
>
That would certainly be a greater challenge than posting an email to
VE3CZI, you might have a definite problem with
FFSTA17NO@SPAMACCESS995.COM

J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

645. Re: Surplus Service Manuals & EF Johnson Parts

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-04 23:50:18 UTC
From: Lou <FFSTA17NO@SPAMACCESS995.COM>
Message-ID: <_I0Gc.1755$Wd.9368@ord-read.news.verio.net>
Source record: 25127
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.swap

WHY? All you need to do is remove the "NO SPAM". AND if you had read my reply to him in group when my message bounced, I even stated that. So, unless someone has trouble reading, then they wouldn't have that problem!

But ya know.... right now, I don't really give a rats ass. I've had enough of this crap. My message bounced, I replied in group. I've yet to hear from him, SOooooo......

Lou

"J M Noeding" <la8ak@online.no> wrote in message news:g72he0d57smiht20q67r3edr0k6s9185fo@4ax.com...
> On Sun, 04 Jul 2004 17:37:54 GMT, "Lou" <FFSTA17NO@SPAMACCESS995.COM>
> wrote:
>
> > you'd
> >have e-mailed me privately to conduct some business.
> >
> That would certainly be a greater challenge than posting an email to
> VE3CZI, you might have a definite problem with
> FFSTA17NO@SPAMACCESS995.COM
>
> ---
> J. M. Noeding, LA8AK, N-4623 Kristiansand
> http://home.online.no/~la8ak/c.htm

646. Cancel "Re: Surplus Service Manuals & EF Johnson Parts"

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-04 23:54:15 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <156he0566n8clq63a424aekenmjct77cie@4ax.com>
Source record: 25128

J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

647. FA: RCA 7213 AF UHF Microwave Transmitter Tube

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-05 03:41:00 UTC
From: starwars <nobody@invalid.com>
Message-ID: <2ks0u0F4ljrjU1@uni-berlin.de>
Source record: 25129
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

"starwars" <nobody@invalid.com> wrote in message
news:2krupeF5e6b7U1@uni-berlin.de...
> ceramic power tube 1.2 KW @ 1.2 GHz (I think, data sheet url there too)
> no reserve
>
>
http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=5707597973&ssPageName=STRK:MESE:IT
>
>

648. Help with Vintage crystal unit

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-05 07:30:11 UTC
From: ronayling@hotmail.com
Message-ID: <921a5e96.0407042330.571188e2@posting.google.com>
Source record: 25130

Hi, I have an old crystal unit quite large about the size of an average octal valve, metal circular, it has Crystal unit type 10/X C/2 written on the base, the base is a sort of crimped copper with a mounting flange, no indication of frequency, has anyone any info on this please? thanks from Ron...

649. Re: FT-101ZD problem.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-05 18:03:18 UTC
From: Ari Pietik&#65533;inen <nooh2bsispam@sral.fi>
Message-ID: <GJgGc.297$bo5.64@read3.inet.fi>
Source record: 25131

Hi,
fixed similar case some years ago, the reason was that one contact inside
VFO assembly had never seen solder. It was wrapped but not soldered, all
other contacts were OK.

After the fix everything worked fine. I do not have the serial number, it
was a friend's rig that has since been sold.

73!
Ari

"Willy" <f4uiu_nospam@wanadoo.fr> kirjoitti viestiss&#65533;
news:cbsnib$jp4$1@news-reader1.wanadoo.fr...
> Thanks for those firsts advices.
> At the first time, we have found some bad solders, but probably
> not all the ones.
> We have remplaced the electrochimic capacitors in the main power
> supply, they were very "tired".
> When the problem arrives, the reception is cut on all bands but
> sometimes, the frequency counter continue to display good numbers
> only on some bands.
> We're going to continue to climb this mountain, meter by meter.
> Thanks.
>
> Guillaume.
>
>
>

650. EMI problem...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-05 20:31:27 UTC
From: nospam@nowhere.nil
Message-ID: <qjdje0tqv20u2q62omijgfva4o2nrc62r9@4ax.com>
Source record: 25132

I'm trying to track down an EMI problem.
This is with my solar powered RC plane.

Specifics:
I'm using standard 6M RC gear from JR on ch 04, FM on 50.880 Mhz.
I've got two receivers that exhibit exactly the same problem.
A JR FM receiver and a berg FM receiver.

Both work fine until I turn on my switching solar maximum power point tracker.

The power tracker runs 6 seperate channels at about 25W each channel.
The switcher runs at ~ 150Khz +/- 20Khz

I've filered, shielded and added caps with very little effect.

The receiver is in the tail of the airplane the converter in the front,. There is currently no electrical connection from the receiver to the other electronics on the plane. I'm currently powering the receiver from battries. The only connection is capactive to the carbon fiber airframe.

I'm using an Icom R3 to hunt for the EMI.

The Icom receivers shows the 50.880 signal clear as a bell.
When I turn the TX off the icom sees no no difference in background signal with the power converter either on or off.

When I run the Icom receiver tuned to 50.880 near the RC receiver I see a significant reduction in range, but not as much reduction as when I run the power converter.

My first theory is that I am generating IF or image noise that is clobbering the receiver.
To test this I set a signal generator out next to the receiver and ran it at 450Khz, 455Khz and 10.7 Mhz with no effect on range.
(signal generator is an old digital fluke runing 13dbm into a 2 ft peice of wire)

Any ideas on what I can do to solve this... it is driving me crazy, I've been working on it for more than a month.

Paul (Kl7JG)

651. Re: EMI problem...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-05 22:50:55 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10ejmq61it67nab@corp.supernews.com>
Source record: 25133

nospam@nowhere.nil wrote:

> I'm trying to track down an EMI problem.
> This is with my solar powered RC plane.
>
> Specifics:
> I'm using standard 6M RC gear from JR on ch 04, FM on 50.880 Mhz.
> I've got two receivers that exhibit exactly the same problem.
> A JR FM receiver and a berg FM receiver.
>
> Both work fine until I turn on my switching solar maximum power point
> tracker.
>
> The power tracker runs 6 seperate channels at about 25W each channel.
> The switcher runs at ~ 150Khz +/- 20Khz
>
> I've filered, shielded and added caps with very little effect.
>
> The receiver is in the tail of the airplane the converter in the
> front,. There is currently no electrical connection from the receiver
> to the other electronics on the plane. I'm currently powering the
> receiver from battries. The only connection is capactive to the
> carbon fiber airframe.
>
> I'm using an Icom R3 to hunt for the EMI.
>
> The Icom receivers shows the 50.880 signal clear as a bell.
> When I turn the TX off the icom sees no no difference in background
> signal with the power converter either on or off.
>
>
> When I run the Icom receiver tuned to 50.880 near the RC receiver I
> see a significant reduction in range, but not as much reduction as
> when I run the power converter.
>
> My first theory is that I am generating IF or image noise that is
> clobbering the receiver.
> To test this I set a signal generator out next to the receiver and ran
> it at 450Khz, 455Khz and 10.7 Mhz with no effect on range.
> (signal generator is an old digital fluke runing 13dbm into a 2 ft
> peice of wire)
>
>
> Any ideas on what I can do to solve this... it is driving me crazy,

> I've been working on it for more than a month.
>
> Paul (Kl7JG)
>
>
Try the image frequencies (probably 29.48MHz, but possibly 72.28MHz).
You may also want to try RX +/- 455kHz as well.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

652. Re: EMI problem...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-06 05:07:37 UTC
From: Jim Pennell <Nospam@killspam.com>
Message-ID: <tsqGc.6774$oD3.4517@newsread1.news.pas.earthlink.net>
Source record: 25134

This may be simple overload of the front end of the RC reciever. I suspect it has little selectivity before the first stage and the tracker unit is simply blowing through the filter.

It's been quite awhile since I did any RC work, but if it has a separate Rx Antenna input to the RC reciever, you might try wrapping the reciever i tin foil, and adding some high pass filters between the antenna and the reciever. Make sure to shield the filters too, that much energy could easily couple into the coils used in building the high pass filter.

Jim Pennell
N6BIU

653. Re: EMI problem...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-06 05:28:35 UTC
From: nospam@nowhere.nil
Message-ID: <90eke0ppb0h7qeskqdnvf4gii6l6j709av@4ax.com>
Source record: 25135

How would one of the Minicircuit Prepackaged can filters be?
My guess is smaller, lighter and more robust than what I can build.

I've been using some adhesive backed Cu and Al tape to shield things,
tried shielding the Rx, to no avail, but a front end bandpass filter
was going to be my next step.

Paul

On Tue, 06 Jul 2004 05:07:37 GMT, "Jim Pennell" <Nospam@killspam.com>
wrote:

> This may be simple overload of the front end of the RC reciever. I
>suspect it has little selectivity before the first stage and the tracker
>unit is simply blowing through the filter.
>
> It's been quite awhile since I did any RC work, but if it has a separate
>Rx Antenna input to the RC reciever, you might try wrapping the reciever i
>tin foil, and adding some high pass filters between the antenna and the
>reciever. Make sure to shield the filters too, that much energy could
>easily couple into the coils used in building the high pass filter.
>
>
>
> Jim Pennell
> N6BIU
>

654. Re: A neat and compact way to generate RF harmonics...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-06 07:54:09 UTC
From: Don Young <dcyoung9@comcast.net>
Message-ID: <40EA5AA1.50804@comcast.net>
Source record: 25136
Cross-posted to: sci.electronics.design,rec.radio.amateur.homebrew

John,
Are you saying you have some SRDs available?
I could use a couple in a GPR I'm working on.
Part of the Sample pulse generator.
Don

John Larkin wrote:

> On Mon, 12 Apr 2004 19:09:51 GMT, "Harold E. Johnson"
> <W4ZCB@mchsi.com> wrote:
>
>
>>>If you do use diodes for higher-order harmonic generation, and not
>>>just a simple full-wave-rectifier type frequency doubler, I suppose
>>>you want something of the nature of a step recovery diode. That
>>>implies minority carrier stored charge in the diode, and that would
>>>preclude using a Schottky diode (which would work great in the
>>>full-wave-rectifier type doubler). If you get into actually wanting
>>>to generate harmonic combs out to microwave frequencies, it's probably
>>>worthwhile looking for diodes actually characterized for step recovery
>>>service. But I really think that's way beyond what you are trying to
>>>accomplish right now.
>>>
>>My turn to learn something here. Tom, would you elaborate a bit on the above
>>please? I know SRD's are comb generators out to visible light, but they're
>>also 50 percent hard to find and 50 percent magic. I've been using
>>Schottky's for X16 multipliers to 2 GHz, am I doing something wrong? (I keep
>>promising myself that I'm gonna substitute an MMIC for that one day, I DID
>>find the "Filter Gain" in the line length from generator to filter), THAT
>>was both impressive AND helpful. If I go with the MMIC, any preference of
>>Silicon over GaAs?
>>
>>Regards
>>
>>W4ZCB
>>
>>
>
> The only distributor-stock SRDs I know of are the M/Acom MA44767,
> MA44768, MA44769 parts, all SOT-23 and dirt cheap. I think Penstock
> carries them. The '68 or '69 should be good for multiplication to 2
> GHz. For high ratios, an SRD will beat a plain diode by a huge amount.
> There are lots of appnotes around about using them as multipliers.
>

> I have a bunch in stock and can send a few to anybody who wants to
> play.
>
> John
>
>

--
My web pages ....VVVVVVVV.................
Window to My World: http://home.comcast.net/~dcyoung9/fpa/
Faux-Oro, Remove SPAM to E-Mail, Have Cesium Mag. Will Travel

655. What sort of enclosures do you use ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-06 10:07:55 UTC
From: Damien Teney <damien.teney@sobelairva.net>
Message-ID: <Q9ednX5FO7dg5HfdRVn-vw@scarlet.biz>
Source record: 25137

Hello everybody,
I just finished my first homebrew radio, a VHF receiver with PLL, and it's time to put it in a box ! I've often read that HF circuits should be put in metal boxes, but I don't know which one should choose. Are "sealed" enclosures such as this one
http://www.velleman.be/common/product.Aspx?lan=1&id=7318
better than boxes like that one
http://www.velleman.be/common/product.Aspx?lan=1&id=11184 ?

And do you think that plastic and ABS boxes are really bad for HF circuits ?

Thanks for your answers !

656. Re: Have you ever lusted to witness the Simpsons fucking eachother?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-06 11:00:42 UTC
From: GuitarMan <usa@yourface.com>
Message-ID: <uDvGc.13055$ne6.2589@nwrdny03.gnilink.net>
Source record: 25138
Cross-posted to: alt.cable-tv,alt.binaries.guitar.tab,rec.radio.amateur.homebrew

"Sac" <jigglingBart@cosmicorgy.com> wrote in message
news:zAvGc.21161$vO1.116090@nnrp1.uunet.ca...
> Plus homer & Marge having sex with Lisa Simpson

sent to: postmaster@eastlink.ca
sent to: abuse@eastlink.ca
sent to: support@eastlink.ca

657. JACKSON BROS, 410uuF CAPS, MANY OTHER THINGS.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-06 11:45:50 UTC
From: dialcover@webtv.net
Message-ID: <11065-40EA90EE-20@storefull-3253.bay.webtv.net>
Source record: 25140

DIAL COVERS, MULTISECTION CARDBOARD CAPS, IL6, REBUILT TUBES, COIL FORMS, MANUALS. WA0ABI

CHECK MY WEBSITE: www.dialcover.com
Bill Turner, excuse caps, short answers, stroke.
Business SASE, each order a copy of The Pocket Resource Guide.

658. RCA 7213 Toob datasheet wanted

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-06 11:47:35 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <t54le0l7iv57uojprt1bepnr5dcg6go0ng@4ax.com>
Source record: 25139
Cross-posted to: sci.electronics.design,rec.radio.amateur.homebrew

Hi,

I've tried Googling but without success. Anyone got a 'sheet lying
around in .pdf or whatever they could post to abse?

Thanks.

p.
--

"What is now proved was once only imagin'd." - William Blake, 1793.

659. Re: RCA 7213 Toob datasheet wanted

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-06 12:08:42 UTC
From: Duncan Munro <postmaster@duncanamps.com>
Message-ID: <1cxqts1cdgqkx$.1g7uk250ijjnt.dlg@40tude.net>
Source record: 25141
Cross-posted to: sci.electronics.design,rec.radio.amateur.homebrew

On Tue, 06 Jul 2004 12:47:35 +0100, Paul Burridge wrote:

> Hi,
>
> I've tried Googling but without success. Anyone got a 'sheet lying
> around in .pdf or whatever they could post to abse?

Paul, try:

http://tdsl.duncanamps.com/show.php?des=7213

--
Duncan Munro
http://www.duncanamps.com/

660. Re: What sort of enclosures do you use ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-06 13:05:48 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <MsxGc.62277$_5.39830@clgrps13>
Source record: 25142

Hmmmm. I get a "404" at both URL's.

In 22 years of this hobby, RF and audio, I have used every material you can shake a stick at, even gold.

Plastic, IMO, is for Saran wrap and should stay there ;-)

Wood, tin, copper, brass, aluminum and steel, in that order, are my personal preferences.

For HF circuits, tin is a superb shield, soft enough to cut with scissors and easily solderable. As long as your HF circuits are well shielded, the outer cabinet is restricted only to the materials that will be needed to withstand the abuse you want to put it through.

--
Gregg
It's probably useful, even if it can't be SPICE'd
http://geek.scorpiorising.ca

661. Re: RCA 7213 Toob datasheet wanted

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-06 14:39:04 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10elebtveii70a@corp.supernews.com>
Source record: 25143
Cross-posted to: sci.electronics.design,rec.radio.amateur.homebrew

Duncan Munro wrote:

> On Tue, 06 Jul 2004 12:47:35 +0100, Paul Burridge wrote:
>
>
>>Hi,
>>
>>I've tried Googling but without success. Anyone got a 'sheet lying
>>around in .pdf or whatever they could post to abse?
>
>
> Paul, try:
>
> http://tdsl.duncanamps.com/show.php?des=7213
>
Duncan you didn't check your own site (I assume you're the Duncan of
Duncan Amps) - it has no data for this tube. The NJ7P has data but no
base diagram, but Frank's has the page from RCA:
http://frank.pocnet.net/sheets/049/7/7213.pdf.

Good site, none the less.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

662. Re: AD9854 DDS VFO

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-06 14:48:12 UTC
From: Mr G H Ireland <igor@argonet.co.uk>
Message-ID: <na.46453b4cca.a80320igor@argonet.co.uk>
Source record: 25053

In article <40e6db40_3@newsfeed.slurp.net>, "bobb" <bobb@webgogger.net>
wrote:
>
> I am looking for a AD9854 DDS VFO Kit to use with a R2Pro. The AmQRP kit
> is
> not ready as yet. are there any other kits?
>
And are there any similar kits in the U.K.?
G.H.Ireland.

--
igor

Acorn RISC OS4
---

663. Re: What sort of enclosures do you use ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-06 14:52:41 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10elf5egajfro64@corp.supernews.com>
Source record: 25144

Damien Teney wrote:

> Hello everybody,
> I just finished my first homebrew radio, a VHF receiver with PLL, and it's
> time to put it in a box ! I've often read that HF circuits should be put in
> metal boxes, but I don't know which one should choose. Are "sealed"
> enclosures such as this one
> http://www.velleman.be/common/product.Aspx?lan=1&id=7318
> better than boxes like that one
> http://www.velleman.be/common/product.Aspx?lan=1&id=11184 ?
>
> And do you think that plastic and ABS boxes are really bad for HF circuits ?
>
> Thanks for your answers !
>
>
Enclosures can cost you more than the whole rest of your project if
you're not careful.

The ideal box would be an aluminum or copper box, seamless, with no
holes. This would present problems with controlling your device,
getting power into it and signal out, so you have to make some compromises.

Depending on how sensitive your circuit is and how much RF it generates
you can go everywhere from no enclosure at all to a machined metal box.
For a VHF rig you probably want fairly good shielding.

For enclosures I go to hamfests and garage sales and buy old CB radios.
After I rip the guts out this gives me a good looking enclosure that's
designed for RF and costs way less than what a new one would.

Alternately you can make a really good, ugly enclosure by soldering
sections of unetched circuit board together -- see if there's a surplus
shop in your area that sells the stuff. I mount lids by soldering
sections of 1/8" brass tubing to the inside walls of my enclosure; you
can tap these to 4-40 and run a screw in them. Once you're done making
it work you can put it in a plastic box.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

664. Re: RCA 7213 Toob datasheet wanted

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-06 14:55:03 UTC
From: Duncan Munro <postmaster@duncanamps.com>
Message-ID: <o60tubtpfxpe$.1ppw5b5snfg5a$.dlg@40tude.net>
Source record: 25145
Cross-posted to: sci.electronics.design,rec.radio.amateur.homebrew

On Tue, 06 Jul 2004 07:39:04 -0700, Tim Wescott wrote:

> Duncan Munro wrote:

>> On Tue, 06 Jul 2004 12:47:35 +0100, Paul Burridge wrote:
>>>I've tried Googling but without success. Anyone got a 'sheet lying
>>>around in .pdf or whatever they could post to abse?

>> Paul, try:
>> http://tdsl.duncanamps.com/show.php?des=7213

> Duncan you didn't check your own site (I assume you're the Duncan of
> Duncan Amps) - it has no data for this tube. The NJ7P has data but no
> base diagram, but Frank's has the page from RCA:
> http://frank.pocnet.net/sheets/049/7/7213.pdf.

Hi Tim, I did check before posting - there are links to four data sources
from the TDSL page linked above:

Vade Mecum page on my own site with basing, data, curves
NJ7P with data (but no pinout/curves)
A link to the RCA data sheet on Franks site
A 2nd RCA sheet with lots of mechanical data, again on Franks site

--
Duncan Munro
http://www.duncanamps.com/

665. Re: What sort of enclosures do you use ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-06 15:05:10 UTC
From: xpyttl <xpyttl_NOSPAM@earthling.net>
Message-ID: <10elft95nneng21@corp.supernews.com>
Source record: 25146

"Gregg" <nospam@unknown.org> wrote in message
news:MsxGc.62277$_5.39830@clgrps13...

> Wood, tin, copper, brass, aluminum and steel, in that order, are my
> personal preferences.

Let me come up on the other side here. My list would be

plastic, aluminum, wood, copper, brass, tin, steel

OK, I'm lazy. If the circuits are well thought out they rarely need shielding, and plastic is easy to work, doesn't tarnish, looks decent, and it's cheap.

Copper tarnishes, steel rusts, and brass and tin are darned near impossible to get. Wood is a bit of a pain because to get decent strength it needs to be too thick for many controls. Besides, I'm a terrible carpenter!

The main problem with plastic is that cases of the size you need, whatever that size is, seem to be hard to find. But with a decent brake, you can get a sheet of aluminum and make whatever you want. Of course, it's a bunch more work than just buying a plastic case. But, you get exactly what you want. I don't think I would actually go out and buy a metal case unless it was something I considered very important. Getting a case of just the right size is just as hard as plastic, getting one that looks good even harder, and it's going to be bloody expensive.

One thing that works well sometimes ... cigar boxes. They are cheap, decent looking, especially with a little finishing, and come in a wide range of sizes. The problem is that you need to be careful with circuits that involve small controls, because of the thickness of the wood. There are plenty of cigar shops around that sell these things for a decent price.

So mostly I stick with plastic, and use aluminum when I get the urge to bend some metal.

..

666. Cancel "Re: Surplus Service Manuals & EF Johnson Parts"

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-06 15:27:56 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <a7hle0p2587cfq54f5lo0nmskvlv8r6hp6@4ax.com>
Source record: 25047
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.swap

---
J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

667. Re: RCA 7213 Toob datasheet wanted

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-06 15:37:14 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10elhp0pihqa01b@corp.supernews.com>
Source record: 25048
Cross-posted to: sci.electronics.design,rec.radio.amateur.homebrew

Duncan Munro wrote:

> On Tue, 06 Jul 2004 07:39:04 -0700, Tim Wescott wrote:
>
>
>>Duncan Munro wrote:
>
>
>
>>>On Tue, 06 Jul 2004 12:47:35 +0100, Paul Burridge wrote:
>>>
>>>>I've tried Googling but without success. Anyone got a 'sheet lying
>>>>around in .pdf or whatever they could post to abse?
>
>
>>>Paul, try:
>>> http://tdsl.duncanamps.com/show.php?des=7213
>
>
>>Duncan you didn't check your own site (I assume you're the Duncan of
>>Duncan Amps) - it has no data for this tube. The NJ7P has data but no
>>base diagram, but Frank's has the page from RCA:
>>http://frank.pocnet.net/sheets/049/7/7213.pdf.
>
>
> Hi Tim, I did check before posting - there are links to four data sources
> from the TDSL page linked above:
>
> Vade Mecum page on my own site with basing, data, curves
> NJ7P with data (but no pinout/curves)
> A link to the RCA data sheet on Franks site
> A 2nd RCA sheet with lots of mechanical data, again on Franks site
>
I'm bad -- I did see the other links at the bottom but I missed the PDF.
Since I didn't see the pinouts data up on top I assumed (with the full
meaning when you break it into it's three syllables).

My original complement on your site still stands, however.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

668. how to meas Zo of FT caps?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-06 21:21:07 UTC
From: sdeyoreo@hotmail.com
Message-ID: <1m5me0ln7f03kk997do37a72ebq9td19lq@4ax.com>
Source record: 25049

I have a bunch of small feedthru caps that I need to measure their Zo to assure it's 50 +/-10 ohms. Any thoughts on how to do it? I'm going to try to put a 50 ohm load on them and look at them with a network analyzer. I should be able to get it's Zo from the VSWR, no? Any other ways?

669. Re: how to meas Zo of FT caps?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-06 21:46:25 UTC
From: Bob Liesenfeld <wb0poq@visi.com>
Message-ID: <40EB1DB1.E3F2E409@visi.com>
Source record: 25050

sdeyoreo@hotmail.com wrote:
>
> I have a bunch of small feedthru caps that I need to measure their Zo
> to assure it's 50 +/-10 ohms. Any thoughts on how to do it? I'm going
> to try to put a 50 ohm load on them and look at them with a network
> analyzer. I should be able to get it's Zo from the VSWR, no? Any other
> ways?

Hmmmmm....Are you sure you mean feedthrough capacitors? My
understanding of FT caps is that they are a very low Z from the
terminal(s) to ground while allowing a DC voltage to pass through. I
don't see where you are getting the 50 Ohm Z value. But, perhaps I have
missed something. More info?

Bob WB0POQ

670. Re: how to meas Zo of FT caps?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-06 22:20:17 UTC
From: sdeyoreo@hotmail.com
Message-ID: <s69me097krgtv1f3rmssu6m39miq0k5bh8@4ax.com>
Source record: 25051

Not much more info. These are definetly feedthru caps and they want
them verified to be Zo of 50 +/- 10. (We're a small parts testing
house) Maybe they're meant to be signal feedthrus? I assumed they were
for power lines ,but you're right; being Zo = 50 they must be for
signals?
On Tue, 06 Jul 2004 16:46:25 -0500, Bob Liesenfeld <wb0poq@visi.com>
wrote:

>
>
>sdeyoreo@hotmail.com wrote:
>>
>> I have a bunch of small feedthru caps that I need to measure their Zo
>> to assure it's 50 +/-10 ohms. Any thoughts on how to do it? I'm going
>> to try to put a 50 ohm load on them and look at them with a network
>> analyzer. I should be able to get it's Zo from the VSWR, no? Any other
>> ways?
>
> Hmmmmm....Are you sure you mean feedthrough capacitors? My
>understanding of FT caps is that they are a very low Z from the
>terminal(s) to ground while allowing a DC voltage to pass through. I
>don't see where you are getting the 50 Ohm Z value. But, perhaps I have
>missed something. More info?
>
>Bob WB0POQ

671. Re: RCA 7213 Toob datasheet wanted

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-06 22:21:20 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <ld9me0ta6in1j1eu8i4jpphcfrjlkcnpq1@4ax.com>
Source record: 25052
Cross-posted to: sci.electronics.design,rec.radio.amateur.homebrew

On Tue, 6 Jul 2004 15:55:03 +0100, Duncan Munro
<postmaster@duncanamps.com> wrote:

>On Tue, 06 Jul 2004 07:39:04 -0700, Tim Wescott wrote:
>
>> Duncan Munro wrote:
>
>>> On Tue, 06 Jul 2004 12:47:35 +0100, Paul Burridge wrote:
>>>>I've tried Googling but without success. Anyone got a 'sheet lying
>>>>around in .pdf or whatever they could post to abse?
>
>>> Paul, try:
>>> http://tdsl.duncanamps.com/show.php?des=7213
>
>> Duncan you didn't check your own site (I assume you're the Duncan of
>> Duncan Amps) - it has no data for this tube. The NJ7P has data but no
>> base diagram, but Frank's has the page from RCA:
>> http://frank.pocnet.net/sheets/049/7/7213.pdf.
>
>Hi Tim, I did check before posting - there are links to four data sources
>from the TDSL page linked above:
>
> Vade Mecum page on my own site with basing, data, curves
> NJ7P with data (but no pinout/curves)
> A link to the RCA data sheet on Franks site
> A 2nd RCA sheet with lots of mechanical data, again on Franks site

Thanks, chaps, much appreciated.

p.

--

"What is now proved was once only imagin'd." - William Blake, 1793.

672. Re: how to meas Zo of FT caps?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-06 22:48:38 UTC
From: Dale Parfitt <par@parelectronics.com>
Message-ID: <a%FGc.18073$Xq4.6672@nwrddc02.gnilink.net>
Source record: 25054

<sdeyoreo@hotmail.com> wrote in message
news:1m5me0ln7f03kk997do37a72ebq9td19lq@4ax.com...
> I have a bunch of small feedthru caps that I need to measure their Zo
> to assure it's 50 +/-10 ohms. Any thoughts on how to do it? I'm going
> to try to put a 50 ohm load on them and look at them with a network
> analyzer. I should be able to get it's Zo from the VSWR, no? Any other
> ways?

Feedthrough caps are designed to be low inductance caps to ground- typically used to ensure no RF gets through on DC or bias lines. Never heard of a 50 Ohm designed feedthrough. My junkbox is full of 0.001 and 0.01 feed throughs. To be 50 Ohms it would need to be coaxial in nature- they may exist but never saw one. Bulkhead barrel connectors would fulfill that requirement.

Dale W4OP

673. Re: RCA 7213 Toob datasheet wanted

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-06 23:01:28 UTC
From: Duncan Munro <postmaster@duncanamps.com>
Message-ID: <1xdbi7902xmlf$.ay1vtrcwvwms.dlg@40tude.net>
Source record: 25055
Cross-posted to: sci.electronics.design,rec.radio.amateur.homebrew

On Tue, 06 Jul 2004 08:37:14 -0700, Tim Wescott wrote:

> I'm bad -- I did see the other links at the bottom but I missed the PDF.
> Since I didn't see the pinouts data up on top I assumed (with the full
> meaning when you break it into it's three syllables).

OK, no problems here.

> My original complement on your site still stands, however.

Much appreciated :-)

--
Duncan Munro
http://www.duncanamps.com/

674. Re: how to meas Zo of FT caps?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-06 23:19:00 UTC
From: jgboyles@aol.com
Message-ID: <20040706191900.26512.00001222@mb-m03.aol.com>
Source record: 25056

>We're a small parts testing
>house)
I assume you do testing for profit, this is an Amateur Radio newsgroup. But, since you asked :-).

>These are definetly feedthru caps and they want
>them verified to be Zo of 50 +/- 10.

The Zc of a capacitor (capacitive reactance) is frequency dependent. Not sure what Zo of a cap. refers to. At some frequency the capacitor will have a Zc=1/2*pi *f*c. I am sure you know that. An ideal capacitor will have a Zc=0-jZc. A real world capacitor will have a non-zero real part of R+-jX. To have the real part 50 ohms(Zo), must mean the frequency is in the VHF region or higher. To measure what you want, you need a Z meter with the capability of measuring the complex impedance of the feed-thru capacitors at the frequency of interest. I have an antenna analyzer that I use for that sort of thing, but it only reads capacitive reactance at the frequency of interest.
Not sure if this helps?
73 Gary N4AST

675. Re: how to meas Zo of FT caps?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-07 00:02:28 UTC
From: sdeyoreo@hotmail.com
Message-ID: <4veme0l2m2po7h9qmd9mt6oqjheoc9ohle@4ax.com>
Source record: 25057

Thanks for all the responses. There's not much info here. The lab manager gave me about 10 feedthru caps to verify the impedance. The "official" looking tag in the bag says "Zo=50+/-10 ohms". That's it. No freq, no capacitance. For sure they're feedthru caps, built like you're typical feedthru cap. I figured, for testing purposes, treat it like a small section of coax.I'm not even sure what freq they want it checked at. I'll have to get more details.

676. Re: how to meas Zo of FT caps?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-07 02:46:37 UTC
From: Bob Liesenfeld <wb0poq@visi.com>
Message-ID: <40EB640D.67B0415E@visi.com>
Source record: 25058

sdeyoreo@hotmail.com wrote:
>
> Thanks for all the responses. There's not much info here. The lab
> manager gave me about 10 feedthru caps to verify the impedance.

Curious. Very curious. From my experience, measuring the 'Zo of a feedthrough cap' would be something like measuring the 'color' of a miles/gallon rating of an automobile. Not an applicable unit of measurement.

> The
> "official" looking tag in the bag says "Zo=50+/-10 ohms".

And no manufacturer or part number on said official looking tag?

If it were April, and you were a new employee, I might suspect a bit of chicanery here. ;) ;)

Keep us posted. I'm always willing to learn new stuff. :)

Bob WB0POQ

677. Re: how to meas Zo of FT caps?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-07 06:50:10 UTC
From: Jim Adney <jadney@vwtype3.org>
Message-ID: <v85ne0pkk1eadhb0ihvtj9bj0gdohjqq5u@4ax.com>
Source record: 25059

On Tue, 06 Jul 2004 20:02:28 -0400 sdeyoreo@hotmail.com wrote:

>Thanks for all the responses. There's not much info here. The lab
>manager gave me about 10 feedthru caps to verify the impedance. The
>"official" looking tag in the bag says "Zo=50+/-10 ohms". That's it.
>No freq, no capacitance. For sure they're feedthru caps, built like
>you're typical feedthru cap. I figured, for testing purposes, treat it
>like a small section of coax.I'm not even sure what freq they want it
>checked at. I'll have to get more details.

Sounds to me like they are just feedthrus, not feedthru caps.

I don't think there's any way that a feedthru cap could have a Zo of
50 Ohms (pure resistive.) They are simply not made to pass RF; their
purpose is to serve as a short to RF.

-

Jim Adney jadney@vwtype3.org
Madison, WI 53711 USA
---

678. QRPp Magazine Spring 2003

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-07 07:23:48 UTC
From: PaoloC <ollollo@hotpop.com>
Message-ID: <2l1mnmF6u5i3U1@uni-berlin.de>
Source record: 25060

Hi,
I am looking for the article 'Handiman's Guide to MOSFET "Switched Mode"
Amplifiers: Part 2' by NA5N that appeared in the Spring 2003 edition of
QRPp magazine.

To my understanding the magazine does not exist anymore, and even
NorCal's QRP website is gone. (I know they merged with NJQRP into AmQRP.)

Does anybody know a way to order a past issue of QRPp Magazine?

Thanks,
Paolo IK1ZYW

--
QRPp-I #707 + www.paolocravero.tk + I QRP #476
Beacon @ 28.3219 MHz + QRPp + QRSS3 + JN35TC

679. FA:Ant.tube shields+knobs+ more

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-07 13:20:08 UTC
From: Heytubeguy <heytubeguy@worldnet.att.net>
Message-ID: <cMSGc.69123$OB3.53949@bgtnsc05-news.ops.worldnet.att.net>
Source record: 25061

See at :

http://cgi6.ebay.com/ws/eBayISAPI.dll?ViewSellersOtherItems&userid=heytubeguy&completed=0&sort=3&since=-1&include=0&page=1&rows=25

Check back often for new items added, Heytubeguy

680. Re: What sort of enclosures do you use ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-07 14:44:14 UTC
From: John Walton <jdwalton@comcast.net>
Message-ID: <BJudneMd2NDWlnHdRVn-sw@comcast.com>
Source record: 25062

My favorites are cases for HP equipment from the 1970's onward -- I bought several "broken" HP5328A frequency counters and the modular construction lends itself well to RF, Test and Audio equipment.

"Damien Teney" <damien.teney@sobelairva.net> wrote in message news:Q9ednX5FO7dg5HfdRVn-vw@scarlet.biz...
> Hello everybody,
> I just finished my first homebrew radio, a VHF receiver with PLL, and it's
> time to put it in a box ! I've often read that HF circuits should be put
in
> metal boxes, but I don't know which one should choose. Are "sealed"
> enclosures such as this one
> http://www.velleman.be/common/product.Aspx?lan=1&id=7318
> better than boxes like that one
> http://www.velleman.be/common/product.Aspx?lan=1&id=11184 ?
>
> And do you think that plastic and ABS boxes are really bad for HF circuits
?
>
> Thanks for your answers !
>
>

681. '73 Magazine'?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-07 14:56:43 UTC
From: Terry <tsanford@nf.sympatico.ca>
Message-ID: <qcUGc.28082$WM5.1204123@news20.bellglobal.com>
Source record: 25063

Is the 73 magazine still published?
If not when did it cease?
Seems to be a most interesting magazine for amateur constructors.
For example I have a November 1966 issue that; "Is published by 73 Inc.
Peterborough New Hampshire. 03458 ..... "
Publisher Wayne Green W2NSD, Editor Paul Franson WA1CCH.
Many thanks for any info or comments.
Terry.

682. Re: AD9854 DDS VFO

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-07 15:45:39 UTC
From: Craig Johnson <cbjohns@cbjohns.com>
Message-ID: <cch5r4$38d$1@si05.rsvl.unisys.com>
Source record: 25064

Bob,
"bobb" <bobb@webgogger.net> wrote in message
news:40e6db40_3@newsfeed.slurp.net...
> I am looking for a AD9854 DDS VFO Kit to use with a R2Pro. The AmQRP kit
is
> not ready as yet. are there any other kits?

My AD9854 DDS VFO kit will be available soon via the AmQRP.
More info on my web page: www.cbjohns.com/aa0zz
or contact me off line.

-Craig, AA�ZZ

683. Re: '73 Magazine'?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-07 15:49:30 UTC
From: et472@FreeNet.Carleton.CA
Message-ID: <cch62adjd1@freenet9.carleton.ca>
Source record: 25065

"Terry" (tsanford@nf.sympatico.ca) writes:
> Is the 73 magazine still published?
> If not when did it cease?
> Seems to be a most interesting magazine for amateur constructors.
> For example I have a November 1966 issue that; "Is published by 73 Inc.
> Peterborough New Hampshire. 03458 ..... "
> Publisher Wayne Green W2NSD, Editor Paul Franson WA1CCH.
> Many thanks for any info or comments.
> Terry.
>
>
No, the magazine died last fall (or was it the fall before?).

Of course, it had changed quite a bit since 1966.

Michael VE2BVW

684. Wide Freq Range?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-07 16:11:21 UTC
From: Rude Dog <snjr.spam@charter.net>
Message-ID: <10eo89b6kp7sd44@corp.supernews.com>
Source record: 25066

I hope members of this group can help me. I am in the Army National Guard and I am charged with setting up emergency communications for my unit. I need a transceiver that has a wide frequency range that can be issued to our civilian emergency responders for commo with our land mobile units (we cannot issue our military radios). I am looking for approximately 60 MHZ thru 500 MHZ.

Any suggestions?

Thanks!

685. Re: how to meas Zo of FT caps?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-07 16:18:34 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10eo8ire13cg694@corp.supernews.com>
Source record: 25067

To determine whether you really have a feedthrough capacitor, use a simple capacitance meter to measure the shunt C. (Surely an electronic parts measuring company has the capability to measure capacitance.) A feedthrough capacitor will probably measure somewhere between 100 pF to 0.1 uF, and the Z0 specification is meaningless, as others have pointed out. But if it's a coaxial transmission line feedthrough, the shunt C will be a pF or so at most.

To measure the Z0 of a coaxial transmission line feedthrough, you'll probably need a high speed TDR, like the Tek TDS 820, 11801, or older gear with high speed TDR plugins. HP makes similar gear. The problem with using a network analyzer is that the line is probably too short to make a good measurement, unless you have a 40 GHz or higher frequency analyzer, a really good termination, and know how to interpret the results. The advantage of a TDR is that it graphically gives you the Z0 as a function of physical position, so you can see the Z0 of the feedthrough itself, independent of the connecting cable and the termination. However, to get the necessary resolution so you can see the Z0 of a physically short line like the feedthrough, you need a high speed TDR. That's exactly the sort of job that high speed TDRs are designed to do. There's also a cost issue. The last time I checked -- some time ago, admittedly -- a new good high speed TDR was about $25k, and a good 50 GHz network analyzer was roughly $500k. This price ratio would be about the same for rental units, also.

Roy Lewallen, W7EL

686. Re: '73 Magazine'?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-07 16:31:07 UTC
From: John Walton <jdwalton@comcast.net>
Message-ID: <ytWdndhSpqPEuXHdRVn-iQ@comcast.com>
Source record: 25068

You can get CD-ROM's, however.

"Michael Black" <et472@FreeNet.Carleton.CA> wrote in message
news:cch62adjd1@freenet9.carleton.ca...
> "Terry" (tsanford@nf.sympatico.ca) writes:
> > Is the 73 magazine still published?
> > If not when did it cease?
> > Seems to be a most interesting magazine for amateur constructors.
> > For example I have a November 1966 issue that; "Is published by 73 Inc.
> > Peterborough New Hampshire. 03458 ..... "
> > Publisher Wayne Green W2NSD, Editor Paul Franson WA1CCH.
> > Many thanks for any info or comments.
> > Terry.
> >
> >
> No, the magazine died last fall (or was it the fall before?).
>
> Of course, it had changed quite a bit since 1966.
>
> Michael VE2BVW
>
>

687. Re: AD9854 DDS VFO

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-07 16:45:16 UTC
From: Duncan Munro <postmaster@duncanamps.com>
Message-ID: <61jawqwo8brf.1b6tw969dndsw.dlg@40tude.net>
Source record: 25069

On Wed, 7 Jul 2004 10:45:39 -0500, Craig Johnson wrote:

> Bob,
> "bobb" <bobb@webgogger.net> wrote in message
> news:40e6db40_3@newsfeed.slurp.net...
>> I am looking for a AD9854 DDS VFO Kit to use with a R2Pro. The AmQRP kit
> is
>> not ready as yet. are there any other kits?
>
> My AD9854 DDS VFO kit will be available soon via the AmQRP.
> More info on my web page: www.cbjohns.com/aa0zz
> or contact me off line.

Craig, some really good stuff on your pages there. In particular, I'm
looking forward to the DDS kit becoming available.

--
Duncan Munro Mï¿½KGK
http://amateur.duncanamps.com/

688. Re: '73 Magazine'?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-07 17:33:05 UTC
From: "Gary S." <Idontwantspam@net>
Message-ID: <tmcoe0t32ibquljkuda33rfl86feagu2ji@4ax.com>
Source record: 25070

On Wed, 7 Jul 2004 12:26:43 -0230, "Terry" <tsanford@nf.sympatico.ca>
wrote:

>Is the 73 magazine still published?
>If not when did it cease?
>Seems to be a most interesting magazine for amateur constructors.
>For example I have a November 1966 issue that; "Is published by 73 Inc.
>Peterborough New Hampshire. 03458 ..... "
>Publisher Wayne Green W2NSD, Editor Paul Franson WA1CCH.
>Many thanks for any info or comments.
>Terry.
>
See this article:
<http://www.stealthpegasus.com/modules.php?name=News&file=article&sid=125>

Some libraries may have it.

Ham fests may occasionally have stacks of old magazines as well.

The publisher used to sell CDs of back issues. Not sure where to find
them now.

Happy trails,
Gary (net.yogi.bear)
---
at the 51st percentile of ursine intelligence

Gary D. Schwartz, Needham, MA, USA
Please reply to: garyDOTschwartzATpoboxDOTcom

689. Re: '73 Magazine'?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-07 18:43:02 UTC
From: Terry <tsanford@nf.sympatico.ca>
Message-ID: <AwXGc.39225$JG5.793772@news20.bellglobal.com>
Source record: 25072

Many thanks to all who replied.
I found the article describing the decision to cease publishing; but
searching could not found a source for any CDs.
CDs would presumably be a very compact way to store 73 literature. Any URLS?
Thanks again. Terry.

690. Re: '73 Magazine'?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-07 18:50:04 UTC
From: Bob Liesenfeld <wb0poq@visi.com>
Message-ID: <40EC45DC.FC96248C@visi.com>
Source record: 25071

John Walton wrote:
>
> You can get CD-ROM's, however.

Source for these?

Thanks
Bob WB0POQ

691. Re: '73 Magazine'?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-07 19:52:07 UTC
From: R J Carpenter <rcarpen@erols.com>
Message-ID: <40ec6214$0$1169$61fed72c@news.rcn.com>
Source record: 25075

"Michael Black" <et472@FreeNet.Carleton.CA> wrote in message
news:cch62adjd1@freenet9.carleton.ca...
> "Terry" (tsanford@nf.sympatico.ca) writes:
> > Is the 73 magazine still published?
> > If not when did it cease?
> > Seems to be a most interesting magazine for amateur constructors.
> > For example I have a November 1966 issue that; "Is published by 73 Inc.
> > Peterborough New Hampshire. 03458 ..... "
> > Publisher Wayne Green W2NSD, Editor Paul Franson WA1CCH.
> > Many thanks for any info or comments.
> > Terry.
> >
> >
> No, the magazine died last fall (or was it the fall before?).
>
> Of course, it had changed quite a bit since 1966.

But the projects were just as technically hopelessly unreliable, IMO.

692. Re: '73 Magazine'?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-07 20:01:41 UTC
From: "Gary S." <Idontwantspam@net>
Message-ID: <egloe0la4ho5s5h4pfrl55n17cdhmlu0v0@4ax.com>
Source record: 25073

On Wed, 07 Jul 2004 13:50:04 -0500, Bob Liesenfeld <wb0poq@visi.com>
wrote:

>John Walton wrote:
>>
>> You can get CD-ROM's, however.
>
> Source for these?
>
>Thanks
>Bob WB0POQ

I remember they were offered through the magazine before they went out
of business. No sign of them on the web since then, although Wayne
Green is out there selling various books that he has written.

Happy trails,
Gary (net.yogi.bear)
---
at the 51st percentile of ursine intelligence

Gary D. Schwartz, Needham, MA, USA
Please reply to: garyDOTschwartzATpoboxDOTcom

693. Re: how to meas Zo of FT caps?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-07 20:39:22 UTC
From: averyfineman@aol.com
Message-ID: <20040707163922.27012.00000569@mb-m13.aol.com>
Source record: 25074

In article <k0tme0pdm9am0btlqtiicr3ibt0srqdc5u@4ax.com>, Bill Turner
<noway@nohow.com> writes:

>On Tue, 06 Jul 2004 21:46:37 -0500, Bob Liesenfeld <wb0poq@visi.com>
>wrote:
>
>>Curious. Very curious. From my experience, measuring the 'Zo of a
>>feedthrough cap' would be something like measuring the 'color' of a
>>miles/gallon rating of an automobile. Not an applicable unit of
>>measurement.
>
>_____
>
>Not at all. A feedthrough cap is essentially like a very short piece of
>coax. Think about it. If the capacitance is small, it could well
>"look" just like a short piece of 50 ohm coax. If the capacitance is
>large - 1000 pf or so - that's different. It would then look like a
>piece of coax with very low Zo.
>
>It all depends.

No. 10 pFd at 1 GHz has a reactance of 15.9 Ohms. That tosses
the VSWR in the bucket if that is part of a "line section."

A "small capacitor" of 100 pFd at 100 MHz has the same reactance
of 15.9 Ohms.

Feed-throughs were designed to be SHORTS on purpose...

LenAnderson@ieee.org

694. Re: '73 Magazine'?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-07 21:35:05 UTC
From: Roger Gt <not@here.net>
Message-ID: <d0_Gc.7670$6H.3136@newssvr25.news.prodigy.com>
Source record: 25076

"R J Carpenter" <rcarpen@erols.com> wrote in message
news:40ec6214$0$1169$61fed72c@news.rcn.com...
:
: But the projects were just as technically hopelessly unreliable,
IMO.
:

Fortunately we don't rely on YOUR opinion.

I built several of the projects, and they work fine! As shown
usually.

695. Re: how to meas Zo of FT caps?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-07 22:34:15 UTC
From: sdeyoreo@hotmail.com
Message-ID: <g8uoe05v48dilh9d4aapuij4e0ubea9u7s@4ax.com>
Source record: 25077

Well here's what I did: I treated it like a peice of coax. I made a fixture to hold the "feedthru" with semi-rigid coax on one side and a 50 ohm chip resistor on the other. I dropped in a short peice of coax and cal'ed to that. Then checked VSWR, was about 1.00something. Then I took out the coax, dropped in a few feedthrus and got VSWRs about 1.04 - 1.06, which works out to about 53 - 55 ohms or so.
How's that sound?

696. Re: Wide Freq Range?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-07 22:44:06 UTC
From: clifto <clifto@clifto.com>
Message-ID: <muaur1-1ss.ln1@remote.clifto.com>
Source record: 25078

Rude Dog wrote:
> I hope members of this group can help
me.ï¿½ï¿½Iï¿½amï¿½inï¿½theï¿½Armyï¿½Nationalï¿½Guard
> and I am charged with setting up emergency communications for my unit.ï¿½ï¿½I
> needï¿½ï¿½aï¿½transceiverï¿½thatï¿½hasï¿½aï¿½wideï¿½frequencyï¿½rangeï¿½thatï¿½canï¿½beï
¿½issuedï¿½to
> our civilian emergency responders for commo with our land mobile units (we
> cannot issue our military
radios).ï¿½ï¿½Iï¿½amï¿½lookingï¿½forï¿½approximatelyï¿½60ï¿½MHZ
> thru 500 MHZ.

Besides the obvious equipment limitation, there may be laws limiting what
you want to do. The Guard *might* escape prosecution, but your volunteers
might not.

I wonder if there might be military surplus gear available that fits?

--
Spammers are people who are too lazy and cowardly to rob liquor stores, but
still want to make money by stealing instead of working.
-- Morely Dotes, The Open Sourceror's Apprentice

697. Re: how to meas Zo of FT caps?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-08 00:46:50 UTC
From: Bob Liesenfeld <wb0poq@visi.com>
Message-ID: <40EC997A.3315F7FB@visi.com>
Source record: 25079

sdeyoreo@hotmail.com wrote:

> Well here's what I did: I treated it like a peice of coax. I made a
> fixture to hold the "feedthru" with semi-rigid coax on one side and a
> 50 ohm chip resistor on the other. I dropped in a short peice of coax
> and cal'ed to that. Then checked VSWR, was about 1.00something. Then I
> took out the coax, dropped in a few feedthrus and got VSWRs about 1.04
> - 1.06, which works out to about 53 - 55 ohms or so.
> How's that sound?

I could be wrong, but it >really< sounds to me that what you have is a
50 Ohm coaxial connector of some type, not a feed through capacitor.
Hey! Any chance you could 'loose' one and ship it to me? I'd love to get
a look at this critter. ;) ;)

Best 72
Bob 'POQ

698. Re: Wide Freq Range?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-08 00:57:51 UTC
From: Bellview Hospital <afropop@binkysnoty.com>
Message-ID: <2l3kg6F8a8ijU1@uni-berlin.de>
Source record: 25080

You must follow FCC rules and regs.
Depends on what your land mobile units modulation is, AM, FM, SSB, SS, FHSS
?
You can get narrowband FM radios cheap in some parts of the bands you
indicated and use "talk around"
Or just get cellphones.

"clifto" <clifto@clifto.com> wrote in message
news:muaur1-1ss.ln1@remote.clifto.com...
> Rude Dog wrote:
> > I hope members of this group can help me. I am in the Army National
Guard
> > and I am charged with setting up emergency communications for my unit. I
> > need a transceiver that has a wide frequency range that can be issued to
> > our civilian emergency responders for commo with our land mobile units
(we
> > cannot issue our military radios). I am looking for approximately 60 MHZ
> > thru 500 MHZ.
>
> Besides the obvious equipment limitation, there may be laws limiting what
> you want to do. The Guard *might* escape prosecution, but your volunteers
> might not.
>
> I wonder if there might be military surplus gear available that fits?
>
> --
> Spammers are people who are too lazy and cowardly to rob liquor stores,
but
> still want to make money by stealing instead of working.
> -- Morely Dotes, The Open Sourceror's Apprentice

699. Latest project

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-08 01:05:39 UTC
From: Bob Liesenfeld <wb0poq@visi.com>
Message-ID: <40EC9DE3.BD4C1580@visi.com>
Source record: 25081

Hi gang,
I just boxed up an RF voltmeter per LA7MI. Works well. I suppose it could be replaced with the simpler RF probe and digital voltmeter, but its nice having a dedicated unit.
BTW, I could not find a CA3140 IC so I used a National LMC 6081 single supply opamp in its place. Bonus: No offset pot needed for zeroing.
:) I can't find the URL right now, but if anyone wants the skez, I can post it as a gif file.

72
Bob WB0POQ

700. Re: how to meas Zo of FT caps?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-08 01:29:31 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10ep8rs8t2qa73e@corp.supernews.com>
Source record: 25082

Maybe one of the network analyzer experts will jump in at this point --
I'm not one. If I were your client, I certainly wouldn't be satisfied
with your methodology. But I'm not your client, so what satisfies me
isn't important. Good luck.

Roy Lewallen, W7EL

sdeyoreo@hotmail.com wrote:
> Well here's what I did: I treated it like a peice of coax. I made a
> fixture to hold the "feedthru" with semi-rigid coax on one side and a
> 50 ohm chip resistor on the other. I dropped in a short peice of coax
> and cal'ed to that. Then checked VSWR, was about 1.00something. Then I
> took out the coax, dropped in a few feedthrus and got VSWRs about 1.04
> - 1.06, which works out to about 53 - 55 ohms or so.
> How's that sound?

701. Re: Latest project

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-08 02:35:45 UTC
From: mikea@mikea.ath.cx
Message-ID: <ccibu1$u7k$4@puck.litech.org>
Source record: 25083

Bob Liesenfeld <wb0poq@visi.com> wrote:
> Hi gang,
> I just boxed up an RF voltmeter per LA7MI. Works well. I suppose it
> could be replaced with the simpler RF probe and digital voltmeter, but
> its nice having a dedicated unit.
> BTW, I could not find a CA3140 IC so I used a National LMC 6081 single
> supply opamp in its place. Bonus: No offset pot needed for zeroing.
> :) I can't find the URL right now, but if anyone wants the skez, I can
> post it as a gif file.

It's at <http://home.online.no/~la8ak/m2.htm>, about halfway down.

--
Mike Andrews
mikea@mikea.ath.cx
Tired old sysadmin

702. Re: how to meas Zo of FT caps?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-08 02:50:44 UTC
From: sdeyoreo@hotmail.com
Message-ID: <nhdpe0tc8vhcilco42p4df9p2d069qf1c2@4ax.com>
Source record: 25084

Could you suggest some way I could do it?
On Wed, 07 Jul 2004 18:29:31 -0700, Roy Lewallen <w7el@eznec.com>
wrote:

>Maybe one of the network analyzer experts will jump in at this point --
>I'm not one. If I were your client, I certainly wouldn't be satisfied
>with your methodology. But I'm not your client, so what satisfies me
>isn't important. Good luck.
>
>Roy Lewallen, W7EL
>
>sdeyoreo@hotmail.com wrote:
>> Well here's what I did: I treated it like a peice of coax. I made a
>> fixture to hold the "feedthru" with semi-rigid coax on one side and a
>> 50 ohm chip resistor on the other. I dropped in a short peice of coax
>> and cal'ed to that. Then checked VSWR, was about 1.00something. Then I
>> took out the coax, dropped in a few feedthrus and got VSWRs about 1.04
>> - 1.06, which works out to about 53 - 55 ohms or so.
>> How's that sound?

703. Re: Latest project

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-08 03:31:00 UTC
From: Bob Liesenfeld <wb0poq@visi.com>
Message-ID: <40ECBFF4.72D46D14@visi.com>
Source record: 25085

Mike Andrews wrote:

> Bob Liesenfeld <wb0poq@visi.com> wrote:
> > Hi gang,
> > I just boxed up an RF voltmeter per LA7MI.
> > :) I can't find the URL right now, but if anyone wants the skez, I can
> > post it as a gif file.
>
> It's at <http://home.online.no/~la8ak/m2.htm>, about halfway down.
>

Yup, thats it except the version I built uses a higher Z probe, so as to be able to poke around in a ckt without loading it down too much, rather than the terminated version on this page.

72
Bob

704. Re: how to meas Zo of FT caps?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-08 03:42:41 UTC
From: averyfineman@aol.com
Message-ID: <20040707234241.18097.00000121@mb-m27.aol.com>
Source record: 25086

In article <7r6pe0lap8s4ia5ppdoeaqu5tc1pltuqfb@4ax.com>, Bill Turner
<noway@nohow.com> writes:

>On 07 Jul 2004 20:39:22 GMT, averyfineman@aol.com (Avery Fineman) wrote:
>
>> No. 10 pFd at 1 GHz has a reactance of 15.9 Ohms. That tosses
>> the VSWR in the bucket if that is part of a "line section."
>
>_____
>
>A section of coax has both capacitance and inductance. Together, they
>form the Zo of the line. You are quoting only capacitance while
>ignoring the inductance.

"Ignoring?" No. Spare me a lecture. 10 puffs IS a "small
capacitor. You were not talking "inductance." 10 pFd IS a
15.9 Ohm reactance at 1 GHz. That's also a small reactive
shunt on this mythical "line section."

>I grant you, a typical feedthrough capacitor is designed with large
>capacitance and is used for filtering, but that does not preclude one
>from being designed to "look" like a piece of coax if the designer
>wishes. And that was the original question.

Sorry, no. The original question concerned testing of what
LOOKED LIKE "feedthrough capacitors." The tester was thinking
of "treating it like a small section of transmission line."

Based on the response of actual testings, such as very low
VSWR measured, the gadgets are probably just wire feed-
throughs intended for something like passing through a
hermetic seal. Those would have very little capacitance and
thus would have very little discontinuity...the VSWR would not
be raised very much.

If those "feedtrhoughs" had really been capacitors, then, in all
probability, they would have tested as capacitances on a bridge
such as a 1 MHz bridge. A handheld C or L/C meter could have
read that on a 1 nFd or 10 nFd scale.

Without further ado, based on what was written by the person
who has the devices, my opinion is that they are just wire feed-
throughs with minimum capacitance and the inductance of a very
short piece of straight wire. Those MIGHT work as "line sections"
going through a hermetic seal wall of something...but not a very
practical way to run a transmission line through that wall.

Feed-through CAPACITORS were NEVER rated by "characteristic impedance" (Zo). Not in 1964, not in 2004, not in years between.

Wire feedthroughs for sealing-type bulkheads are seldom rated for anything but current carrying capacity and withstanding or flash-over voltage. Those have just conductors going through with minimal capacity to "ground" and minimal inductance straight through.

LenAnderson@ieee.org

705. Hot etchant

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-08 03:44:43 UTC
From: Bob Liesenfeld <wb0poq@visi.com>
Message-ID: <40ECC32B.1817D77B@visi.com>
Source record: 25087

Me again gang,
I've been torturing myself this evening by drawing wee little lines on scraps of blank pc board material to make 'headers' for some surface mount ICs. In the past I've had the usual troubles with the resist (black Sharpie) being etched away before the rest of the board was done. I suppose most of us know that warmed etchant works faster than room temperature juice.
In the past I have warmed my ferric chloride in the microwave. Well tonight I got a bit carried away. ;) I put about 4oz of juice in a plastic cup and nuked it for a full minute. Holy smokes! That stuff was *steaming*! So....."plop" goes my little homebrew surfboard into the brew. That puppy was fully etched in less than a minute!
The microwave seems to still make popcorn and I am not in a coma (yet), so I guess I will call it a success. BTW, the Sharpie ink survived nicely.

72
Bob WB0POQ

706. Re: how to meas Zo of FT caps?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-08 04:16:22 UTC
From: Wes <n7ws@_yahoo.com>
Message-ID: <edipe01p9d9j6tva42jjkpu433koem28qq@4ax.com>
Source record: 25088

On Wed, 07 Jul 2004 18:34:15 -0400, sdeyoreo@hotmail.com wrote:

|Well here's what I did: I treated it like a peice of coax. I made a
|fixture to hold the "feedthru" with semi-rigid coax on one side and a
|50 ohm chip resistor on the other. I dropped in a short peice of coax
|and cal'ed to that. Then checked VSWR, was about 1.00something. Then I
|took out the coax, dropped in a few feedthrus and got VSWRs about 1.04
|- 1.06, which works out to about 53 - 55 ohms or so.
| How's that sound?

Like you don't know what you're doing.

Your DUT is a two-port device. If you really have a network analyzer,
why aren't you using it to measure the device as a two port?

707. magic band and baby monitors

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-08 04:21:03 UTC
From: pdrunen@aol.com
Message-ID: <20040708002103.05811.00001380@mb-m05.aol.com>
Source record: 25089

Hi Group,

I have a Icom 706 and dipole up for the 6 meter band. In scanning the band just before 50MHz I hear a few baby monitors.

Assuming that I am running 100 watts and the dipole on SSB, will the parents hear my signal or do baby monitor manufacturers know that hams are just above this band and put filtering on the input?

If so, I guess that I could switch modes to FM and talk to them. I see a simple modifications for the rig to allow out of band transmission but I am a bit lazy to open the rig up and do it. I would like to get on the new 60meter band which the 706 gxII does not have as open transmit.

708. Re: how to meas Zo of FT caps?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-08 04:27:25 UTC
From: clifto <clifto@clifto.com>
Message-ID: <d2vur1-3at.ln1@remote.clifto.com>
Source record: 25090

Bill Turner wrote:
> But think about this in relation to your statement: We both know of at
> least one person (and his boss) who wants to know the Zo of a
> feedthrough capacitor. Do you really think in forty years there has not
> been ONE OTHER person who might have actually designed such a thing?

I've worked with at least ten "engineers" and dozens of bosses who,
given a similar bag of feedthroughs containing a slip of paper saying
"RPM = 2400 +- 1%", would work for a week designing a test to verify or
disprove the spec.

--
Spammers are people who are too lazy and cowardly to rob liquor stores, but
still want to make money by stealing instead of working.
-- Morely Dotes, The Open Sourceror's Apprentice

709. Re: magic band and baby monitors

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-08 05:03:41 UTC
From: farinasinsurance@sbcglobal.net
Message-ID: <NA4Hc.7824$Ko6.100@newssvr25.news.prodigy.com>
Source record: 25091

"PDRUNEN" <pdrunen@aol.com> wrote in message
news:20040708002103.05811.00001380@mb-m05.aol.com...
> Hi Group,
>
> I have a Icom 706 and dipole up for the 6 meter band. In scanning the
band
> just before 50MHz I hear a few baby monitors.
>
> Assuming that I am running 100 watts and the dipole on SSB, will the
parents
> hear my signal or do baby monitor manufacturers know that hams are just
above
> this band and put filtering on the input?
>
> If so, I guess that I could switch modes to FM and talk to them. I see a
> simple modifications for the rig to allow out of band transmission but I
am a
> bit lazy to open the rig up and do it. I would like to get on the new
60meter
> band which the 706 gxII does not have as open transmit.
>
Making growling sounds at 2:00AM on 49.830,49.845,49.860.49.875 and 49.890
Is a total riot! The sound of a wild boar, a rabid dog will do just fine.
Play it for about 10 seconds, then unkey and wait for the circus on the
other end.

710. Re: how to meas Zo of FT caps?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-08 05:20:00 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10epmc2i4lsb08e@corp.supernews.com>
Source record: 25092

sdeyoreo@hotmail.com wrote:
> Could you suggest some way I could do it?

I did, a couple of postings ago -- using a TDR. Guess my posting hasn't made it to your server yet. If it doesn't show up soon, you should be able to find it on groups.google.com.

Roy Lewallen, W7EL

711. Re: Hot etchant

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-08 07:55:52 UTC
From: Leon Heller <leon_heller@hotmail.com>
Message-ID: <40ecfe09$0$6443$cc9e4d1f@news-text.dial.pipex.com>
Source record: 25093

"Bob Liesenfeld" <wb0poq@visi.com> wrote in message
news:40ECC32B.1817D77B@visi.com...
> Me again gang,
> I've been torturing myself this evening by drawing wee little lines on
> scraps of blank pc board material to make 'headers' for some surface
> mount ICs. In the past I've had the usual troubles with the resist
> (black Sharpie) being etched away before the rest of the board was
> done. I suppose most of us know that warmed etchant works faster than
> room temperature juice.
> In the past I have warmed my ferric chloride in the microwave. Well
> tonight I got a bit carried away. ;) I put about 4oz of juice in a
> plastic cup and nuked it for a full minute. Holy smokes! That stuff
> was *steaming*! So....."plop" goes my little homebrew surfboard into
> the brew. That puppy was fully etched in less than a minute!
> The microwave seems to still make popcorn and I am not in a coma (yet),
> so I guess I will call it a success. BTW, the Sharpie ink survived
> nicely.

I just put the plastic container with the etchant and PCB in a larger container partly filled with boiling water. Etching usually takes about 5 minutes, with continuous agitation.

73, Leon

712. Help with A.R.R.L 1960 Handbook Project

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-08 08:34:25 UTC
From: ronayling@hotmail.com
Message-ID: <921a5e96.0407080034.51e13732@posting.google.com>
Source record: 25094

Hi, at the moment I'm refurbishing an old radio that was originally built from a project in the 1960 ARRL Handbook Page 119 The 2*4+1 Superhet, it is a superb design and works really well for such a simple receiver, is it possible to find out who designed it? I can't find any reference to that in the project, I'm writing up the refurbishment and would like any info on the original design..

713. Re: Wide Freq Range?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-08 08:39:41 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <hL7Hc.12335$eO.4263@edtnps89>
Source record: 25095

Drake, Signal, Collins and Harris all have units that can do from
DC-Daylight trancieive.

--
Gregg
It's probably useful, even if it can't be SPICE'd
http://geek.scorpiorising.ca

714. Re: magic band and baby monitors

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-08 08:41:27 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <XM7Hc.12343$eO.9923@edtnps89>
Source record: 25096

Behold, farinasinsurance signalled from keyed 4-1000A filament:

> Making growling sounds at 2:00AM on 49.830,49.845,49.860.49.875 and
> 49.890 Is a total riot! The sound of a wild boar, a rabid dog will do
> just fine. Play it for about 10 seconds, then unkey and wait for the
> circus on the other end.

LOL! This sounds like fun :-)

--
Gregg
It's probably useful, even if it can't be SPICE'd
http://geek.scorpiorising.ca

715. Re: Hot etchant

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-08 09:42:20 UTC
From: "Airy R. Bean" <ariy.r.bean@lycos.co.uk>
Message-ID: <2l4jniF8ksvtU1@uni-berlin.de>
Source record: 24998

Long before the days of Health & Safety In The Workplace,
I worked in the research dept attached to a power station
and we used to boil the FC solution in a saucepan on the
little mains cooker that we had.

Insofar as the saucepan was aluminium (aluminum to the
non-English-speaking Yanks), I am surprise that there was
any "strength" left in the solution to etch the copper!

(Having made the mistake of using an aluminium stirrer in
my own etchings!)

"Bob Liesenfeld" <wb0poq@visi.com> wrote in message
news:40ECC32B.1817D77B@visi.com...
> I suppose most of us know that warmed etchant works faster than
> room temperature juice.

716. Re: '73 Magazine'?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-08 09:43:45 UTC
From: Marty <NOSPAM_vk2umj@yahoo.com.au_NOSPAM>
Message-ID: <40ed174a_1@news.iprimus.com.au>
Source record: 24997

"R J Carpenter" <rcarpen@erols.com> wrote in message
news:40ec6214$0$1169$61fed72c@news.rcn.com...
>
> "Michael Black" <et472@FreeNet.Carleton.CA> wrote in message
> news:cch62adjd1@freenet9.carleton.ca...
> > "Terry" (tsanford@nf.sympatico.ca) writes:
> > > Is the 73 magazine still published?
> > > If not when did it cease?
> > > Seems to be a most interesting magazine for amateur constructors.
> > > For example I have a November 1966 issue that; "Is published by 73
Inc.
> > > Peterborough New Hampshire. 03458 ..... "
> > > Publisher Wayne Green W2NSD, Editor Paul Franson WA1CCH.
> > > Many thanks for any info or comments.
> > > Terry.
> > >
> > >
> > No, the magazine died last fall (or was it the fall before?).
> >
> > Of course, it had changed quite a bit since 1966.
>
> But the projects were just as technically hopelessly unreliable, IMO.

Sure it was the projects at fault, or the skills of the constructor???

The best projects in the world aren't much good in the hands of a
technically hopelessly unreliable constructor....

IMHO

717. Re: Wide Freq Range?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-08 09:45:39 UTC
From: "Airy R. Bean" <ariy.r.bean@lycos.co.uk>
Message-ID: <2l4jniF8ksvtU2@uni-berlin.de>
Source record: 24999

Considering the murderous and unlawful way in which
the Yank armed farces besport themselves in Iraq and
in Guantanamo bay - resign immediately!

"Rude Dog" <snjr.spam@charter.net> wrote in message
news:10eo89b6kp7sd44@corp.supernews.com...
> I hope members of this group can help me. I am in the Army National Guard

718. Re: Hot etchant

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-08 10:46:21 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <d99qe05446cphh99bfei0cetq1at91ph79@4ax.com>
Source record: 25000

On Thu, 8 Jul 2004 08:55:52 +0100, "Leon Heller"
<leon_heller@hotmail.com> wrote:

>I just put the plastic container with the etchant and PCB in a larger
>container partly filled with boiling water. Etching usually takes about 5
>minutes, with continuous agitation.

I find that faster etching = cleaner etching, too, with less risk of
the pen marks getting washed away and exposing areas you *don't* want
etched. Maybe there's a point where this rule breaks down, but I
haven't come across it yet and I use a microwave, too. I'm sure my
wife wouldn't approve, but since I don't have one, I can do as I damn
well please! :->
--

"What is now proved was once only imagin'd." - William Blake, 1793.

719. sell

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-08 11:56:45 UTC
From: Carl Domanico <vze2686b@verizon.net>
Message-ID: <1EaHc.10985$Xb4.9357@nwrdny02.gnilink.net>
Source record: 25001

Hi I have a Kenwood TM-741A Tri-Band Mobile Radio

It Has The 144 mhz Module and the 440 mhz Module Installed..The 144 mhz module is not functioning...The 440 mhz works fine and so does the rest of the radio...complete with owner/ operator manual...

Make offer...

Carl

N2MFW

720. Re: magic band and baby monitors

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-08 13:27:39 UTC
From: bg998@FreeNet.Carleton.CA
Message-ID: <ccji4b$o5n$1@freenet9.carleton.ca>
Source record: 25002

(farinasinsurance@sbcglobal.net) writes:
>>
> Making growling sounds at 2:00AM on 49.830,49.845,49.860.49.875 and 49.890
> Is a total riot! The sound of a wild boar, a rabid dog will do just fine.
> Play it for about 10 seconds, then unkey and wait for the circus on the
> other end.
>

You have done this?

721. 7213 tube data sheet

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-08 14:19:20 UTC
From: WB0CTE <letourneau@wiktel.com>
Message-ID: <IJcHc.2306$m3.124187@news7.onvoy.net>
Source record: 25003

I have the data sheet for this tube that Paul was looking for. Tryed to email but was rejected.
Send me an email if you want me to email it to you. (with your correct email address)
Wayne WB0CTE

722. Re: Help with A.R.R.L 1960 Handbook Project

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-08 15:02:04 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10eqofbeh4vac43@corp.supernews.com>
Source record: 25004

Ron wrote:

> Hi, at the moment I'm refurbishing an old radio that was originally
> built from a project in the 1960 ARRL Handbook Page 119 The 2*4+1
> Superhet, it is a superb design and works really well for such a
> simple receiver, is it possible to find out who designed it? I can't
> find any reference to that in the project, I'm writing up the
> refurbishment and would like any info on the original design..

Have you contacted ARRL? It was probably designed by a staffer. I
prefer it when they credit the designs or reference the original article.

I have the '64 handbook and have eyed that design myself.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

723. Re: Wide Freq Range?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-08 15:32:54 UTC
From: nospam@nowhere.nil
Message-ID: <mkpqe05opvi7001cbm7220b5d8eh7rb6ln@4ax.com>
Source record: 25005

Ignore the negative responses.
Thank you for your service!!

As for the previous poster with a burr up his .....
>Considering the murderous and unlawful way in which
>the Yank armed farces besport themselves in Iraq and
>in Guantanamo bay - resign immediately!

War is hell, but the people responsible for any unlawful acts are
being proscuted and punshed.
Making a few prisoners embarased pales in comparision to
r a mass grave with 30K people in it, or
slowly hacking someones head off with a knife.

Any survey of Iraqi citizens shows that the vast Majority are truly
grateful for the removal of Sadam. We should be proud.

724. Re: Wide Freq Range?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-08 15:41:42 UTC
From: "Airy R. Bean" <ariy.r.bean@lycos.co.uk>
Message-ID: <2l58ehF8rnvkU1@uni-berlin.de>
Source record: 25006

With attitudes like yours, it is no wonder that
the brilliant military victory of the attack by Al Q'Aeda
on the World Trade Centre took place, perhaps?

A military attack as brilliant as was the attack by the
Japanese on Pearl Harbour. What a pity the Japanese
were too cautious to send in the second wave?

<nospam@nowhere.nil> wrote in message
news:mkpqe05opvi7001cbm7220b5d8eh7rb6ln@4ax.com...
> Ignore the negative responses.
> Thank you for your service!!
> As for the previous poster with a burr up his .....
> >Considering the murderous and unlawful way in which
> >the Yank armed farces besport themselves in Iraq and
> >in Guantanamo bay - resign immediately!
> War is hell, but the people responsible for any unlawful acts are
> being proscuted and punshed.
> Making a few prisoners embarased pales in comparision to
> r a mass grave with 30K people in it, or
> slowly hacking someones head off with a knife.
> Any survey of Iraqi citizens shows that the vast Majority are truly
> grateful for the removal of Sadam. We should be proud.

725. Re: Wide Freq Range?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-08 16:23:02 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10eqt74ml9pqpc9@corp.supernews.com>
Source record: 25007

Airy R. Bean wrote:

> Considering the murderous and unlawful way in which
> the Yank armed farces besport themselves in Iraq and
> in Guantanamo bay - resign immediately!
>
> "Rude Dog" <snjr.spam@charter.net> wrote in message
> news:10eo89b6kp7sd44@corp.supernews.com...
>
>>I hope members of this group can help me. I am in the Army National Guard
>
>
>
The wisdom of the Iraq war will only be revealed by history (and maybe
not even then), but the bulk of the troops are risking their lives for
their country and the Iraqis and are therefore, ipso facto, heroes.

Our fearless president, who "served" in a time of war but never saw real
combat, who got to be a jet jockey in the national guard at a time when
any 22-year-old with another daddy would be flying jets over Vietnam,
who is happily risking the lives of other's sons and daughters while his
children and nieces and nephews, and those of his advisers, all stay
home safe and sound, and who ignored the advise of the one man in his
cabinet with actual military experience, is another matter.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

726. Re: Wide Freq Range?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-08 16:49:47 UTC
From: "Airy R. Bean" <ariy.r.bean@lycos.co.uk>
Message-ID: <2l5cheF8m958U1@uni-berlin.de>
Source record: 25009

The wisdom, or, rather, the complete lack of it, is apparent now.
Saddam Hussein has done some wicked things, almost as wicked as
Ronnie Reagan in Nicaragua, but Hussein was a paper tiger at the
end, controlled by UN Sanctions. There was no point to the war, and
just like the attack on the World Trade Centre by Al Q'Aeda, was
initiated by religious loonies, Blair, Windsor and Bush. Many people have
died needlessly to suit the political ambitions of this Terrible Trio.

The troops are not fighting for their own country - they are illegal
invaders
no different to the behaviour of the Germans and Japanese in the 1940's.
Nobody who goes around the World with the specific intention of attacking
and killing his fellow man is a hero - something left behind on the
pavement by a passing dog, yes, but a hero? No way!

The troops are fighting for the Iraquis? With the number of attacks on
them today? Bwahahahahahahahahahahahaaaaa!

"Tim Wescott" <tim@wescottnospamdesign.com> wrote in message
news:10eqt74ml9pqpc9@corp.supernews.com...
> The wisdom of the Iraq war will only be revealed by history (and maybe
> not even then), but the bulk of the troops are risking their lives for
> their country and the Iraqis and are therefore, ipso facto, heroes.

727. PLL for VHF receiver (see attached files)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-08 16:53:10 UTC
From: Damien Teney <damien.teney@sobelairva.net>
Message-ID: <JpidnUAnn4hl5nDdRVn-ig@scarlet.biz>
Source record: 25008

Hello everybody,
I have build a VHF receiver for the airband, published in the magazine Elektor a few years ago, and I've managed to build a PLL to improve it. The PLL is build on another PCB, that is connected to the main circuit, and that replaces the original potmeter, in order to choose the frequency. The PLL is able to lock on the right frequency, but the receiver is a lot more noisy, and it seems really less sensitive with the PLL. See these sketches, I think it is better than a long explaination.

http://www.mcarsweb.com/_divers/1sketch.jpg
http://www.mcarsweb.com/_divers/2sketch.jpg
http://www.mcarsweb.com/_divers/3sketch.jpg

I have also included the schematics of the VCO (with the buffering transistor, T4), and the basic schematic of the PLL (taken from a Motorola application note). I don't know where the problem could come from. I would say from the bad buffering of the VCO output, but I don't see how it could be improved.

http://www.mcarsweb.com/_divers/4VCO.jpg
http://www.mcarsweb.com/_divers/5PLL.jpg

I'm really getting mad with this problem ! So thanks to all of you who will answer ;-)

728. Re: Wide Freq Range?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-08 17:12:32 UTC
From: Roger Gt <not@here.net>
Message-ID: <4gfHc.88956$5x7.29214@newssvr29.news.prodigy.com>
Source record: 25010

'Airy R. Bean" <ariy.r.bean@lycos.co.uk> wrote in message
news:2l5cheF8m958U1@uni-berlin.de...
: The wisdom, or, rather, the complete lack of it, is apparent
now.
: Saddam Hussein has done some wicked things, almost as wicked as
: Ronnie Reagan in Nicaragua, but Hussein was a paper tiger at the
: end, controlled by UN Sanctions. There was no point to the war,
and
: just like the attack on the World Trade Centre by Al Q'Aeda, was
: initiated by religious loonies, Blair, Windsor and Bush. Many
people have
: died needlessly to suit the political ambitions of this Terrible
Trio.
:
: The troops are not fighting for their own country - they are
illegal
: invaders
: no different to the behaviour of the Germans and Japanese in the
1940's.
: Nobody who goes around the World with the specific intention of
attacking
: and killing his fellow man is a hero - something left behind on
the
: pavement by a passing dog, yes, but a hero? No way!
:
: The troops are fighting for the Iraquis? With the number of
attacks on
: them today? Bwahahahahahahahahahahahahaaaaa!

This has been forwarded to the department of homeland security to
determine if the writer is a threat to this nation.
Roger Gt

729. Re: Hot etchant

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-08 17:30:50 UTC
From: John Walton <jdwalton@comcast.net>
Message-ID: <Ov2dnf6LaZhKHnDdRVn-hg@comcast.com>
Source record: 25011

Ya know, there are freeware programs out there which will prevent you from going blind -- Eagle is pretty good.

Being that it's the summer you can use a positive-resist photo-sensitive board -- sunlight has plenty of UV .

I've heard that the peroxide etchants are very good, very clean, but haven't tried them myself.
Jack

"Bob Liesenfeld" <wb0poq@visi.com> wrote in message news:40ECC32B.1817D77B@visi.com...
> Me again gang,
> I've been torturing myself this evening by drawing wee little lines on
> scraps of blank pc board material to make 'headers' for some surface
> mount ICs. In the past I've had the usual troubles with the resist
> (black Sharpie) being etched away before the rest of the board was
> done. I suppose most of us know that warmed etchant works faster than
> room temperature juice.
> In the past I have warmed my ferric chloride in the microwave. Well
> tonight I got a bit carried away. ;) I put about 4oz of juice in a
> plastic cup and nuked it for a full minute. Holy smokes! That stuff
> was *steaming*! So....."plop" goes my little homebrew surfboard into
> the brew. That puppy was fully etched in less than a minute!
> The microwave seems to still make popcorn and I am not in a coma (yet),
> so I guess I will call it a success. BTW, the Sharpie ink survived
> nicely.
>
> 72
> Bob WB0POQ
>

730. Re: Wide Freq Range?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-08 17:44:25 UTC
From: "Airy R. Bean" <ariy.r.bean@lycos.co.uk>
Message-ID: <2l5fknF91m4gU1@uni-berlin.de>
Source record: 25012

The biggest threat to a democratic nation is the suppression
of viewpoints that do not agree with the _CURRENT_
incumbents of government.

Try the Brit Home Office.

"Roger Gt" <not@here.net> wrote in message
news:4gfHc.88956$5x7.29214@newssvr29.news.prodigy.com...
> This has been forwarded to the department of homeland security to
> determine if the writer is a threat to this nation.

731. Re: Wide Freq Range?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-08 17:56:12 UTC
From: tdonaly@aol.com
Message-ID: <20040708135612.25527.00001321@mb-m29.aol.com>
Source record: 25013

Airy R. Bean wrote,
>
>The wisdom, or, rather, the complete lack of it, is apparent now.
>Saddam Hussein has done some wicked things, almost as wicked as
>Ronnie Reagan in Nicaragua, but Hussein was a paper tiger at the
>end, controlled by UN Sanctions. There was no point to the war, and
>just like the attack on the World Trade Centre by Al Q'Aeda, was
>initiated by religious loonies, Blair, Windsor and Bush. Many people have
>died needlessly to suit the political ambitions of this Terrible Trio.
>
>The troops are not fighting for their own country - they are illegal
>invaders
>no different to the behaviour of the Germans and Japanese in the 1940's.
>Nobody who goes around the World with the specific intention of attacking
>and killing his fellow man is a hero - something left behind on the
>pavement by a passing dog, yes, but a hero? No way!
>
>The troops are fighting for the Iraquis? With the number of attacks on
>them today? Bwahahahahahahahahahahahaaaaa!
>

The British pot calling the American kettle black.
Tom Donaly, KA6RUH

732. Re: Wide Freq Range?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-08 17:57:12 UTC
From: "Airy R. Bean" <ariy.r.bean@lycos.co.uk>
Message-ID: <2l5gc8F91d78U1@uni-berlin.de>
Source record: 25014

The Brits do not support the religious loony Blair in his
thirst for blood.

"Tdonaly" <tdonaly@aol.com> wrote in message
news:20040708135612.25527.00001321@mb-m29.aol.com...
> Airy R. Bean wrote,
> >The wisdom, or, rather, the complete lack of it, is apparent now.
> >Saddam Hussein has done some wicked things, almost as wicked as
> >Ronnie Reagan in Nicaragua, but Hussein was a paper tiger at the
> >end, controlled by UN Sanctions. There was no point to the war, and
> >just like the attack on the World Trade Centre by Al Q'Aeda, was
> >initiated by religious loonies, Blair, Windsor and Bush. Many people have
> >died needlessly to suit the political ambitions of this Terrible Trio.
> The British pot calling the American kettle black.

733. Re: Wide Freq Range?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-08 18:03:23 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10er33bcad8sl6c@corp.supernews.com>
Source record: 25015

Airy R. Bean wrote:

> The wisdom, or, rather, the complete lack of it, is apparent now.
> Saddam Hussein has done some wicked things, almost as wicked as
> Ronnie Reagan in Nicaragua, but Hussein was a paper tiger at the
> end, controlled by UN Sanctions. There was no point to the war, and
> just like the attack on the World Trade Centre by Al Q'Aeda, was
> initiated by religious loonies, Blair, Windsor and Bush. Many people have
> died needlessly to suit the political ambitions of this Terrible Trio.
>
> The troops are not fighting for their own country - they are illegal
> invaders
> no different to the behaviour of the Germans and Japanese in the 1940's.
> Nobody who goes around the World with the specific intention of attacking
> and killing his fellow man is a hero - something left behind on the
> pavement by a passing dog, yes, but a hero? No way!
>
> The troops are fighting for the Iraquis? With the number of attacks on
> them today? Bwahahahahahahahahahahahahaaaaa!
>
> "Tim Wescott" <tim@wescottnospamdesign.com> wrote in message
> news:10eqt74ml9pqpc9@corp.supernews.com...
>
>>The wisdom of the Iraq war will only be revealed by history (and maybe
>>not even then), but the bulk of the troops are risking their lives for
>>their country and the Iraqis and are therefore, ipso facto, heroes.
>
>
>
Thank you, Jane Fonda. Will you be spitting on your own people when
they come home? You could look at some old films of ordinary soldiers
coming home from Vietnam and their reception from anti-war protesters
for guidance on how to do it.

Don't pay any attention to the interviews with the anti-war protesters
20 years later, when they were expressing guilt and deep regret at their
actions -- that might erode you supreme self confidence, and make you
see yourself for being as mindlessly extremist as the whole Bush crew.

There's got to be a special place in hell for fundamentalists of all
stripes...

--

Tim Wescott
Wescott Design Services

http://www.wescottdesign.com

734. Re: how to meas Zo of FT caps?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-08 18:05:51 UTC
From: tdonaly@aol.com
Message-ID: <20040708140551.25527.00001322@mb-m29.aol.com>
Source record: 25016

Wes wrote,
>Message-id: <edipe01p9d9j6tva42jjkpu433koem28qq@4ax.com>
>
>On Wed, 07 Jul 2004 18:34:15 -0400, sdeyoreo@hotmail.com wrote:
>
>|Well here's what I did: I treated it like a peice of coax. I made a
>|fixture to hold the "feedthru" with semi-rigid coax on one side and a
>|50 ohm chip resistor on the other. I dropped in a short peice of coax
>|and cal'ed to that. Then checked VSWR, was about 1.00something. Then I
>|took out the coax, dropped in a few feedthrus and got VSWRs about 1.04
>|- 1.06, which works out to about 53 - 55 ohms or so.
>| How's that sound?
>
>Like you don't know what you're doing.
>
>Your DUT is a two-port device. If you really have a network analyzer,
>why aren't you using it to measure the device as a two port?
>
>
>

Is two port theory even being taught in engineering schools these days?
73,
Tom Donaly, KA6RUH

735. Announcing 'hifi-am', to discuss High Fidelity AM tuners and hobbyist transmitters

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-08 18:48:31 UTC
From: Jon Noring <jon@noring.name>
Message-ID: <oo5re0d7ldo65o1a4uj3j2unonnjeogn7f@4ax.com>
Source record: 25017
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio

[No readable article body recovered]

736. Announcing 'hifi-am', to discuss High Fidelity AM tuners and hobbyist transmitters

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-08 18:49:29 UTC
From: Jon Noring <jon@noring.name>
Message-ID: <bq5re0p3nog28n89vtnp4lc04eimlp14op@4ax.com>
Source record: 25018
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio

Hello,

I've created a discussion group (mailing list) to discuss high fidelity AM tuners and hobbyist transmitters. Appended below is the more detailed group description.

To subscribe to this group, either go to the group home page (at Yahoo) and subscribe there (you will need a YahooID):

http://groups.yahoo.com/group/hifi-am/

Or, if you don't have a YahooID, send a blank email to:

hifi-am-subscribe@yahoogroups.com

Looking forward to seeing you there!

Jon Noring

****

Group Description for hifi-am:
==========

The purpose of hifi-am is to explore the possibilities of high fidelity AM tuners and hobbyist transmitters for medium-wave (or better known as the broadcast band, appr. 520 to 1720 khz.)

Although most commercial AM broadcasts are definitely not high fidelity (due to various factors including, in many countries, audio bandwidth restrictions), there are nevertheless a few commercial stations which broadcast with audio quality approaching high fidelity. For example, in Australia, because the number of stations is fewer and the country quite large, many stations broadcast with quite wide audio bandwidth, approaching 15 khz.

There is steady growth in interest (in the U.S.) for non-licensed hobbyist broadcasting in the BCB (per FCC "Part 15"), which is restricted to 100 milliwatts and a three meter antenna (among a few other minor restrictions). With a high efficiency antenna, it is possible for such neighborhood broadcasting to be heard about 1/2 to 1 mile from the transmitter. There are quite a few progressive and alternative stations broadcasting this way. For a wonderful example, see Radio KMTZ.

More importantly, it appears there is no specific restriction on audio bandwidth for Part 15 transmissions. Thus, if this is true, the broadcasts can approach high fidelity (15 to 20 khz audio bandwidth.)

Although discussion can focus on the general topic, it is hoped this group will catalyze the development of hobbyist kits for high fidelity AM tuners (digital, solid state, and tube) and for high fidelity low-power (Part 15) AM transmitters. It should be fun to consider the many possibilities.

737. Re: Wide Freq Range?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-08 18:50:05 UTC
From: Roger Gt <not@here.net>
Message-ID: <xHgHc.88995$vc.80407@newssvr29.news.prodigy.com>
Source record: 25019

"Airy R. Bean" <ariy.r.bean@lycos.co.uk> wrote in message
news:2l5fknF91m4gU1@uni-berlin.de...
: The biggest threat to a democratic nation is the suppression
: of viewpoints that do not agree with the _CURRENT_
: incumbents of government.
:
: Try the Brit Home Office.
:
: "Roger Gt" <not@here.net> wrote in message
: news:4gfHc.88956$5x7.29214@newssvr29.news.prodigy.com...
: > This has been forwarded to the department of homeland security
to
: > determine if the writer is a threat to this nation.

Ah-Ha, he's also a top poster!
The DHS will contact them.
Advocacy is not a viewpoint. You went a long way beyond
disagreement!
You don't vote here! Your tone denotes advocacy.

The DHS has requested that we report anything that MIGHT indicate
a threat. Just doing my duty. Maybe you will think before you
speak.
"Loose lips sink ships"

BTW: American is a Republic, NOT a Democracy!

738. Re: Wide Freq Range?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-08 19:02:41 UTC
From: "Airy R. Bean" <ariy.r.bean@lycos.co.uk>
Message-ID: <2l5k72F8taibU1@uni-berlin.de>
Source record: 25020

One wonders why Yankland fought in WWII. Your description
of the DHS makes it seek like the SS of today.

"Roger Gt" <not@here.net> wrote in message
news:xHgHc.88995$vc.80407@newssvr29.news.prodigy.com...
> "Airy R. Bean" <ariy.r.bean@lycos.co.uk> wrote in message
> news:2l5fknF91m4gU1@uni-berlin.de...
> : The biggest threat to a democratic nation is the suppression
> : of viewpoints that do not agree with the _CURRENT_
> : incumbents of government.
> : Try the Brit Home Office.
> : "Roger Gt" <not@here.net> wrote in message
> : news:4gfHc.88956$5x7.29214@newssvr29.news.prodigy.com...
> : > This has been forwarded to the department of homeland security
> to
> : > determine if the writer is a threat to this nation.
> Ah-Ha, he's also a top poster!
> The DHS will contact them.
> Advocacy is not a viewpoint. You went a long way beyond
> disagreement!
> You don't vote here! Your tone denotes advocacy.
> The DHS has requested that we report anything that MIGHT indicate
> a threat. Just doing my duty. Maybe you will think before you
> speak.
> "Loose lips sink ships"
> BTW: American is a Republic, NOT a Democracy!

739. Re: Wide Freq Range?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-08 19:07:05 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10er6qosafk900a@corp.supernews.com>
Source record: 25021

Roger Gt wrote:

> 'Airy R. Bean" <ariy.r.bean@lycos.co.uk> wrote in message
> news:2l5cheF8m958U1@uni-berlin.de...
> : The wisdom, or, rather, the complete lack of it, is apparent
> now.
> : Saddam Hussein has done some wicked things, almost as wicked as
> : Ronnie Reagan in Nicaragua, but Hussein was a paper tiger at the
> : end, controlled by UN Sanctions. There was no point to the war,
> and
> : just like the attack on the World Trade Centre by Al Q'Aeda, was
> : initiated by religious loonies, Blair, Windsor and Bush. Many
> people have
> : died needlessly to suit the political ambitions of this Terrible
> Trio.
> :
> : The troops are not fighting for their own country - they are
> illegal
> : invaders
> : no different to the behaviour of the Germans and Japanese in the
> 1940's.
> : Nobody who goes around the World with the specific intention of
> attacking
> : and killing his fellow man is a hero - something left behind on
> the
> : pavement by a passing dog, yes, but a hero? No way!
> :
> : The troops are fighting for the Iraquis? With the number of
> attacks on
> : them today? Bwahahahahahahahahahahahaaaaa!
>
>
> This has been forwarded to the department of homeland security to
> determine if the writer is a threat to this nation.
> Roger Gt
>
>
Just to make sure that I'm universally reviled, I must point out that
he's a jerk, not a threat. People who want to abandon our hard-won
freedoms in exchange for the illusory "security" that comes from
right-wing totalitarianism are threats as well as jerks (see John
Ashcroft and Donald Rumsfeld for examples).

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

740. Strange Redifon highlevel mixer (+20dBm)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-08 19:17:57 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <427re0p9vnfe123ccu2g2351lrgds7rg7o@4ax.com>
Source record: 25022

LA7MI Stein Torp writes that he has tested a mixer which was used in a Redifon mobile transceiver in the late 60's, but using modern components. The input transformer is a pentofilar wound type with 5x 3turns (0.25mm enam cu wire), see drawing for the type of two hole core used in the transformers.T2 and T3 are wound with 2x 3turns 0.3mm wire. With input on 80m and 10.7MHz IF (LO = 14.5MHz) 3rd order IP on the input was measured to +20dB, and the strange is that output termination is not critical at all. It is possible to terminate it with an xtal filter and still obtain +20dBm, which is not at all possible with a ringmodulator. Measured the 1dB compression point to +10dBm, see http://www.noding.com/la8ak/12345/n16.htm

73
Jan-Martin
LA8AK

J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

741. Re: Wide Freq Range?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-08 19:38:01 UTC
From: Roger Gt <not@here.net>
Message-ID: <tohHc.89033$it.31775@newssvr29.news.prodigy.com>
Source record: 25023

"Airy R. Bean" <ariy.r.bean@lycos.co.uk> wrote in message
news:2l5k72F8taibU1@uni-berlin.de...
: One wonders why Yankland fought in WWII. Your description
: of the DHS makes it seek like the SS of today.

Actually not!
But I also wonder why we didn't fix the Island when we had the
chance. Probably not worth the effort. My Ancestors left when it
was under Henry VIII! It's pretty much gone down hill from there.

Your the proof!

742. Re: Wide Freq Range?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-08 19:41:46 UTC
From: Roger Gt <not@here.net>
Message-ID: <_rhHc.89034$5y.78688@newssvr29.news.prodigy.com>
Source record: 25024

"Tim Wescott" wrote
: Roger Gt wrote
: > 'Airy R. Bean" wrote
<snip>
: >
: Just to make sure that I'm universally reviled, I must point out
that
: he's a jerk, not a threat. People who want to abandon our
hard-won
: freedoms in exchange for the illusory "security" that comes from
: right-wing totalitarianism are threats as well as jerks (see
John
: Ashcroft and Donald Rumsfeld for examples).
: Tim Wescott

Sadam was also described as a "Jerk" but that was only his good
side!

Hey, you don't have to try, We know your a left wing nut.
But FYI, It's what we have now and the danger is real. I am not a
right winger, more of a "Libertarian" (Not liberal) but not as
stupid as the party by the same name. I revile religious
involvement in government and socialist programs creeping in to
further enslave the people. And those are my good points! :>)

743. Re: how to meas Zo of FT caps?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-08 21:41:07 UTC
From: sdeyoreo@hotmail.com
Message-ID: <8gfre0tl61nlnlesufsvl9vspdoj5piouq@4ax.com>
Source record: 25025

They're 50 ohm RF and DC feedthrus. Here's the company:
http://www.shp-seals.com/products_and_Services.htm
Click on bulletin 100. Most50 ohm types gave a VSWR of 1.05ish, giving
about 53 (or 47) ohms. I also had a few of the DC type that gave a
VSWR of 1.4ish, leading to about 25 ohms (or 75 ohms, could I check
the phase to see which?).

744. Re: Wide Freq Range?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-08 21:48:29 UTC
From: Rude Dog <snjr.spam@charter.net>
Message-ID: <10ergdh66kfdg6e@corp.supernews.com>
Source record: 25026

Gentlemen:

I did not mean to be the catalyst for a heated debate. My goal was simply to obtain information about a radio that will be utilized by responders during an emergency to contact my unit for assistance in manpower, vehicles, and aircraft.

For the most part, soldiers are apolitical. Therefore, I do not have an opinion on whether or not the war in Iraq is politically prudent. However, I will tell you as an Infantry Officer that the invasions of Afghanistan and Iraq were tactically prudent. The objective of warfare is to seek out, close on, and destroy an enemy. It is as simple as that. It is the "politicking" that muddies up that objective.

Strategically, the United States has sought an enemy (terrorists) and has closed on that enemy by selecting the battlefields of its choice. The numbers of terrorists who are migrating to those battlefields are in the thousands. Coalition forces are destroying those terrorists and reducing their ability to wage war as we speak and will continue to do so in the near future. The result is the terrorists are engaged in the Middle East, not in America or Europe.

The enemy successfully attacked Spain and killed many civilians. The enemy attacked to change the outcome of an election and Spain succumbed to the efforts of that enemy. People claim the reason Spain was attacked was because they had forces in the Middle East, however, Spain has been attacked by terrorists before the Iraq war (e.g. Barcelona 1987). It is likely Spain and all of Europe for that matter will be attacked again, primarily because of their relatively close proximity to the battlefield, until we defeat terrorism.

Regardless of your political position one point is clear. We must win this war on terrorism.

745. Re: Wide Freq Range?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-08 22:07:49 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10erhdjamp1c430@corp.supernews.com>
Source record: 25027

Rude Dog wrote:

> Gentlemen:
>
> I did not mean to be the catalyst for a heated debate. My goal was simply to
> obtain information about a radio that will be utilized by responders during
> an emergency to contact my unit for assistance in manpower, vehicles, and
> aircraft.
>
> For the most part, soldiers are apolitical. Therefore, I do not have an
> opinion on whether or not the war in Iraq is politically prudent. However, I
> will tell you as an Infantry Officer that the invasions of Afghanistan and
> Iraq were tactically prudent. The objective of warfare is to seek out, close
> on, and destroy an enemy. It is as simple as that. It is the "politicking"
> that muddies up that objective.
>
> Strategically, the United States has sought an enemy (terrorists) and has
> closed on that enemy by selecting the battlefields of its choice. The
> numbers of terrorists who are migrating to those battlefields are in the
> thousands. Coalition forces are destroying those terrorists and reducing
> their ability to wage war as we speak and will continue to do so in the near
> future. The result is the terrorists are engaged in the Middle East, not in
> America or Europe.
>
> The enemy successfully attacked Spain and killed many civilians. The enemy
> attacked to change the outcome of an election and Spain succumbed to the
> efforts of that enemy. People claim the reason Spain was attacked was
> because they had forces in the Middle East, however, Spain has been attacked
> by terrorists before the Iraq war (e.g. Barcelona 1987). It is likely Spain
> and all of Europe for that matter will be attacked again, primarily because
> of their relatively close proximity to the battlefield, until we defeat
> terrorism.
>
> Regardless of your political position one point is clear. We must win this
> war on terrorism.
>
>

Did you ever get an adequate answer to your original question, before we
got distracted by world politics? My newest radio is nearly 20 years
old, or I'd have helped you out myself.

--

Tim Wescott
Wescott Design Services

http://www.wescottdesign.com

746. Re: Wide Freq Range?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-08 22:23:22 UTC
From: Rude Dog <snjr.spam@charter.net>
Message-ID: <10erietd8sfg998@corp.supernews.com>
Source record: 25029

Tim:

I did get some email responses with recommendations for civilian transceivers with relatively wide freq ranges. I guess I was hoping the homebrew gang could come up with the "silver bullet", you know something like...

"oh that's easy, you get this x-brand $199 mobile and change a few jumper settings and presto a transceiver with every frequency you ever wanted!" :-)

Thanks!

Rude

747. Re: Wide Freq Range?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-08 22:25:31 UTC
From: "Gary S." <Idontwantspam@net>
Message-ID: <5ihre0to2djutqti9lpbi8qs8feuhirjcl@4ax.com>
Source record: 25028

On Thu, 08 Jul 2004 15:07:49 -0700, Tim Wescott
<tim@wescottnospamdesign.com> wrote:

>Did you ever get an adequate answer to your original question, before we
>got distracted by world politics? My newest radio is nearly 20 years
>old, or I'd have helped you out myself.

The problem is that what he had asked for, continuous tx coverage for
"approximately 60 MHZ thru 500 MHZ", would be technically difficult,
and thoroughly illegal for amateurs.

That would cover from (almost) the 6 meter band, through all of VHF
and all of UHF, including a variety of licensed services, public
service, business bands, marine bands, , aircraft bands, amateur
bands, restricted military bands, etc.

Not sure whether FM is sufficient for what he wants either, or if he
needs multiple modes, making for more complexity and $$.

No company is going to make a radio which is illegal to own or use for
most of the country.

There are a few handheld models, such as the Yaesu VX-7, which are
capable of RX on most of the bands and modes he wants, and TX on 3 or
4 amateur bands (plus the MARS/CAP frequencies next to them).

Looking at getting his people licensed as amateur operators, then
MARS/CAP certified to mod their radios, might meet most of his
requirements.

He would still need to check legalities with the FCC on using amateur
bands for this purpose. Not clear to me either way.

Happy trails,
Gary (net.yogi.bear)
---
at the 51st percentile of ursine intelligence

Gary D. Schwartz, Needham, MA, USA
Please reply to: garyDOTschwartzATpoboxDOTcom

748. Re: Wide Freq Range?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-08 23:04:03 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <nmkre05lage5t5pillrvqvmvirjtrcdt2t@4ax.com>
Source record: 25030

On Thu, 08 Jul 2004 22:25:31 GMT, Gary S. <Idontwantspam@net> wrote:

>The problem is that what he had asked for, continuous tx coverage for
>"approximately 60 MHZ thru 500 MHZ", would be technically difficult,
>and thoroughly illegal for amateurs.

One reason that we have broad band power amplifiers for the 1-30 MHz range is that we have transistors with sufficient (> 10) _current_ gains at the highest operating frequency (i.e. the transistor fT is at least 300 MHz).

To reach 500 MHz operating frequency, the fT would have to be somewhere close to 5 GHz, which is available at low power levels (< 1 W), but not with significant power levels.

It should be noted that even if there is no _current_ gain above the fT frequency, there might still be some _voltage_ gain (and hence _power_ gain) above transistor fT, especially when tuned loads are used. This is why you can build VHF/UHF amplifiers for a limited frequency range with considerable power output.

Paul OH3LWR

749. Re: how to meas Zo of FT caps?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-08 23:37:32 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <akmre0h1h6urbb19jai1r9a5cllvngc8un@4ax.com>
Source record: 25031

On Thu, 08 Jul 2004 17:41:07 -0400, sdeyoreo@hotmail.com wrote:

>They're 50 ohm RF and DC feedthrus. Here's the company:
>http://www.shp-seals.com/products_and_Services.htm
>Click on bulletin 100. Most50 ohm types gave a VSWR of 1.05ish, giving
>about 53 (or 47) ohms. I also had a few of the DC type that gave a
>VSWR of 1.4ish, leading to about 25 ohms (or 75 ohms, could I check
>the phase to see which?).

suppose they are 50ohm DC with 45ï¿½ phase angle ?

J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

750. Re: Wide Freq Range?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-08 23:38:32 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10ermnmgojo08f7@corp.supernews.com>
Source record: 25032

Gary S. wrote:

> On Thu, 08 Jul 2004 15:07:49 -0700, Tim Wescott
> <tim@wescottnospamdesign.com> wrote:
>
>
>>Did you ever get an adequate answer to your original question, before we
>>got distracted by world politics? My newest radio is nearly 20 years
>>old, or I'd have helped you out myself.
>
>
> The problem is that what he had asked for, continuous tx coverage for
> "approximately 60 MHZ thru 500 MHZ", would be technically difficult,
> and thoroughly illegal for amateurs.
>
> That would cover from (almost) the 6 meter band, through all of VHF
> and all of UHF, including a variety of licensed services, public
> service, business bands, marine bands, , aircraft bands, amateur
> bands, restricted military bands, etc.
>
> Not sure whether FM is sufficient for what he wants either, or if he
> needs multiple modes, making for more complexity and $$.
>
> No company is going to make a radio which is illegal to own or use for
> most of the country.
>
> There are a few handheld models, such as the Yaesu VX-7, which are
> capable of RX on most of the bands and modes he wants, and TX on 3 or
> 4 amateur bands (plus the MARS/CAP frequencies next to them).
>
> Looking at getting his people licensed as amateur operators, then
> MARS/CAP certified to mod their radios, might meet most of his
> requirements.
>
> He would still need to check legalities with the FCC on using amateur
> bands for this purpose. Not clear to me either way.
>
> Happy trails,
> Gary (net.yogi.bear)
> --
> at the 51st percentile of ursine intelligence
>
> Gary D. Schwartz, Needham, MA, USA
> Please reply to: garyDOTschwartzATpoboxDOTcom

Please check your rule book.

There's nothing wrong with an amateur _owning_ a piece of equipment capable of transmitting on all those frequencies, it's just not OK for us to actually do it.

I read a QST article recently (I think in the July issue). Civilians must be amateur radio operators to use the MARS frequencies, but military operators need only the approval of their CO.

But you're right in that there isn't a continuous coverage transceiver. There are both base and handheld units that will cover the various bands (probably with separate final amps in the transmitters).

--

Tim Wescott, KG7LI

751. Re: Wide Freq Range?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-08 23:41:25 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10ermt4eh762d03@corp.supernews.com>
Source record: 25033

Rude Dog wrote:

> Tim:
>
> I did get some email responses with recommendations for civilian
> transceivers with relatively wide freq ranges. I guess I was hoping the
> homebrew gang could come up with the "silver bullet", you know something
> like...
>
> "oh that's easy, you get this x-brand $199 mobile and change a few jumper
> settings and presto a transceiver with every frequency you ever wanted!"
> :-)
>
> Thanks!
>
> Rude
>
>

If this is for MARS/CAP operation you should see if there's an active
MARS group close to base. There has to be a few amateur operators in
your unit who may know someone, if not you could contact the ARRL
directly and see if they could help.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

752. Re: how to meas Zo of FT caps?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-08 23:41:25 UTC
From: Wes <n7ws@_yahoo.com>
Message-ID: <a1mre0p9ilr3q8bqs12d9hf3l5i88gtnii@4ax.com>
Source record: 25034

On 08 Jul 2004 18:05:51 GMT, tdonaly@aol.com (Tdonaly) wrote:

|Wes wrote,
|>Message-id: <edipe01p9d9j6tva42jjkpu433koem28qq@4ax.com>
|>
|>On Wed, 07 Jul 2004 18:34:15 -0400, sdeyoreo@hotmail.com wrote:
|>
|>|Well here's what I did: I treated it like a peice of coax. I made a
|>|fixture to hold the "feedthru" with semi-rigid coax on one side and a
|>|50 ohm chip resistor on the other. I dropped in a short peice of coax
|>|and cal'ed to that. Then checked VSWR, was about 1.00something. Then I
|>|took out the coax, dropped in a few feedthrus and got VSWRs about 1.04
|>|- 1.06, which works out to about 53 - 55 ohms or so.
|>| How's that sound?
|>
|>Like you don't know what you're doing.
|>
|>Your DUT is a two-port device. If you really have a network analyzer,
|>why aren't you using it to measure the device as a two port?
|>
|>
|>
|
|Is two port theory even being taught in engineering schools these days?

Beats me Tom. I'm retired, I know nuttin' 'bout engineering school.

I do know that if someone had brought me these devices to test, the
first thing I would have done would be to try and talk them out of
doing it.

I did that often. I used to see things like big LC power filters with
a solder lug on one side and two feet of shield wire coming out of the
other side with a pigtail on the far end and an attenuation spec that
went from 10 Hz to 10 GHz.

Damn fool engineers would think, well I've got an AMRAAM missile with
a 10 GHz transmitter, so I better have a filter that rejects 10 GHz.
Trying to explain that the device can't be measured to the design
engineer and the spec writer was almost a pointless exercise.

I can say that after my first retirement and subsequent rehire to
manage a components engineering group that was doing the spec writing,
we didn't do that crap anymore.

Specing and measuring feedthru filters was one of the most pointless things we ever did. The specs all measure attenuation in a 50 ohm system and the filters are never used in a 50 ohm system. In fact, nobody ever knows what the source and load Z are at the test frequencies so they don't know what they need or what they get.

Oh well, it was a pretty good living. Thank you taxpayers.

753. Re: PLL for VHF receiver (see attached files)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-08 23:53:38 UTC
From: SioL <Sio_spam_L@same.net>
Message-ID: <B8lHc.6412$37.864516@news.siol.net>
Source record: 25035

"Damien Teney" <damien.teney@sobelairva.net> wrote in message
news:JpidnUAnn4hl5nDdRVn-ig@scarlet.biz...

> I have also included the schematics of the VCO (with the buffering
> transistor, T4), and the basic schematic of the PLL (taken from a Motorola
> application note). I don't know where the problem could come from. I would
> say from the bad buffering of the VCO output, but I don't see how it could
> be improved.
>
> http://www.mcarsweb.com/_divers/4VCO.jpg
> http://www.mcarsweb.com/_divers/5PLL.jpg
>
> I'm really getting mad with this problem ! So thanks to all of you who will
> answer ;-)

What's your reference frequency? I mean, prescaler ratio and pll step.

SioL

754. DTMF Software??

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-09 00:03:15 UTC
From: haf47@juno.com
Message-ID: <f03bf94f.0407081603.1fae8ff8@posting.google.com>
Source record: 25036

Hello and thanks for reading this note.

I am looking for software (preferably freeware!) that will kick out
DTMF tones on my PC speaker.

I am putting a decoder together and want to use this for testing.

Any info appreciated.

73 de WA2AFD

755. Re: PLL for VHF receiver (see attached files)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-09 01:08:32 UTC
From: Bob Liesenfeld <wb0poq@visi.com>
Message-ID: <40EDF010.BB6416E1@visi.com>
Source record: 25037

Hi,
Did you build the loop filter per the schematic in that app note? Have you put a 10X scope probe on the VCO control line and viewed it with a scope? Also, where did you find that PLL app note? It looks much like others I have seen from Motorola on that series of PLL but I'm always looking for more documentation. :)

72
Bob WB0POQ

756. Re: Wide Freq Range?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-09 02:40:02 UTC
From: "Gary S." <Idontwantspam@net>
Message-ID: <28ure0tndqta640lqfgjc3cm7itc5q26is@4ax.com>
Source record: 25038

On Thu, 08 Jul 2004 16:38:32 -0700, Tim Wescott
<tim@wescottnospamdesign.com> wrote:

>Gary S. wrote:
>
>> The problem is that what he had asked for, continuous tx coverage for
>> "approximately 60 MHZ thru 500 MHZ", would be technically difficult,
>> and thoroughly illegal for amateurs.
>>
>> That would cover from (almost) the 6 meter band, through all of VHF
>> and all of UHF, including a variety of licensed services, public
>> service, business bands, marine bands, , aircraft bands, amateur
>> bands, restricted military bands, etc.
>>
>> Not sure whether FM is sufficient for what he wants either, or if he
>> needs multiple modes, making for more complexity and $$.
>>
>> No company is going to make a radio which is illegal to own or use for
>> most of the country.
>>
>> There are a few handheld models, such as the Yaesu VX-7, which are
>> capable of RX on most of the bands and modes he wants, and TX on 3 or
>> 4 amateur bands (plus the MARS/CAP frequencies next to them).
>>
>> Looking at getting his people licensed as amateur operators, then
>> MARS/CAP certified to mod their radios, might meet most of his
>> requirements.
>>
>> He would still need to check legalities with the FCC on using amateur
>> bands for this purpose. Not clear to me either way.
>>
>> Happy trails,
>> Gary (net.yogi.bear)

>Please check your rule book.
>
>There's nothing wrong with an amateur _owning_ a piece of equipment
>capable of transmitting on all those frequencies, it's just not OK for
>us to actually do it.
>
Subtle. Could be interpreted as the intent to do so, without a
legitimate reason to have it.

Try to buy some lockpicks.

>I read a QST article recently (I think in the July issue). Civilians
>must be amateur radio operators to use the MARS frequencies, but
>military operators need only the approval of their CO.
>
I hadn't known about the military side of that. He had mentioned these
were for civilians working with them, so I don't think the military
permission would cover them.

>But you're right in that there isn't a continuous coverage transceiver.
> There are both base and handheld units that will cover the various
>bands (probably with separate final amps in the transmitters).

DC to daylight, all modes. And under $100.

Happy trails,
Gary (net.yogi.bear)
---
at the 51st percentile of ursine intelligence

Gary D. Schwartz, Needham, MA, USA
Please reply to: garyDOTschwartzATpoboxDOTcom

757. Re: magic band and baby monitors

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-09 03:36:34 UTC
From: bviel <sjouk@home.nl>
Message-ID: <ccl3rvbeu1@news1.tilbu1.nb.home.nl>
Source record: 25039

Not my babyfone, it uses microchips to encrypt the audio coming from the microphone.
And Yes, the manufacturers keep knowledge of hams being on the air.

"PDRUNEN" <pdrunen@aol.com> schreef in bericht news:20040708002103.05811.00001380@mb-m05.aol.com...
> Hi Group,
>
> I have a Icom 706 and dipole up for the 6 meter band. In scanning the band
> just before 50MHz I hear a few baby monitors.
>
> Assuming that I am running 100 watts and the dipole on SSB, will the parents
> hear my signal or do baby monitor manufacturers know that hams are just above
> this band and put filtering on the input?
>
> If so, I guess that I could switch modes to FM and talk to them. I see a
> simple modifications for the rig to allow out of band transmission but I am a
> bit lazy to open the rig up and do it. I would like to get on the new 60meter
> band which the 706 gxII does not have as open transmit.

758. Re: DTMF Software??

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-09 04:25:58 UTC
From: "Mark S." <markrolandsmith@sbcglobal.net>
Message-ID: <MPG.1b57be354d44d8c1989753@news.prodigy.net>
Source record: 25040

Howard wrote rec.radio.amateur.homebrew on 8 Jul 2004 17:03:15 -0700, the
following...
> Hello and thanks for reading this note.
>
> I am looking for software (preferably freeware!) that will kick out
> DTMF tones on my PC speaker.
>
> I am putting a decoder together and want to use this for testing.
>
> Any info appreciated.
>
> 73 de WA2AFD
>
Hello,

The only one I know of is DTMFF and you can find it at...
http://www.bookcase.com/library/software/msdos.rec.hamradio.html
It is old (1997) and runs under DOS.
It's cardware.

Maybe someone else will know of one a little newer.

Mark S.

759. Need data sheet for a NE2369 transistor

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-09 05:38:23 UTC
From: Craig <clark979@bellsouth.net>
Message-ID: <7bqHc.15386$jJ3.998@bignews5.bellsouth.net>
Source record: 25041

I am in need of a data sheet for a NE2369 transistor. This is a uhf amplifier/ oscillator transistor. I am not able to find anything on the net and was wondering if anyone might know where I can get a pdf of it.

Craig N5XNQ

760. Re: how to meas Zo of FT caps?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-09 06:56:39 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <yOugOmDnGk7AFAVE@ifwtech.co.uk>
Source record: 25042

Wes wrote:
>
>Specing and measuring feedthru filters was one of the most pointless
>things we ever did. The specs all measure attenuation in a 50 ohm
>system and the filters are never used in a 50 ohm system. In fact,
>nobody ever knows what the source and load Z are at the test
>frequencies so they don't know what they need or what they get.
>
Wes makes a valid point about the source and load impedances being unknown in practical applications. The filter performance is going to be different from the performance measured in a 50-ohm system.

But that doesn't make a 50-ohm measurement completely "pointless". In order to select a filter, you have to make *some* attempt to characterize the performance of the available options, under some kind of standard conditions.

If the source and load impedances are totally unknown, a 50-ohm environment is actually not a bad choice for a standard test, since it's neither extremely high nor extremely low. If you have a better handle on the practical source and load Z, then it makes sense to define a different standard test environment - for example, the standard Line Impedance Simulating Network (LISN) used for AC line/mains filters has a much lower source Z.

The common-sense solution is to have standard tests, but understand their limitations. Unfortunately - as Wes knows, all too well - military spec writers aren't noted for either common sense or understanding.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

761. Re: DTMF Software??

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-09 07:48:36 UTC
From: Markus L <uo9oew@lnubb.pbz>
Message-ID: <8TsHc.22$jP1.417@ns2.gip.net>
Source record: 25043

Howard wrote:
> I am looking for software (preferably freeware!) that will kick out
> DTMF tones on my PC speaker.

http://www.muenster.de/~welp/sb.htm

73, Markus HB9BRJ

762. Re: Wide Freq Range?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-09 08:49:53 UTC
From: "Airy R. Bean" <ariy.r.bean@lycos.co.uk>
Message-ID: <2l752qF9mkcbU1@uni-berlin.de>
Source record: 25044

Right Wing Terrorist (Yes - Yankland itself being the
remaining unchecked super-power is the terrorist
of the 21st Century) propaganda.

A more political stance would be difficult to come by than
that quoted below.

Who, other than the officers of the armed farces are the
main propagandists who persuade the turnip-brained
common squaddie that he is giving up his life for something
other than the vested interests of the officer and the officer's class?

"Rude Dog" <snjr.spam@charter.net> wrote in message
news:10ergdh66kfdg6e@corp.supernews.com...
> I did not mean to be the catalyst for a heated debate. My goal was simply
to
> obtain information about a radio that will be utilized by responders
during
> an emergency to contact my unit for assistance in manpower, vehicles, and
> aircraft.
>
> For the most part, soldiers are apolitical. Therefore, I do not have an
> opinion on whether or not the war in Iraq is politically prudent.

.....[other propaganda elided; check google for the rest].....

763. Re: DTMF Software??

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-09 08:51:55 UTC
From: "Airy R. Bean" <ariy.r.bean@lycos.co.uk>
Message-ID: <2l752qF9mkcbU2@uni-berlin.de>
Source record: 25045

The best software for any _REAL_ Radio Ham (this is,
after all, the homebrew NG) is that which he writes for
himself.

CBers buy things off the shelf.

"Howard" <haf47@juno.com> wrote in message
news:f03bf94f.0407081603.1fae8ff8@posting.google.com...
> Hello and thanks for reading this note.
> I am looking for software (preferably freeware!) that will kick out
> DTMF tones on my PC speaker.
> I am putting a decoder together and want to use this for testing.

764. Re: Wide Freq Range?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-09 09:01:44 UTC
From: "Airy R. Bean" <ariy.r.bean@lycos.co.uk>
Message-ID: <2l75c8F92rdmU1@uni-berlin.de>
Source record: 25046

Yankland rejected that defence for those who were
feeding the gas ovens in Nazi Germany that they
were only following orders.

Taken with the torturing that Yankland does in
Guantanamo Bay and in Iraq, has the wheel now come
full circle?

"Rude Dog" <snjr.spam@charter.net> wrote in message
news:10ergdh66kfdg6e@corp.supernews.com...
> For the most part, soldiers are apolitical. Therefore, I do not have an
> opinion on whether or not the war in Iraq is politically prudent.

765. VHF Prescalers?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-09 09:53:46 UTC
From: Harry - SM0VPO <harryvpo@quitewarmpost.com>
Message-ID: <cclpqi$5dc$1@newstree.wise.edt.ericsson.se>
Source record: 24947

Where have all the VHF prescalers gone?

A project I am designing worked with the MB501 (SA701 / MC12022 / SP8704), but it is now obsolete.
I managed to find a few MB506 chips so board was modified to suite. Now the source has dried up.

I have searched the web, visited 1000s of sites, all without success.

Anyone have any suggestions for a DIL or SIL VHF prescaler chip that will operate to 146 / 150MHz?

Perhaps I can use a n SMD (1.27mm pins) on a little PCB that plugs into the MB506 socket? Any ideas?

The project is for education, so I don't want to stuff the complete synth in a single chip. The object is that all stages of the synth are accessible with a scope, or SA, for demonstration.

BR Harry Lythall (alias Lippitz)

+46 73 629 5002

(Quite warm = hot. Post = mail. Make changes as necessary.)

766. Re: VHF Prescalers?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-09 10:10:56 UTC
From: "Harold E. Johnson" <W4ZCB@mchsi.com>
Message-ID: <QauHc.54315$XM6.46763@attbi_s53>
Source record: 24948

"Harry - SM0VPO" <harryvpo@quitewarmpost.com> wrote in message
news:cclpqi$5dc$1@newstree.wise.edt.ericsson.se...
> Where have all the VHF prescalers gone?

Check Barend. Has plenty.

http://www.xs4all.nl/~barendh/Indexeng.htm

W4ZCB

767. Re: PLL for VHF receiver (see attached files)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-09 11:28:40 UTC
From: dteney@hotmail.com
Message-ID: <4cb5c804.0407090328.6bef1a21@posting.google.com>
Source record: 24949

> What's your reference frequency? I mean, prescaler ratio and pll step.

Reference frequency is given by a 5.12 MHz crystal, divided by 1024,
that makes 5 KHz steps. The prescaler divides by 64/65.

768. Re: PLL for VHF receiver (see attached files)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-09 11:37:39 UTC
From: dteney@hotmail.com
Message-ID: <4cb5c804.0407090337.21999c42@posting.google.com>
Source record: 24950

> Hi,
> Did you build the loop filter per the schematic in that app note? Have you
> put a 10X scope probe on the VCO control line and viewed it with a scope?

In fact the problem is that the receiver is less sensitive and
products a lot of whistles, even when I ONLY connect the output of the
VCO to the PLL, and control it with the potmeter (see
http://www.mcarsweb.com/_divers/3sketch.jpg).

That shows that the problem cannot be in the output filter of the PLL.

I have also tried to put the PLL circuit alone in a grounded closed
metal box to shield it, but I still get these whistles in the
receiver output.

Where do you think the problem could come from ?

> where did you find that PLL app note? It looks much like others I have seen
> from Motorola on that series of PLL but I'm always looking for more
> documentation. :)

Motorola application note 980
http://www.mcarsweb.com/_divers/Motorola%20application%20note%20980.pdf

769. Re: PLL for VHF receiver (see attached files)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-09 11:54:32 UTC
From: SioL <Sio_spam_L@same.net>
Message-ID: <THvHc.6434$37.868967@news.siol.net>
Source record: 24951

"Damien Teney" <dteney@hotmail.com> wrote in message
news:4cb5c804.0407090328.6bef1a21@posting.google.com...
> > What's your reference frequency? I mean, prescaler ratio and pll step.
>
> Reference frequency is given by a 5.12 MHz crystal, divided by 1024,
> that makes 5 KHz steps. The prescaler divides by 64/65.

I see others in sed have given valuable advice.

Seems like shielding will improve things. One other thing, try to power
the radio and the PLL from different sources just for a test. You'll need
good power decoupling to eliminate spikes generated by the PLL circuitry.

SioL

770. Data

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-09 12:16:30 UTC
From: Eamon Skelton <Xnospam@oceanfree.net>
Message-ID: <vte2s1-ueg.ln1@skelton.news.cis.dfn.ed>
Source record: 24952

I'm looking for info about the following components.

NEC 7F71RA (VHF tetrode from TV TX)

3SK183 DG-GaAsFET

The 3SK183 seems similar to the CF300 and 3SK97. I
would like to be sure about the pin-out, before I
power it up.

The only info I could find about the NEC 7F71RA
is on this page:
http://www5a.biglobe.ne.jp/~jh2clv/7f71radata.htm

Many Thanks.

73, Ed. EI9GQ.

--
Remove 'X' to reply by E-mail.
Linux 2.6.7

771. Very low cost PCB prototypes

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-09 13:59:25 UTC
From: W3JDR <joe@roccis.com>
Message-ID: <1xxHc.49950$MT5.29711@nwrdny01.gnilink.net>
Source record: 24953

I just stumbled on this.

Prototype PCB's for $20.00, including mask, screen, & shipping:

http://greatpcbdeals.easystorecreator.com/store.asp

Joe
W3JDR

772. Re: VHF Prescalers?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-09 14:51:08 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10etc6r5jb7p234@corp.supernews.com>
Source record: 24954

Harry - SM0VPO wrote:

> Where have all the VHF prescalers gone?
>
> A project I am designing worked with the MB501 (SA701 / MC12022 / SP8704),
> but it is now obsolete.
> I managed to find a few MB506 chips so board was modified to suite. Now the
> source has dried up.
>
> I have searched the web, visited 1000s of sites, all without success.
>
> Anyone have any suggestions for a DIL or SIL VHF prescaler chip that will
> operate to 146 / 150MHz?
>
> Perhaps I can use a n SMD (1.27mm pins) on a little PCB that plugs into the
> MB506 socket? Any ideas?
>
> The project is for education, so I don't want to stuff the complete synth in
> a single chip. The object is that all stages of the synth are accessible
> with a scope, or SA, for demonstration.
>
> BR Harry Lythall (alias Lippitz)
>
> +46 73 629 5002
>
> (Quite warm = hot. Post = mail. Make changes as necessary.)
>
>
Digi-key has a number of them from Infineon and NEC; On semiconductor
lists 8 in current production. I think all the through-hole ones will
have dried up because at those frequencies the package really gets in
the way of the signal, so you should probably plan on using SMD.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

773. Re: Wide Freq Range?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-09 16:03:52 UTC
From: tdonaly@aol.com
Message-ID: <20040709120352.23133.00001236@mb-m07.aol.com>
Source record: 24955

Rude Dog wrote,
>
>Regardless of your political position one point is clear. We must win this
>war on terrorism.
>
>

You can't actually win a war against an ism. Humans have been terrorizing
each other since the dawn of man and will continue to do so until they
become extinct. We use it ourselves against our enemies whenever the
need arises. The current use of the the words "war on terrorism" is
designed to get a soft-minded public to support the government's effort to
secure
the last vestiges of middle-east oil, and has very little to do with defending
ourselves against Muslim religious fanatics.
73,
Tom Donaly, KA6RUH

774. Re: DTMF Software??

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-09 16:30:21 UTC
From: marsgal42@hotmail.com
Message-ID: <d42b5a72.0407090830.16594986@posting.google.com>
Source record: 24956

"Airy R. Bean" <ariy.r.bean@lycos.co.uk> wrote in message
news:<2l752qF9mkcbU2@uni-berlin.de>...
> The best software for any _REAL_ Radio Ham (this is,
> after all, the homebrew NG) is that which he writes for
> himself.
>
> CBers buy things off the shelf.

To generate a tone out a sound card is half a dozen
lines of C. To generate two tones isn't much more.
Look at any reference on how DDS chips work to see
how.

Laura Halliday VE7LDH "Que les nuages soient notre
Grid: CN89mg pied a terre..."
ICBM: 49 16.05 N 122 56.92 W - Hospital/Shafte

775. Re: Wide Freq Range?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-09 16:40:17 UTC
From: mikea@mikea.ath.cx
Message-ID: <ccmhphlkr5@puck.litech.org>
Source record: 24957

Gary S. <Idontwantspam@net> wrote:
> On Thu, 08 Jul 2004 16:38:32 -0700, Tim Wescott
> <tim@wescottnospamdesign.com> wrote:

> >There's nothing wrong with an amateur _owning_ a piece of equipment
> >capable of transmitting on all those frequencies, it's just not OK for
> >us to actually do it.

> Subtle. Could be interpreted as the intent to do so, without a
> legitimate reason to have it.

Try again?

The "justice system" will make whatever interpretations it finds convenient; ditto for the FCC. But then they've got to justify those interpretations and the conclusions they draw from them.

I'm not a ham at the moment: my Novice ticket expired in 1964. I own an Icom 751 transceiver, and intend to use it. That is, I intend to use it _legally_, after I get a General ticket. But I'm not a ham now, and I do intend to use the transceiver to transmit. Care to turn _me_ in? On what grounds?

> Try to buy some lockpicks.

Lockpicks?

Easy, here in central Oklahoma: I walked into the locksmith's shop nearby, and ordered two sets: one for work and one for home. I'm the Officially-Designated Lock-Picker at work: open desks, doors, file cabinets, and cars on legitimate request. Most recently I got into a car that some idjit had left running and locked with the keys inside, in the middle of one of our parking lots, blocking the only entrance/exit.

I don't travel with my own set, lest some overzealous police type decide that I'm equipped with the picks to use as burglar tools, but I do open houses, desks, file cabinets, and cars for friends in the area -- again, after being _sure_ that it's a legitimate request.

--
Mike Andrews
mikea@mikea.ath.cx
Tired old sysadmin

776. Re: DTMF Software??

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-09 17:05:50 UTC
From: "Airy R. Bean" <ariy.r.bean@lycos.co.uk>
Message-ID: <2l81o3Fa2fn7U2@uni-berlin.de>
Source record: 24958

"Pas de lieu Rhone que nous"??

"Laura Halliday" <marsgal42@hotmail.com> wrote in message
news:d42b5a72.0407090830.16594986@posting.google.com...
> Laura Halliday VE7LDH
> "Que les nuages soient notre pied a terre..."

777. Re: Wide Freq Range?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-09 17:11:24 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10etkdq5hjou60a@corp.supernews.com>
Source record: 24960

Mike Andrews wrote:

> Gary S. <Idontwantspam@net> wrote:
>
>>On Thu, 08 Jul 2004 16:38:32 -0700, Tim Wescott
>><tim@wescottnospamdesign.com> wrote:
>
>
>>>There's nothing wrong with an amateur _owning_ a piece of equipment
>>>capable of transmitting on all those frequencies, it's just not OK for
>>>us to actually do it.
>
>
>>Subtle. Could be interpreted as the intent to do so, without a
>>legitimate reason to have it.
>
>
> Try again?
>
> The "justice system" will make whatever interpretations it finds
> convenient; ditto for the FCC. But then they've got to justify those
> interpretations and the conclusions they draw from them.
>
> I'm not a ham at the moment: my Novice ticket expired in 1964. I own
> an Icom 751 transceiver, and intend to use it. That is, I intend to
> use it _legally_, after I get a General ticket. But I'm not a ham now,
> and I do intend to use the transceiver to transmit. Care to turn _me_
> in? On what grounds?
>
>
>>Try to buy some lockpicks.
>
>
> Lockpicks?
>
> Easy, here in central Oklahoma: I walked into the locksmith's shop
> nearby, and ordered two sets: one for work and one for home. I'm
> the Officially-Designated Lock-Picker at work: open desks, doors,
> file cabinets, and cars on legitimate request. Most recently I got
> into a car that some idjit had left running and locked with the keys
> inside, in the middle of one of our parking lots, blocking the only
> entrance/exit.
>
> I don't travel with my own set, lest some overzealous police type

> decide that I'm equipped with the picks to use as burglar tools, but
> I do open houses, desks, file cabinets, and cars for friends in the
> area -- again, after being _sure_ that it's a legitimate request.
>
Good luck on your ticket -- you do know that if you pass the
technician's and the code test you can do code, and a bit of SSB on 10
meters?

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

778. Re: Help with A.R.R.L 1960 Handbook Project

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-09 17:11:38 UTC
From: N2EY@AOL.COM
Message-ID: <c2356669.0407090911.6fd981a5@posting.google.com>
Source record: 24959

ronayling@hotmail.com (Ron) wrote in message
news:<921a5e96.0407080034.51e13732@posting.google.com>...
> Hi, at the moment I'm refurbishing an old radio that was originally
> built from a project in the 1960 ARRL Handbook Page 119 The 2*4+1
> Superhet, it is a superb design and works really well for such a
> simple receiver, is it possible to find out who designed it? I can't
> find any reference to that in the project, I'm writing up the
> refurbishment and would like any info on the original design..

That rx is one of a long series of 80/40 "band imaging" sets to come out of ARRL Hq. They were all designed and built by staffers.

Some ARRL Handbook projects were QST articles first, while others were "built for the Handbook" and never appeared in QST or any other League publication. Most were built by HQ staffers, but a few were "from outside".

IIRC the 2X4+1 was built "for the Handbook" and its designer/builder(s) is/are unknown.

W1DX was the Handbook editor in those times but he's SK now, as are almost all Hq staff of that generation except for W1NJM. It "looks like" a W1DX project to me, though that's just a guess. He was very interested in getting the most performance out of relatively simple receivers. His 1957 QST article "What's Wrong With Our Present Receivers" is a must-read even today.

73 de Jim, N2EY

779. Re: Wide Freq Range?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-09 17:45:32 UTC
From: troglodite@aol.com
Message-ID: <20040709134532.23881.00001525@mb-m28.aol.com>
Source record: 24961

>Good luck on your ticket -- you do know that if you pass the
>technician's and the code test you can do code, and a bit of SSB on 10
>meters?
>

Actually, if he passes the Tech, all he has to do is prove he held a Novice ticket in 1964 and he can be issued credit for the code. Then all he needs to pass is the written exam to upgrade to General.

780. Re: Wide Freq Range?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-09 18:56:25 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <FhRd1FWZpu7AFAQh@ifwtech.co.uk>
Source record: 24962

Mike Andrews wrote:

>I'm the Officially-Designated Lock-Picker at work

[...]

>Mike Andrews
>mikea@mikea.ath.cx
>Tired old sysadmin

Somehow, those two jobs do seem to go together...

--
73 from Ian G3SEK

781. Re: Help with A.R.R.L 1960 Handbook Project

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-09 19:20:39 UTC
From: et472@FreeNet.Carleton.CA
Message-ID: <ccmr67boa1@freenet9.carleton.ca>
Source record: 24963

N2EY (N2EY@AOL.COM) writes:
> ronayling@hotmail.com (Ron) wrote in message
news:<921a5e96.0407080034.51e13732@posting.google.com>...
>> Hi, at the moment I'm refurbishing an old radio that was originally
>> built from a project in the 1960 ARRL Handbook Page 119 The 2*4+1
>> Superhet, it is a superb design and works really well for such a
>> simple receiver, is it possible to find out who designed it? I can't
>> find any reference to that in the project, I'm writing up the
>> refurbishment and would like any info on the original design..
>
> That rx is one of a long series of 80/40 "band imaging" sets to come
> out of ARRL Hq. They were all designed and built by staffers.
>
> Some ARRL Handbook projects were QST articles first, while others were
> "built for the Handbook" and never appeared in QST or any other League
> publication. Most were built by HQ staffers, but a few were "from
> outside".
>
> IIRC the 2X4+1 was built "for the Handbook" and its
> designer/builder(s) is/are unknown.
>
> W1DX was the Handbook editor in those times but he's SK now, as are
> almost all Hq staff of that generation except for W1NJM. It "looks
> like" a W1DX project to me, though that's just a guess. He was very
> interested in getting the most performance out of relatively simple
> receivers. His 1957 QST article "What's Wrong With Our Present
> Receivers" is a must-read even today.
>
> 73 de Jim, N2EY

I think you're right about it being from W1DX, and that it's one of many
using the same basic scheme. I have the 1961 Handbook, and it has the
same receiver. Plus, right before it a simpler receiver that shows
a strong similariy to the 2X4+1, the "SimpleX Super".

But I can almost picture the latter in a QST. It has a distinctive home made
dial, and I think I've seen it elsewhere.

And then I started poking around, and it doesn't look like they specify
the dates of the QSTs where the articles originally appeared. This seems
to be a policy that varied over time. I know a few years later, they would
tend to specify the date of the original article, but I'm not even sure if
it was completely common.

So I wouldn't completely rule out that the article did run in an earlier QST. It surely would not have been more than a few years earlier, since as you say this sort of receiver tended to appear regularly, and after a few years they'd have a more recent construction article to put in the Handbook.

If someone had the annual indexes from around that time handy, it would be real easy to check whether this was a Handbook-only article or not.

Michael VE2BVW

782. Re: PLL for VHF receiver (see attached files)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-09 21:07:03 UTC
From: Bob Liesenfeld <wb0poq@visi.com>
Message-ID: <40EF08F7.DE9102E6@visi.com>
Source record: 24964

Damien Teney wrote:

>
> In fact the problem is that the receiver is less sensitive and
> products a lot of whistles, even when I ONLY connect the output of the
> VCO to the PLL, and control it with the potmeter (see
> http://www.mcarsweb.com/_divers/3sketch.jpg).
>
> That shows that the problem cannot be in the output filter of the PLL.

I see....Ok, sounds like the trouble is in the VCO itself or in how the
VCO is coupled to the mixer. Do you have access to a spectrum
analyzer? It is beginning to sound like the oscillator may have a dirty
output or what used to be called 'squeegging' (sp?).
Here are some things I would try.
Use a couple of resistors to set the DC voltage on the varactor to some
moderate value. Make double-dog-darn-sure that the DC voltage feeding
the VCO and the varactor are absolutely clean (with a scope).
See if problem persists. (Obviously you will be at a fixed frequency
here). If so, I would suspect the oscillator problem described above.
Perhaps less feedback, or running it at a lower value of Vcc might help.
I think you said that the basic rx worked fine with a different LO. Is
this the case? If so, check the output of >that< LO with a scope or RF
probe and see if your VCO output is a similar P-P value. Maybe you are
overdriving the mixer?

My gut feeling is that the problem will turn out to be a noisy DC
control line on the varactor or dirty output from the oscillator.

Best of luck. Lets us know what you come up with. Remember.....this
kind of thing builds character and troubleshooting skills! :)

These are just basic troubleshooting ideas, but might lead you to
something meaningful.
>
> I have also tried to put the PLL circuit alone in a grounded closed
> metal box to shield it, but I still get these whistles in the
> receiver output.
>
> Where do you think the problem could come from ?
>
> > where did you find that PLL app note? It looks much like others I have seen
> > from Motorola on that series of PLL but I'm always looking for more
> > documentation. :)
>
> Motorola application note 980

> http://www.mcarsweb.com/_divers/Motorola%20application%20note%20980.pdf

783. HP crystal Osc

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-09 22:01:56 UTC
From: hamaddict <lefty@yahoo.com>
Message-ID: <ua5ue0duia9mp7ao7urn7vom3ko82gcrrr@4ax.com>
Source record: 24965

What possible use does a HP 10811-6011 Crystal Oscillator have in a homebrew project. I came across one of these but don'y really know what to do with it. I hate to toss it out.

784. Re: HP crystal Osc

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-09 22:21:46 UTC
From: Da Shadow <DAS@cat.net>
Message-ID: <%TEHc.34$W83.8@fed1read01>
Source record: 24966

Makes a good house standard to calibrate your receivers and test equipment.

Try google search engine to see how others use it

Type in HP 10811

--
Lamont Cranston

The Shadow Knows
"hamaddict" <lefty@yahoo.com> wrote in message
news:ua5ue0duia9mp7ao7urn7vom3ko82gcrrr@4ax.com...
> What possible use does a HP 10811-6011 Crystal Oscillator have in a
> homebrew project. I came across one of these but don'y really know
> what to do with it. I hate to toss it out.
>
>

785. Re: how to meas Zo of FT caps?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-09 22:25:11 UTC
From: averyfineman@aol.com
Message-ID: <20040709182511.07368.00000383@mb-m24.aol.com>
Source record: 24967

In article <k4ipe0pfhqf556p3lgnobe4nheunf9uop6@4ax.com>, Bill Turner
<noway@nohow.com> writes:

>On 08 Jul 2004 03:42:41 GMT, averyfineman@aol.com (Avery Fineman) wrote:
><massive snip>
>
>> Feed-through CAPACITORS were NEVER rated by "characteristic
>> impedance" (Zo). Not in 1964, not in 2004, not in years between.
>
>_____
>
>How dare I disagree with someone who knows about every feedthrough
>capacitor ever made over a forty year period by every manufacturer in
>the world. Shame on me.

Why?

>But think about this in relation to your statement: We both know of at
>least one person (and his boss) who wants to know the Zo of a
>feedthrough capacitor. Do you really think in forty years there has not
>been ONE OTHER person who might have actually designed such a thing?

...on April 1st? The famous "Write-Only Memory" or WOM comes
to mind. :-)

The original question involved "Zo of a feedthrough CAPACITOR."

Capacitors rated in "Zo" of a transmission line? I don't think so.

I've never seen that in 55 years. Maybe you have?

Capacitors are rated first in Farads. Next in working voltage.

In "characteristic impedance?" I doubt it happened even once.

>The word "never" is powerful. Be careful with it. Always. :-)

Right yer are, guv'nor, beggin yer pardon, yer lordship.

<bows respectfully, backs out through castle entrance...>

LenAnderson@ieee.org

786. Re: HP crystal Osc

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-09 23:18:00 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <MPG.1b58c7833665175b9896d2@news-central.giganews.com>
Source record: 24968

In article <ua5ue0duia9mp7ao7urn7vom3ko82gcrrr@4ax.com>, lefty@yahoo.com
says...
> What possible use does a HP 10811-6011 Crystal Oscillator have in a
> homebrew project. I came across one of these but don'y really know
> what to do with it. I hate to toss it out.
>
>
>

These oscillators are much more stable than TCXOs used in ham equipment,
but they are not always directly comparable. A TCXO will be stable from
the moment it's powered on, while an OCXO like the 10811 will be very
far off frequency until it warms up, which may take 2-3 minutes.

Most ham applications do not need the extra stability offered by an
OCXO. Test equipment is the primary application for these devices.

If you toss it out, feel free toss it this way. :)

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam
---

787. Re: Wide Freq Range?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-09 23:31:30 UTC
From: jgboyles@aol.com
Message-ID: <20040709193130.25422.00001253@mb-m29.aol.com>
Source record: 24969

>The current use of the the words "war on terrorism" is designed to get a soft-minded public to support the government's effort to secure the last vestiges of middle-east oil, and has very little to do with defending >ourselves against Muslim religious fanatics.

Hi Tom, How do you know all this? I hope it is not from conclusions developed from the 5 O'Clock News. They tell you what they want you to hear. Have you been over there to see what was going on? I am really interested.
These newsgroups have a history of providing references to bold theory statements. Can you provide conclusive references to your non-technical, political, don't belong here statements? I enjoy reading your on-topic posts:-)
73 Gary N4AST

788. Cancel "Re: how to meas Zo of FT caps?"

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-09 23:59:27 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <gacue01p7agnan6a9kalhu863hi6q4gmar@4ax.com>
Source record: 24970

J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

789. Re: magic band and baby monitors

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-10 01:00:06 UTC
From: farinasinsurance@sbcglobal.net
Message-ID: <qcHHc.89482$Lk4.62528@newssvr29.news.prodigy.com>
Source record: 24971

"bviel" <sjouk@home.nl> wrote in message
news:ccl3rvbeu1@news1.tilbu1.nb.home.nl...
> Not my babyfone, it uses microchips to encrypt the audio coming from the
> microphone.
> And Yes, the manufacturers keep knowledge of hams being on the air.
Microchips/encrypted..BULLSHIT.......MFG'rs keep info...MORE BULLSHIT

790. Re: magic band and baby monitors

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-10 01:14:43 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <7qHHc.16067$eO.13339@edtnps89>
Source record: 24972

Behold, farinasinsurance signalled from keyed 4-1000A filament:

> Microchips/encrypted..BULLSHIT.......MFG'rs keep info...MORE BULLSHIT

Sounds like someone needs his bottle and go for a nap.....

--
Gregg
It's probably useful, even if it can't be SPICE'd
http://geek.scorpiorising.ca

791. Re: Help with A.R.R.L 1960 Handbook Project

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-10 04:01:44 UTC
From: wa0goz@arrl.net
Message-ID: <40EF6A28.166E@arrl.net>
Source record: 24973

Michael Black wrote:
>
> N2EY (N2EY@AOL.COM) writes:
> > ronayling@hotmail.com (Ron) wrote in message
news:<921a5e96.0407080034.51e13732@posting.google.com>...
> >> Hi, at the moment I'm refurbishing an old radio that was originally
> >> built from a project in the 1960 ARRL Handbook Page 119 The 2*4+1
> >> Superhet, it is a superb design and works really well for such a
> >> simple receiver, is it possible to find out who designed it? I can't
> >> find any reference to that in the project, I'm writing up the
> >> refurbishment and would like any info on the original design..
> >
> > That rx is one of a long series of 80/40 "band imaging" sets to come
> > out of ARRL Hq. They were all designed and built by staffers.
> >
> > Some ARRL Handbook projects were QST articles first, while others were
> > "built for the Handbook" and never appeared in QST or any other League
> > publication. Most were built by HQ staffers, but a few were "from
> > outside".
> >
> > IIRC the 2X4+1 was built "for the Handbook" and its
> > designer/builder(s) is/are unknown.
> >
> > W1DX was the Handbook editor in those times but he's SK now, as are
> > almost all Hq staff of that generation except for W1NJM. It "looks
> > like" a W1DX project to me, though that's just a guess. He was very
> > interested in getting the most performance out of relatively simple
> > receivers. His 1957 QST article "What's Wrong With Our Present
> > Receivers" is a must-read even today.
> >
> > 73 de Jim, N2EY
>
> I think you're right about it being from W1DX, and that it's one of many
> using the same basic scheme. I have the 1961 Handbook, and it has the
> same receiver. Plus, right before it a simpler receiver that shows
> a strong similariy to the 2X4+1, the "SimpleX Super".
>
> But I can almost picture the latter in a QST. It has a distinctive home made
> dial, and I think I've seen it elsewhere.
>
> And then I started poking around, and it doesn't look like they specify
> the dates of the QSTs where the articles originally appeared. This seems
> to be a policy that varied over time. I know a few years later, they would
> tend to specify the date of the original article, but I'm not even sure if

> it was completely common.
>
> So I wouldn't completely rule out that the article did run in an earlier
> QST. It surely would not have been more than a few years earlier, since
> as you say this sort of receiver tended to appear regularly, and after a few
> years they'd have a more recent construction article to put in the Handbook.
>
> If someone had the annual indexes from around that time handy, it would
> be real easy to check whether this was a Handbook-only article or not.
>
> Michael VE2BVW

Why don't you email the ARRL and ask them?

Henry

792. Re: HP crystal Osc

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-10 04:47:11 UTC
From: Rick Karlquist N6RK <richard@karlquist.removethis.com>
Message-ID: <jxKHc.51075$a24.19212@attbi_s03>
Source record: 24974

Some the guys around here use them on 10 GHz SSB.
You really need that kind of stability for that mode.
A TCXO is 100X worse. Another popular use is as
a "flywheel" with GPS, to get a very accurate frequency
source. Search on "HP Z3801" for info.

(I worked at the HP division that made these for 19 years.)

Rick N6RK

"hamaddict" <lefty@yahoo.com> wrote in message
news:ua5ue0duia9mp7ao7urn7vom3ko82gcrrr@4ax.com...
> What possible use does a HP 10811-6011 Crystal Oscillator have in a
> homebrew project. I came across one of these but don'y really know
> what to do with it. I hate to toss it out.
>
>

793. Re: Help with A.R.R.L 1960 Handbook Project

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-10 07:06:08 UTC
From: ronayling@hotmail.com
Message-ID: <921a5e96.0407092306.13c353a0@posting.google.com>
Source record: 24975

Hi, Thanks for all the emails and QST searches, it seems from all the mail I've received its very probable that W1DX was the author of the receiver project, I must admit I'm very impressed with its performance, I'd like to get a copy of the article that W1DX penned in QST "Whats wrong with our receivers" I gather it was a one page article, if anyone has it I'd be grateful of a copy, I have on previous occasions asked ARRL for various bits of info but never received any useful replies, perhaps I didn't get to the right person, thanks from Ron g3yuh.....

ronayling@hotmail.com (Ron) wrote in message news:<921a5e96.0407080034.51e13732@posting.google.com>...
> Hi, at the moment I'm refurbishing an old radio that was originally
> built from a project in the 1960 ARRL Handbook Page 119 The 2*4+1
> Superhet, it is a superb design and works really well for such a
> simple receiver, is it possible to find out who designed it? I can't
> find any reference to that in the project, I'm writing up the
> refurbishment and would like any info on the original design..

794. Re: PLL for VHF receiver (see attached files)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-10 08:40:15 UTC
From: farhan@phonestack.com
Message-ID: <fcc11bcf.0407100040.d1d9595@posting.google.com>
Source record: 24976

the crucial piece of information is that noise stays even when you have opened up the VCO loop.

looking at your setup, it appears to me that the noise can come from two sources, a) the VCO and b) the PLL. evidentaly, it is not from the VCO as your experiments prove. it is probably from the PLL circuitry. this is quite possible. the PLLs involve a lot of digital, noisy switching that can generate these birdies and spurs. however, these should stay well inside the PLL block. in your case, they are getting coupled back to your output.

there are a number of cures for this. all of them will work at a better buffer between the vco and the following PLL. the simplest solution is use a grounded gate FET amplifier between the PLL input and the VCO output. be careful though, such a configuration is almost gaurenteed to self oscillate. but that is easily taken care of. what you do is this .. solder the FET upside down with its legs sticking up. solder the gate to the ground with as small a lead as you can. then, using a thin copper sheet or an unetched pcb, make a sheild that is soldered vertically over the FET (with a cutaway to allow the FET body). keep the source and drain leads on opposite sides of the sheild. bias the FET for nominal current at about half the Idss.

if you have a copy of EMRFD around, you can check this design in the chapter on oscillators.

- farhan

795. Re: Help with A.R.R.L 1960 Handbook Project

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-10 09:13:34 UTC
From: Lou <FFSTA17NO@SPAMACCESS995.COM>
Message-ID: <2rOHc.2001$Wd.19061@ord-read.news.verio.net>
Source record: 24977

No, unless you're a member, they aren't very polite. I've been down that road too. I used to be a member, but their attitude chased me away. At a hamfest one year, I went to talk to the area rep and he blew me off like trash. SCREW THAT. I dropped the subscription and I told them why. He was there TO talk to members about issues. He was too busy with his buds - sitting there with him. How he got to be a rep, I'll never know. He sure wasn't interested in people's views or concerns. It's things like that - which help kill a good thing. He to me, is what I call - a "title" collector. Loves the title, screw the job that goes with it.

Lou

"Ron" <ronayling@hotmail.com> wrote in message news:921a5e96.0407092306.13c353a0@posting.google.com...
> Hi, Thanks for all the emails and QST searches, it seems from all the
> mail I've received its very probable that W1DX was the author of the
> receiver project, I must admit I'm very impressed with its
> performance, I'd like to get a copy of the article that W1DX penned in
> QST "Whats wrong with our receivers" I gather it was a one page
> article, if anyone has it I'd be grateful of a copy, I have on
> previous occasions asked ARRL for various bits of info but never
> received any useful replies, perhaps I didn't get to the right person,
> thanks from Ron g3yuh.......
>
>
>
>
> ronayling@hotmail.com (Ron) wrote in message news:<921a5e96.0407080034.51e13732@posting.google.com>...
> > Hi, at the moment I'm refurbishing an old radio that was originally
> > built from a project in the 1960 ARRL Handbook Page 119 The 2*4+1
> > Superhet, it is a superb design and works really well for such a
> > simple receiver, is it possible to find out who designed it? I can't
> > find any reference to that in the project, I'm writing up the
> > refurbishment and would like any info on the original design..

796. Re: Help with A.R.R.L 1960 Handbook Project

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-10 10:29:08 UTC
From: hamaddict <lefty@yahoo.com>
Message-ID: <a4hve0ppij74qbqofo6m4ivkkam86ej3m5@4ax.com>
Source record: 24978

On Sat, 10 Jul 2004 09:13:34 GMT, "Lou" <FFSTA17NO@SPAMACCESS995.COM>
wrote:

>No, unless you're a member, they aren't very polite. I've been down that
>road too. I used to be a member, but their attitude chased me away.
>At a hamfest one year, I went to talk to the area rep and he blew me off
>like trash. SCREW THAT. I dropped the subscription and I told them why. He
>was there TO talk to members about issues. He was too busy with his buds -
>sitting there with him. How he got to be a rep, I'll never know. He sure
>wasn't interested in people's views or concerns. It's things like that -
>which help kill a good thing. He to me, is what I call - a "title"
>collector. Loves the title, screw the job that goes with it.
>
>Lou
>

Do you think that you might have handled it wrong? Don't take this the
wrong way, but, why not stay in and attempt to change things? It seems
that quitting is no more than giving up. If it made you that made then
you go for the throat.

lefty

797. Is JB Weld Electrically conductive?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-10 10:39:56 UTC
From: Scott <acepilot@bloomer.net>
Message-ID: <cc-dnXpevp2hWnLdRVn-tw@bright.net>
Source record: 24979

I am modifying some DSS satellite feedhorns for use at 10 GHz.
Wondering if JB Weld is electrically conductive after it sets up. I was
thinking I would use JB Weld to build up the outside of the "waveguide"
since after boring it out to 3/4" will only leave a wall thickness of
about 1/16". That doesn't leave much meat for the two machine screws
that will be used to mount the panel mount SMA connector to screw in to.
That's only about 2.5 threads if I use 4-40 hardware or 3.5 threads if
I use 2-56. Not sure what size holes are in the SMA, which will dictate
which hardware will have to be used. God forbid if it takes a 6-32
screw to do the job (2 threads). The mounting screws can not penetrate
into the waveguide. Any other ideas?

Something else I just thought of...once the JB Weld has set up, will I
be able to tap threads into it?

Scott
N0EDV

798. Re: Is JB Weld Electrically conductive?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-10 10:55:58 UTC
From: Scott <acepilot@bloomer.net>
Message-ID: <TpadnbNq7uJjV3Ld4p2dnA@bright.net>
Source record: 24980

Nevermind...I found the technical data sheets on the web. Is is NOT conductive after set up. It has iron filings in it, but since it is an epoxy, it is not conductive. The good news is that it CAN be drilled, tapped, machined, etc., just like any metal could be...the mounting screws should provide the "ground" connection once they are screwed into the waveguide itself.

Scott
N0EDV

Scott wrote:

> I am modifying some DSS satellite feedhorns for use at 10 GHz. Wondering
> if JB Weld is electrically conductive after it sets up. I was thinking
> I would use JB Weld to build up the outside of the "waveguide" since
> after boring it out to 3/4" will only leave a wall thickness of about
> 1/16". That doesn't leave much meat for the two machine screws that
> will be used to mount the panel mount SMA connector to screw in to.
> That's only about 2.5 threads if I use 4-40 hardware or 3.5 threads if
> I use 2-56. Not sure what size holes are in the SMA, which will dictate
> which hardware will have to be used. God forbid if it takes a 6-32
> screw to do the job (2 threads). The mounting screws can not penetrate
> into the waveguide. Any other ideas?
>
> Something else I just thought of...once the JB Weld has set up, will I
> be able to tap threads into it?
>
> Scott
> N0EDV
>

799. Re: Is JB Weld Electrically conductive?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-10 11:54:57 UTC
From: "Harold E. Johnson" <W4ZCB@mchsi.com>
Message-ID: <lOQHc.62156$Oq2.52670@attbi_s52>
Source record: 24981

> Nevermind...I found the technical data sheets on the web. Is is NOT
> conductive after set up. It has iron filings in it, but since it is an
> epoxy, it is not conductive. The good news is that it CAN be drilled,
> tapped, machined, etc., just like any metal could be...the mounting
> screws should provide the "ground" connection once they are screwed into
> the waveguide itself.
>
> Scott
> N0EDV

THAT ought to provide a little inductance at 10 GHz.

W4ZCB

The SMA is 1/4-36. How about tapping for that and screw in a barrel mount?

800. FA:MORE COLLINS KNOBS+other stuff

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-10 13:36:39 UTC
From: Heytubeguy <heytubeguy@worldnet.att.net>
Message-ID: <HhSHc.79420$OB3.26748@bgtnsc05-news.ops.worldnet.att.net>
Source record: 24983

See listing at :

http://cgi6.ebay.com/ws/eBayISAPI.dll?ViewSellersOtherItems&userid=heytubeguy&completed=0&sort=3&since=-1&include=0&page=1&rows=25

tnx, 73 heytubeguy

801. Re: What sort of enclosures do you use ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-10 13:48:08 UTC
From: Highland Ham <abgm0csz.kn6whyz@ntlworld.com>
Message-ID: <ssSHc.140$Mb2.132@newsfe4-gui.ntli.net>
Source record: 24982

> I just finished my first homebrew radio, a VHF receiver with PLL, and it's
> time to put it in a box ! I've often read that HF circuits should be put
in
> metal boxes, but I don't know which one should choose. Are "sealed"
> enclosures such as this one
> http://www.velleman.be/common/product.Aspx?lan=1&id=7318
> better than boxes like that one
> http://www.velleman.be/common/product.Aspx?lan=1&id=11184 ?
>
> And do you think that plastic and ABS boxes are really bad for HF circuits
?

==========

It is difficult to advise on enclosures if the size of the radio and front panel operating component dimensions are unknown.
However you can readily make your own 'taylor made' enclosures from scrap (preferably double sided) printed circuit board.
Result : a perfectly screened box with a neat appearance. To prevent the outside from getting dull due to oxidisation ,it is best to apply a matt varnish.
Ham fleamarkets are a good source for scrap PCB ,normally sold by weight ,at least on the european continent.

Frank GM0CSZ / KN6WH

802. Re: HP crystal Osc

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-10 14:46:25 UTC
From: John Walton <jdwalton@comcast.net>
Message-ID: <79KdnT9Do-LQnW3dRVn-jg@comcast.com>
Source record: 24984

One of the great things which the telecom bust did was to make the equipment you designed at HP available to us experimenters -- I use my HP3586C Receiver's ovenized oscillator to drive my HP5334 frequency counter and HP3336B Synthesizer. I never dreamed I could have afforded this type of equipment until EBay made it possible.

"Rick Karlquist N6RK" <richard@karlquist.removethis.com> wrote in message news:jxKHc.51075$a24.19212@attbi_s03...
> Some the guys around here use them on 10 GHz SSB.
> You really need that kind of stability for that mode.
> A TCXO is 100X worse. Another popular use is as
> a "flywheel" with GPS, to get a very accurate frequency
> source. Search on "HP Z3801" for info.
>
> (I worked at the HP division that made these for 19 years.)
>
> Rick N6RK
>
>
> "hamaddict" <lefty@yahoo.com> wrote in message
> news:ua5ue0duia9mp7ao7urn7vom3ko82gcrrr@4ax.com...
> > What possible use does a HP 10811-6011 Crystal Oscillator have in a
> > homebrew project. I came across one of these but don'y really know
> > what to do with it. I hate to toss it out.
> >
> >
>
>

803. Re: Wide Freq Range?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-10 15:35:41 UTC
From: tdonaly@aol.com
Message-ID: <20040710113541.26618.00001505@mb-m03.aol.com>
Source record: 24985

Gary wrote,
>
>>The current use of the the words "war on terrorism" is designed to get a
>soft-minded public to support the government's effort to secure the last
>vestiges of middle-east oil, and has very little to do with defending
>>ourselves against Muslim religious fanatics.
>
>Hi Tom, How do you know all this? I hope it is not from conclusions
>developed
>from the 5 O'Clock News. They tell you what they want you to hear. Have you
>been over there to see what was going on? I am really interested.
> These newsgroups have a history of providing references to bold theory
>statements. Can you provide conclusive references to your non-technical,
>political, don't belong here statements? I enjoy reading your on-topic
>posts:-)
>73 Gary N4AST
>
>

I guess you don't agree with my "non-technical, political, don't belong here

statements." I was responding to another non-technical, political, don't
belong here statement by a person who was responding to another non-technical,
political, don't belong here statement by some eccentric Brit.
What we need is a group devoted to off-topic posts. :-)
73,
Tom Donaly, KA6RUH

804. Re: PLL for VHF receiver (see attached files)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-10 15:42:48 UTC
From: dteney@hotmail.com
Message-ID: <4cb5c804.0407100742.77d93d19@posting.google.com>
Source record: 24986

> all of them will work at a
> better buffer between the vco and the following PLL. the simplest
> solution is use a grounded gate FET amplifier between the PLL input
> and the VCO output. be careful though, such a configuration is almost
> gaurenteed to self oscillate. but that is easily taken care of. what
> you do is this .. solder the FET upside down with its legs sticking
> up. solder the gate to the ground with as small a lead as you can.
> then, using a thin copper sheet or an unetched pcb, make a sheild that
> is soldered vertically over the FET (with a cutaway to allow the FET
> body). keep the source and drain leads on opposite sides of the
> sheild. bias the FET for nominal current at about half the Idss.

Yes, that also sounds for me the best thing to do (improving buffer
between VCO and PLL). Well, I'm not experienced with such circuits, so
could you just explain how to bias the FET.

```
VCO o-||-- S-D --||--o OUT TO PLL
^ FET=MPF102 or stg like that
G
|
o----------------o GND
```

And one last thing, could you re-explain how you advise to shield the
FET ? I don't see what you mean :-(

Thanks for your answer ;-)

805. Re: Wide Freq Range?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-10 15:43:45 UTC
From: "Gary S." <Idontwantspam@net>
Message-ID: <vf30f0dkre3san5vridctgd8kh8im7v4cp@4ax.com>
Source record: 24987

On 10 Jul 2004 15:35:41 GMT, tdonaly@aol.com (Tdonaly) wrote:

> I guess you don't agree with my "non-technical, political, don't belong here
>
>statements." I was responding to another non-technical, political, don't
>belong here statement by a person who was responding to another non-technical,
>political, don't belong here statement by some eccentric Brit.
> What we need is a group devoted to off-topic posts. :-)
>73,
>Tom Donaly, KA6RUH
>
The first thread in news:alt.off-topic would have to be a discussion
of what posts are ON topic for that group.

Or people could just set "followups to" directed to that group from
every other group.

Happy trails,
Gary (net.yogi.bear)
---
at the 51st percentile of ursine intelligence

Gary D. Schwartz, Needham, MA, USA
Please reply to: garyDOTschwartzATpoboxDOTcom

806. Re: '73 Magazine'?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-10 16:17:38 UTC
From: Ken Scharf <wa2mzeNOTTHIS@bellsouth.net>
Message-ID: <JAUHc.33441$XF5.9961@bignews4.bellsouth.net>
Source record: 24988

R J Carpenter wrote:
> "Michael Black" <et472@FreeNet.Carleton.CA> wrote in message
> news:cch62adjd1@freenet9.carleton.ca...
>
>>"Terry" (tsanford@nf.sympatico.ca) writes:
>>
>>>Is the 73 magazine still published?
>>>If not when did it cease?
>>>Seems to be a most interesting magazine for amateur constructors.
>>>For example I have a November 1966 issue that; "Is published by 73 Inc.
>>>Peterborough New Hampshire. 03458 ..... "
>>>Publisher Wayne Green W2NSD, Editor Paul Franson WA1CCH.
>>>Many thanks for any info or comments.
>>>Terry.
>>>
>>>
>>
>>No, the magazine died last fall (or was it the fall before?).
>>
>>Of course, it had changed quite a bit since 1966.
>
>
> But the projects were just as technically hopelessly unreliable, IMO.
>
>
73 had some good projects. Believe it or not, I started collecting
parts for a scope project in the nov '75 issue. It's
still under construction from time to time. By now I have all
the parts, and even etched the circuit boards. Interest has
wained from time to time since I now have a good tek scope
but I'd still like to put it together someday!

807. Re: '73 Magazine'?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-10 16:19:33 UTC
From: Ken Scharf <wa2mzeNOTTHIS@bellsouth.net>
Message-ID: <vCUHc.33442$XF5.20449@bignews4.bellsouth.net>
Source record: 24989

Terry wrote:
> Many thanks to all who replied.
> I found the article describing the decision to cease publishing; but
> searching could not found a source for any CDs.
> CDs would presumably be a very compact way to store 73 literature. Any URLS?
> Thanks again. Terry.
>
>
I wouldn't be too suprised if the ARRL someday started offering
CD's of 73. They got a hold of all the old HamRadio mag's on
CD (I thought CQ would get the rights to them. Maybe CQ will
get the rights to 73 if the ARRL doesn't).

808. Re: What sort of enclosures do you use ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-10 16:23:18 UTC
From: Williams <willi6@erols.com>
Message-ID: <40F017F6.D5C2B3C6@erols.com>
Source record: 24990

This may be an Urban Legend, but.....

Has anyone ever run into or hear of a situation where a radio "from the
good old days" of steel chassis, would not work when built on an
aluminum chassis?

It has been some time since I heard that, so I do not recall the
details. I suppose it might have something to do with inductance or
magnetic fields???

Curious minds, and all that...

73, Dave - K7HMP

Damien Teney wrote:
>
> Hello everybody,
> I just finished my first homebrew radio, a VHF receiver with PLL, and it's
> time to put it in a box ! I've often read that HF circuits should be put in
> metal boxes, but I don't know which one should choose. Are "sealed"
> enclosures such as this one
> http://www.velleman.be/common/product.Aspx?lan=1&id=7318
> better than boxes like that one
> http://www.velleman.be/common/product.Aspx?lan=1&id=11184 ?
>
> And do you think that plastic and ABS boxes are really bad for HF circuits ?
>
> Thanks for your answers !

809. Re: '73 Magazine'?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-10 16:25:05 UTC
From: "Gary S." <Idontwantspam@net>
Message-ID: <ao50f0lcak352tfdpqqp711egfphvf6khu@4ax.com>
Source record: 24991

On Sat, 10 Jul 2004 12:19:33 -0400, Ken Scharf
<wa2mzeNOTTHIS@bellsouth.net> wrote:

>Terry wrote:
>> Many thanks to all who replied.
>> I found the article describing the decision to cease publishing; but
>> searching could not found a source for any CDs.
>> CDs would presumably be a very compact way to store 73 literature. Any URLS?
>> Thanks again. Terry.
>>
>I wouldn't be too suprised if the ARRL someday started offering
>CD's of 73. They got a hold of all the old HamRadio mag's on
>CD (I thought CQ would get the rights to them. Maybe CQ will
>get the rights to 73 if the ARRL doesn't).

I agree.

Probably all tied up in the Chapter 7 process right now, but the
rights to selling back issues, on paper or on CD, would be a saleable
asset of the magazine.

It may take a couple of years for them to be sold to an outfit which
would be able to publish them, but there is certainly enough interest
in a narrow market to make it worth someone's while.

In theory, someone could also buy the rights to the magazine itself,
and restart publishing 73.

Happy trails,
Gary (net.yogi.bear)
---
at the 51st percentile of ursine intelligence

Gary D. Schwartz, Needham, MA, USA
Please reply to: garyDOTschwartzATpoboxDOTcom

810. Re: Help with A.R.R.L 1960 Handbook Project

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-10 18:21:42 UTC
From: clifto <clifto@clifto.com>
Message-ID: <mmo5s1-ee2.ln1@remote.clifto.com>
Source record: 24992

hamaddict wrote:
> Do you think that you might have handled it wrong? Don't take this the
> wrong way, but, why not stay in and attempt to change things? It seems
> that quitting is no more than giving up. If it made you that made then
> you go for the throat.

Back in 1965 when I first got my ticket, people were saying that I should join and help change the organization rather than refuse to join. It's been 39 years, and all those people who stayed to change the organization haven't changed the organization.

--
Spammers are people who are too lazy and cowardly to rob liquor stores, but still want to make money by stealing instead of working.
-- Morely Dotes, The Open Sourceror's Apprentice

811. Re: Help with A.R.R.L 1960 Handbook Project

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-10 19:25:02 UTC
From: mikea@mikea.ath.cx
Message-ID: <ccpfqe$1sk$3@puck.litech.org>
Source record: 24993

clifto <clifto@clifto.com> wrote:
> hamaddict wrote:
> > Do you think that you might have handled it wrong? Don't take this the
> > wrong way, but, why not stay in and attempt to change things? It seems
> > that quitting is no more than giving up. If it made you that made then
> > you go for the throat.

> Back in 1965 when I first got my ticket, people were saying that I should
> join and help change the organization rather than refuse to join. It's
> been 39 years, and all those people who stayed to change the organization
> haven't changed the organization.

Game, set, and match to Clifto.

--
If someone else can run arbitrary code on your computer
without your permission, it's not YOUR computer any more.
-- author unknown

812. Re: HP crystal Osc

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-10 19:48:39 UTC
From: Rick Karlquist N6RK <richard@karlquist.removethis.com>
Message-ID: <rKXHc.53423$MB3.51741@attbi_s04>
Source record: 24994

I was the project manager of the 5334B frequency counter.
It had an option to have a 10811 timebase. The standard
timebase, which I inherited from the 5334A design was
embarassingly bad, barely able to do 10 PPM. Unfortunately,
you cannot retrofit a 10811 to a 5334, because you need an
extra PC board. This board is required to be able to put
the 10811 on its side, because there isn't enough height for
it.

The gray market in used HP/Agilent test equipment is
really hurting Agilent in some products. My old division no
longer exists. I now work at Agilent Labs.

Rick N6RK

project manager for the
"John Walton" <jdwalton@comcast.net> wrote in message
news:79KdnT9Do-LQnW3dRVn-jg@comcast.com...
> One of the great things which the telecom bust did was to make the
equipment
> you designed at HP available to us experimenters -- I use my HP3586C
> Receiver's ovenized oscillator to drive my HP5334 frequency counter

813. Re: HP crystal Osc

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-10 20:03:44 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <MPG.1b59eb76492881ee9896d4@news-central.giganews.com>
Source record: 24995

In article <rKXHc.53423$MB3.51741@attbi_s04>,
richard@karlquist.removethis.com says...
> I was the project manager of the 5334B frequency counter.
> It had an option to have a 10811 timebase. The standard
> timebase, which I inherited from the 5334A design was
> embarassingly bad, barely able to do 10 PPM. Unfortunately,
> you cannot retrofit a 10811 to a 5334, because you need an
> extra PC board. This board is required to be able to put
> the 10811 on its side, because there isn't enough height for
> it.
>

Interesting. Could you shed some light on the timebase used in the
8566B and related analyzers circa 1984? The one I'm looking at doesn't
appear to be the standard 10544 or 10811 unit. I've never run across
one of these before in any other HP instruments. Is it just a
repackaged 10811?

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam
---

814. Re: Help with A.R.R.L 1960 Handbook Project

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-10 20:52:29 UTC
From: hamaddict <lefty@yahoo.com>
Message-ID: <5kl0f05aqm6ih0fq5f1i0einume9rl2615@4ax.com>
Source record: 24996

On Sat, 10 Jul 2004 19:25:02 +0000 (UTC), mikea@mikea.ath.cx (Mike Andrews) wrote:

>clifto <clifto@clifto.com> wrote:
>> hamaddict wrote:
>> > Do you think that you might have handled it wrong? Don't take this the
>> > wrong way, but, why not stay in and attempt to change things? It seems
>> > that quitting is no more than giving up. If it made you that made then
>> > you go for the throat.
>
>> Back in 1965 when I first got my ticket, people were saying that I should
>> join and help change the organization rather than refuse to join. It's
>> been 39 years, and all those people who stayed to change the organization
>> haven't changed the organization.
>
>Game, set, and match to Clifto.

naw...It's hard to win when you don't play. Who knows...Clifto could have been the straw that broke the camels back....we will never know now...

Lefty

815. Re: HP crystal Osc

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-10 21:23:42 UTC
From: hamaddict <lefty@yahoo.com>
Message-ID: <pgn0f05m7fis78thja4ek645hsvncgo9et@4ax.com>
Source record: 24897

On Sat, 10 Jul 2004 19:48:39 GMT, "Rick Karlquist N6RK"
<richard@karlquist.removethis.com> wrote:

>I was the project manager of the 5334B frequency counter.
>It had an option to have a 10811 timebase. The standard
>timebase, which I inherited from the 5334A design was
>embarassingly bad, barely able to do 10 PPM. Unfortunately,
>you cannot retrofit a 10811 to a 5334, because you need an
>extra PC board. This board is required to be able to put
>the 10811 on its side, because there isn't enough height for
>it.
>
>The gray market in used HP/Agilent test equipment is
>really hurting Agilent in some products. My old division no
>longer exists. I now work at Agilent Labs.
>
>Rick N6RK
>
>project manager for the
>"John Walton" <jdwalton@comcast.net> wrote in message
>news:79KdnT9Do-LQnW3dRVn-jg@comcast.com...
>> One of the great things which the telecom bust did was to make the
>equipment
>> you designed at HP available to us experimenters -- I use my HP3586C
>> Receiver's ovenized oscillator to drive my HP5334 frequency counter
>

Rick,

The 10811 that I have has a decal on it that reads "upgraded to series
3010". Do you know what that means?

thanks,
Lefty

816. Re: HP crystal Osc

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-10 22:41:59 UTC
From: Roger Gt <not@here.net>
Message-ID: <Xg_Hc.14356$FU.7658@newssvr27.news.prodigy.com>
Source record: 24898

"Rick Karlquist N6RK" <richard@karlquist.removethis.com> wrote in
message news:rKXHc.53423$MB3.51741@attbi_s04...
<snip>
:
: The gray market in used HP/Agilent test equipment is
: really hurting Agilent in some products. My old division no
: longer exists. I now work at Agilent Labs.
: Rick N6RK

Used equipment is NOT a "gray" market. Anyone who buys an
expensive piece of equipment is entitled to sell when they no
longer have a use for it.

817. Re: Wide Freq Range?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-10 23:10:29 UTC
From: jgboyles@aol.com
Message-ID: <20040710191029.16712.00000987@mb-m22.aol.com>
Source record: 24899

>What we need is a group devoted to off-topic posts. :-)

Yes. I think they have them, but I have never ventured there.
73 Gary N4AST

818. Re: HP crystal Osc

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-11 00:35:53 UTC
From: Rick Karlquist N6RK <richard@karlquist.removethis.com>
Message-ID: <JX%Hc.65061$Oq2.47948@attbi_s52>
Source record: 24900

"Roger Gt" <not@here.net> wrote in message
news:Xg_Hc.14356$FU.7658@newssvr27.news.prodigy.com...
>
> "Rick Karlquist N6RK" <richard@karlquist.removethis.com> wrote in
> message news:rKXHc.53423$MB3.51741@attbi_s04...
> <snip>
> :
> : The gray market in used HP/Agilent test equipment is
> : really hurting Agilent in some products. My old division no
> : longer exists. I now work at Agilent Labs.
> : Rick N6RK
>
>
> Used equipment is NOT a "gray" market. Anyone who buys an
> expensive piece of equipment is entitled to sell when they no
> longer have a use for it.

Only if they paid for it. Many customers went bankrupt.

819. Re: HP crystal Osc

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-11 00:37:16 UTC
From: Rick Karlquist N6RK <richard@karlquist.removethis.com>
Message-ID: <0Z%Hc.47987$JR4.43415@attbi_s54>
Source record: 24901

The various versions of 10811 have part numbers
of the form 10811-6XXXX. There are a few dozen
varieties. I've never heard of "series 3010" in reference
to 10811's.

Rick N6RK

"hamaddict" <lefty@yahoo.com> wrote in message
news:pgn0f05m7fis78thja4ek645hsvncgo9et@4ax.com...
> On Sat, 10 Jul 2004 19:48:39 GMT, "Rick Karlquist N6RK"
> <richard@karlquist.removethis.com> wrote:
>
> >I was the project manager of the 5334B frequency counter.
> >It had an option to have a 10811 timebase. The standard
> >timebase, which I inherited from the 5334A design was
> >embarassingly bad, barely able to do 10 PPM. Unfortunately,
> >you cannot retrofit a 10811 to a 5334, because you need an
> >extra PC board. This board is required to be able to put
> >the 10811 on its side, because there isn't enough height for
> >it.
> >
> >The gray market in used HP/Agilent test equipment is
> >really hurting Agilent in some products. My old division no
> >longer exists. I now work at Agilent Labs.
> >
> >Rick N6RK
> >
> >project manager for the
> >"John Walton" <jdwalton@comcast.net> wrote in message
> >news:79KdnT9Do-LQnW3dRVn-jg@comcast.com...
> >> One of the great things which the telecom bust did was to make the
> >equipment
> >> you designed at HP available to us experimenters -- I use my HP3586C
> >> Receiver's ovenized oscillator to drive my HP5334 frequency counter
> >>
>
> Rick,
>
> The 10811 that I have has a decal on it that reads "upgraded to series
> 3010". Do you know what that means?
>
> thanks,
> Lefty

820. Re: HP crystal Osc

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-11 00:44:11 UTC
From: Rick Karlquist N6RK <richard@karlquist.removethis.com>
Message-ID: <u30Ic.30548$WX.27086@attbi_s51>
Source record: 24902

I'm guessing that the 8566, being the flagship product, used the
deluxe version of the 10811 with RF connectors instead of
the edge card connector usually seen. The
two versions were designed with A and B suffixes originally,
and later with D and E suffixes. (I don't know what happened
to the C suffix). Inside the shielded box, the oscillator itself
is a normal 10811 series.

Rick N6RK

"John Miles" <jmiles@pop.removethistomailme.net> wrote in message
news:MPG.1b59eb76492881ee9896d4@news-central.giganews.com...
> In article <rKXHc.53423$MB3.51741@attbi_s04>,
> richard@karlquist.removethis.com says...
> > I was the project manager of the 5334B frequency counter.
> > It had an option to have a 10811 timebase. The standard
> > timebase, which I inherited from the 5334A design was
> > embarassingly bad, barely able to do 10 PPM. Unfortunately,
> > you cannot retrofit a 10811 to a 5334, because you need an
> > extra PC board. This board is required to be able to put
> > the 10811 on its side, because there isn't enough height for
> > it.
> >
>
> Interesting. Could you shed some light on the timebase used in the
> 8566B and related analyzers circa 1984? The one I'm looking at doesn't
> appear to be the standard 10544 or 10811 unit. I've never run across
> one of these before in any other HP instruments. Is it just a
> repackaged 10811?
>
> -- jm
>
> --
> http://www.qsl.net/ke5fx
> Note: My E-mail address has been altered to avoid spam
> --

821. Re: HP crystal Osc

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-11 02:01:27 UTC
From: Roger Gt <not@here.net>
Message-ID: <Xb1Ic.8868$gY1.302@newssvr25.news.prodigy.com>
Source record: 24903

"Rick Karlquist N6RK" <richard@karlquist.removethis.com> wrote in
message news:JX%Hc.65061$Oq2.47948@attbi_s52...
:
: "Roger Gt" <not@here.net> wrote in message
: news:Xg_Hc.14356$FU.7658@newssvr27.news.prodigy.com...
: >
: > "Rick Karlquist N6RK" <richard@karlquist.removethis.com> wrote
in
: > message news:rKXHc.53423$MB3.51741@attbi_s04...
: > <snip>
: > :
: > : The gray market in used HP/Agilent test equipment is
: > : really hurting Agilent in some products. My old division no
: > : longer exists. I now work at Agilent Labs.
: > : Rick N6RK
: >
: > Used equipment is NOT a "gray" market. Anyone who buys an
: > expensive piece of equipment is entitled to sell when they no
: > longer have a use for it.
:
: Only if they paid for it. Many customers went bankrupt.

Regardless! In a lease purchase, the leasing company has the
option to recover the property. If a bankrupt judgment was made,
it was sold as a tangible asset, no difference. However maybe it
IS an indication the price was too high? (If it bankrupt the
company.)

822. Re: HP crystal Osc

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-11 02:18:51 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <MPG.1b5a436545e81fcf9896d5@news-central.giganews.com>
Source record: 24904

In article <Xb1Ic.8868$gY1.302@newssvr25.news.prodigy.com>, not@here.net
says...
>
> "Rick Karlquist N6RK" <richard@karlquist.removethis.com> wrote in
> message news:JX%Hc.65061$Oq2.47948@attbi_s52...
> :
> : Only if they paid for it. Many customers went bankrupt.
>
> Regardless! In a lease purchase, the leasing company has the
> option to recover the property. If a bankrupt judgment was made,
> it was sold as a tangible asset, no difference. However maybe it
> IS an indication the price was too high? (If it bankrupt the
> company.)
>

Somehow, I don't think Agilent's price list is to blame for the telecom
bankruptcy wave. :-P

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam
---

823. Re: HP crystal Osc

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-11 02:20:24 UTC
From: hamaddict <lefty@yahoo.com>
Message-ID: <gt81f0dnomme07m0p9iomhig6kvt7renf5@4ax.com>
Source record: 24905

On Sun, 11 Jul 2004 00:37:16 GMT, "Rick Karlquist N6RK"
<richard@karlquist.removethis.com> wrote:

>The various versions of 10811 have part numbers
>of the form 10811-6XXXX. There are a few dozen
>varieties. I've never heard of "series 3010" in reference
>to 10811's.
>
>Rick N6RK
>
>"hamaddict" <lefty@yahoo.com> wrote in message
>news:pgn0f05m7fis78thja4ek645hsvncgo9et@4ax.com...
>> On Sat, 10 Jul 2004 19:48:39 GMT, "Rick Karlquist N6RK"
>> <richard@karlquist.removethis.com> wrote:
>>
>> >I was the project manager of the 5334B frequency counter.
>> >It had an option to have a 10811 timebase. The standard
>> >timebase, which I inherited from the 5334A design was
>> >embarassingly bad, barely able to do 10 PPM. Unfortunately,
>> >you cannot retrofit a 10811 to a 5334, because you need an
>> >extra PC board. This board is required to be able to put
>> >the 10811 on its side, because there isn't enough height for
>> >it.
>> >
>> >The gray market in used HP/Agilent test equipment is
>> >really hurting Agilent in some products. My old division no
>> >longer exists. I now work at Agilent Labs.
>> >
>> >Rick N6RK
>> >
>> >project manager for the
>> >"John Walton" <jdwalton@comcast.net> wrote in message
>> >news:79KdnT9Do-LQnW3dRVn-jg@comcast.com...
>> >> One of the great things which the telecom bust did was to make the
>> >equipment
>> >> you designed at HP available to us experimenters -- I use my HP3586C
>> >> Receiver's ovenized oscillator to drive my HP5334 frequency counter
>> >
>>
>> Rick,
>>
>> The 10811 that I have has a decal on it that reads "upgraded to series
>> 3010". Do you know what that means?
>>

>> thanks,
>> Lefty
>

It's actually a 10811-60111 with a seperate decal thats says 3010...I
was just curious.

thanks,

lefty

824. Re: Help with Vintage crystal unit

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-11 02:42:29 UTC
From: fmmck@aol.com
Message-ID: <20040710224229.25600.00001612@mb-m29.aol.com>
Source record: 24906

<< Hi, I have an old crystal unit quite large about the size of an average octal valve, metal circular, >>

Ron-

Does the cover come off? Are there screws holding it onto the base? If it isn't a hermetically sealed unit, it might be a crystal oven with a heating element and either a thermostat or proportional temperature control. Such an oven might have just about any frequency crystal inside.

If the unit is hermetically sealed, it may not be an oven, but could be a temperature-compensated precision crystal, perhaps something like 100 KHz or 10 MHz.

The 10/X C/2 doesn't ring a bell to me. I would examine the surface more closely and see if there is any other text painted, stamped or engraved anywhere on its surface.

73, Fred, K4DII

825. Re: Need data sheet for a NE2369 transistor

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-11 02:49:55 UTC
From: fmmck@aol.com
Message-ID: <20040710224955.25600.00001613@mb-m29.aol.com>
Source record: 24907

<< I am in need of a data sheet for a NE2369 transistor. >>

Craig-

Would the NE2369 be a replacement for the 2N2369? If so, the data might be similar.

73, Fred, K4DII

826. Re: HP crystal Osc

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-11 03:08:29 UTC
From: fmmck@aol.com
Message-ID: <20040710230829.25600.00001615@mb-m29.aol.com>
Source record: 24908

<< The 10811 that I have has a decal on it that reads "upgraded to series 3010". Do you know what that means? >>

Lefty-

The 10811-60111 that came in my used HP 5334B counter, had a blown thermal fuse. Upon considerable investigation, I found that it was a common problem and had been addressed by HP, using fuse with a higher temperature rating. It is possible that your 3010 refers to the thermal fuse upgrade.

Incidentally, the going price for a used 10811-60111 was around $100 a couple of years ago. I trusted a guy and ended up with a second unit that also had a blown thermal fuse!

73, Fred, K4DII

827. Re: HP crystal Osc

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-11 04:26:38 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <MPG.1b5a615a36fe2d339896d6@news-central.giganews.com>
Source record: 24909

In article <gt81f0dnomme07m0p9iomhig6kvt7renf5@4ax.com>, lefty@yahoo.com says...

> It's actually a 10811-60111 with a seperate decal thats says 3010...I

Possibly it refers to a production change that took place in the 10th week of 1990 (=60 + 30), in HP date code.

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam
---

828. Re: HP crystal Osc

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-11 06:41:23 UTC
From: Roger Gt <not@here.net>
Message-ID: <ni5Ic.89835$xC7.51999@newssvr29.news.prodigy.com>
Source record: 24910

"John Miles" <jmiles@pop.removethistomailme.net> wrote in message
news:MPG.1b5a436545e81fcf9896d5@news-central.giganews.com...
: In article <Xb1Ic.8868$gY1.302@newssvr25.news.prodigy.com>,
not@here.net
: says...
: >
: > "Rick Karlquist N6RK" <richard@karlquist.removethis.com> wrote
in
: > message news:JX%Hc.65061$Oq2.47948@attbi_s52...
: > :
: > : Only if they paid for it. Many customers went bankrupt.
: >
: > Regardless! In a lease purchase, the leasing company has the
: > option to recover the property. If a bankrupt judgment was
made,
: > it was sold as a tangible asset, no difference. However
maybe it
: > IS an indication the price was too high? (If it bankrupt the
: > company.)
: >
: Somehow, I don't think Agilent's price list is to blame for the
telecom
: bankruptcy wave. :-P
: -- jm

Yet the same bankrupt companies are somehow responsible for the
financial problems at Agilient? Get real.

829. Re: Is JB Weld Electrically conductive?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-11 09:33:14 UTC
From: mike@corn2.freeserve.co.uk
Message-ID: <40f1085d.308667262@news.freeserve.net>
Source record: 24911

On Sat, 10 Jul 2004 10:39:56 +0000, Scott <acepilot@bloomer.net>
wrote:

>I am modifying some DSS satellite feedhorns for use at 10 GHz.
>Wondering if JB Weld is electrically conductive after it sets up. I was
>thinking I would use JB Weld to build up the outside of the "waveguide"
>since after boring it out to 3/4" will only leave a wall thickness of
>about 1/16". That doesn't leave much meat for the two machine screws
>that will be used to mount the panel mount SMA connector to screw in to.
> That's only about 2.5 threads if I use 4-40 hardware or 3.5 threads if
>I use 2-56. Not sure what size holes are in the SMA, which will dictate
>which hardware will have to be used. God forbid if it takes a 6-32
>screw to do the job (2 threads). The mounting screws can not penetrate
>into the waveguide. Any other ideas?
>
>Something else I just thought of...once the JB Weld has set up, will I
>be able to tap threads into it?
>
>Scott
>N0EDV
>
Magic stuff, It will take tappings without problem, so long as there
is the material around it sufficient to hold it.

Strangely, here in UK, JB Weld is no longer available. I have a few
spare tubes and was asked if I would sell them to a local engineer
because he could'nt source the stuff anywhere.
atb Mike W.

830. WTD: HF Dummy Load for servicing

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-11 09:58:03 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <La8Ic.32613$eO.22466@edtnps89>
Source record: 24912

I find myself a TV tech, getting dumped on with older HAM rigs for repair
by newbie licenced HAM's with no vacuum tube experience.

I am in need of a decent 50 or 100 watt dummy load to properly align the
transmitters at full power.

I have stuff for trade or am willing to pay up to $20/USD for one shipped
to Canada, postal V0X 1X0.

Lemmie know if anyone can help :-)

My real email is geek <at> scorpiorising <dot> ca

Thanks all,

--
Gregg
It's probably useful, even if it can't be SPICE'd
http://geek.scorpiorising.ca

831. Re: Is JB Weld Electrically conductive?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-11 10:19:27 UTC
From: Paul_Morphy <paul_morphy2nospam@coolgoose.com>
Message-ID: <Pu8lc.82282$OB3.31617@bgtnsc05-news.ops.worldnet.att.net>
Source record: 24913

"Mike W" <mike@corn2.freeserve.co.uk> wrote in message
news:40f1085d.308667262@news.freeserve.net...

> Strangely, here in UK, JB Weld is no longer available. I have a few
> spare tubes and was asked if I would sell them to a local engineer
> because he could'nt source the stuff anywhere.
> atb Mike W.

See http://www.jbweld.co.uk/

Maybe you can become a distributor?

73,

"PM"

832. Re: HF Dummy Load for servicing

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-11 13:07:46 UTC
From: Ralph Mowery <rmowery28146@earthlink.net>
Message-ID: <CYaIc.98$Qu5.87@newsread2.news.pas.earthlink.net>
Source record: 24915

"Gregg" <nospam@unknown.org> wrote in message
news:La8Ic.32613$eO.22466@edtnps89...
> I find myself a TV tech, getting dumped on with older HAM rigs for repair
> by newbie licenced HAM's with no vacuum tube experience.
>
> I am in need of a decent 50 or 100 watt dummy load to properly align the
> transmitters at full power.
>
> I have stuff for trade or am willing to pay up to $20/USD for one shipped
> to Canada, postal V0X 1X0.
>

Outside of the usual ones on e-bay , as long as it is a tube transmitter you
can use a 100 watt lightbulb. While it is not a very good 50 ohm load the
tuning of a transmitter should let it work.

833. Re: HF Dummy Load for servicing

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-11 13:08:56 UTC
From: Highland Ham <abgm0csz.kn6whyz@ntlworld.com>
Message-ID: <IZaIc.282$3k3.34@newsfe2-gui.ntli.net>
Source record: 24914

> I find myself a TV tech, getting dumped on with older HAM rigs for repair
> by newbie licenced HAM's with no vacuum tube experience.
>
> I am in need of a decent 50 or 100 watt dummy load to properly align the
> transmitters at full power.
>
> I have stuff for trade or am willing to pay up to $20/USD for one shipped
> to Canada, postal V0X 1X0.
==========
Assuming that the HAM rigs you get for repair are for the HF bands (up to 29.7 MHz) and this being a radio homebrew NG ,may I suggest you make such a dummy load yourself.

Ingredients :
- 20 pcs 1KOhm-2W - 5% carbon- or metal-film resistors
- 1 pce Cacoa (all metal) circular tin or similar for example a paint tin.
- 2 pcs Jam jar lid having a diameter slightly less than the opening of the tin .
- 1 pce SO-239 socket with square flange and 4 holes (+ 2 suitable screws/nuts/seal washers) to suit PL-259 coax connector
- 1pce 150 mm (6inch) long thick copper wire ,dia 1 to 2 mm (not critical)
- 2 pcs Metal stand-off each having 2 tapped ends with screws (length 25-50 mm).

a) Drill 20 one mm holes (equally spaced) near the edge of both jam jar lids and tin area around the holes on both sides.
b) Drill a concentric hole (16 mm diameter) in one of the jam jar lids and a concentric 2mm dia hole in the other
c) Drill 2 pcs diametrically opposed 3mm dia hole in the lid with the 16mm hole using the SO-239 socket flange as a template.
d) Drill 1 concentric 16 mm dia hole in tin lid and after that use the SO-239 socket flange as a template to drill 4 holes (dia 3mm)in the tin lid
e) Fit the 2 stand-offs to 2 diametrically opposed holes in the jam jar lid with the 16 mm concentric hole with the lid's inside surface towards the stand-offs.
f) Cut resistors' wire ends leaving approx 5mm on both ends
h) Protrude remaining resistor wire ends through tinned holes in lid with fitted stand-offs and solder.
i) Do the same with the other jam jar lid (the one with the 2mm dia concentric hole) by pointing the lid's usual top towards the resistors and solder these to usual inside of lid . The 20 resistors are now sandwiched between the 2 jam jar lids .
j) Solder one end of the thick 6 inch long copper wire to the SO-239

connector and fit this connector with 2 diametrically opposed
bolts/nuts/washer to the tin lid
k) Protrude other end of 6inch long copper wire through concentric holes in
resistor package and fit the 2 stand-offs to the 2 remaining holes in SO-239
connector flange.
l) Finally solder copper wire to now bottom jam jar lid and cut-off excess
wire.

By putting the package inside the tin you now have a 40 Watts dummy load
It should be obvious that the resistor package must not make direct contact
with the tin.

You can increase the power rating of the dummy load by filling the tin with
oil . I have used motor oil for the past 18 years in a particular dummy load
with the resistance changing from 49.8 to 50.6 Ohms over that time.

However before using oil I would recommend sealing the tin's seams with
epoxy glue (the 2 components stuff) on the inside to prevent 'oil sweating
' through the seams.

With all the ingredients and required tools available ,the above should be a
1 evening's job.

Measured SWR (with MFJ 259B antenna analyser) is 1: 1.2 @ 29.7 MHz and
less at lower frequencies.

Although it is unlikely you will be testing the transmitters at full output
for any length of time ,the above dummy load will happily absorb 100 Watts
for 15 minutes if accommodated in a tin of not less than 1 litre (about 1
quarter US gallon)

Good Luck with this simple homebrew project.

Frank GM0CSZ / KN6WH

834. Re: WTD: HF Dummy Load for servicing

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-11 17:15:32 UTC
From: fmmck@aol.com
Message-ID: <20040711131532.23053.00001571@mb-m07.aol.com>
Source record: 24916

<< I am in need of a decent 50 or 100 watt dummy load to properly align the transmitters at full power. >>

Gregg-

Take a look at http://www.mfjenterprises.com/products.php?prodid=MFJ-260C for a dummy load that will withstand 300 watts for 30 seconds, or 25 watts continuosly.

It costs about twice what you mentioned, but is less than similar Bird models. If price is important, search E-Bay for dummy (load,antenna).

73, Fred, K4DII

835. Re: Hot etchant

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-11 17:53:07 UTC
From: Ken Scharf <wa2mzeNOTTHIS@bellsouth.net>
Message-ID: <_3flc.51562$w56.39017@bignews1.bellsouth.net>
Source record: 24917

Bob Liesenfeld wrote:
> Me again gang,
> I've been torturing myself this evening by drawing wee little lines on
> scraps of blank pc board material to make 'headers' for some surface
> mount ICs. In the past I've had the usual troubles with the resist
> (black Sharpie) being etched away before the rest of the board was
> done. I suppose most of us know that warmed etchant works faster than
> room temperature juice.
> In the past I have warmed my ferric chloride in the microwave. Well
> tonight I got a bit carried away. ;) I put about 4oz of juice in a
> plastic cup and nuked it for a full minute. Holy smokes! That stuff
> was *steaming*! So....."plop" goes my little homebrew surfboard into
> the brew. That puppy was fully etched in less than a minute!
> The microwave seems to still make popcorn and I am not in a coma (yet),
> so I guess I will call it a success. BTW, the Sharpie ink survived
> nicely.
>
> 72
> Bob WB0POQ
>
I've used IR lamps a few inches away from the FC
to heat it, works FB! I've also heard of people
using fishtank heaters (modified to short out the
regulator) as heaters in the etch bath.
Rocking the etch tray also helps, I've built a
rocking stage using a cam and a low rpm motor.

836. Re: Hot etchant .. iron on transfers

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-11 17:57:10 UTC
From: Ken Scharf <wa2mzeNOTTHIS@bellsouth.net>
Message-ID: <N7fIc.43914$9t6.21955@bignews3.bellsouth.net>
Source record: 24918

Bob Liesenfeld wrote:
> Me again gang,
> I've been torturing myself this evening by drawing wee little lines on
> scraps of blank pc board material to make 'headers' for some surface
> mount ICs. In the past I've had the usual troubles with the resist
> (black Sharpie) being etched away before the rest of the board was
> done. I suppose most of us know that warmed etchant works faster than
> room temperature juice.
> In the past I have warmed my ferric chloride in the microwave. Well
> tonight I got a bit carried away. ;) I put about 4oz of juice in a
> plastic cup and nuked it for a full minute. Holy smokes! That stuff
> was *steaming*! So....."plop" goes my little homebrew surfboard into
> the brew. That puppy was fully etched in less than a minute!
> The microwave seems to still make popcorn and I am not in a coma (yet),
> so I guess I will call it a success. BTW, the Sharpie ink survived
> nicely.
>
> 72
> Bob WB0POQ
>
On a related subject...
As anybody used those iron on transfer sheets to make
pc boards using a laser printer or photo copyier?
There was a brand call blue..something or something..blue
I forget the exact name. I used a sample of this a few
years back and it worked much better than the kind that
relied only on the toner as resist.

837. Re: WTD: HF Dummy Load for servicing

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-11 18:06:43 UTC
From: Ken Scharf <wa2mzeNOTTHIS@bellsouth.net>
Message-ID: <LgfIc.51689$w56.19896@bignews1.bellsouth.net>
Source record: 24919

Gregg wrote:
> I find myself a TV tech, getting dumped on with older HAM rigs for repair
> by newbie licenced HAM's with no vacuum tube experience.
>
> I am in need of a decent 50 or 100 watt dummy load to properly align the
> transmitters at full power.
>
> I have stuff for trade or am willing to pay up to $20/USD for one shipped
> to Canada, postal V0X 1X0.
>
> Lemmie know if anyone can help :-)
>
> My real email is geek <at> scorpiorising <dot> ca
>
> Thanks all,
>
What you want is the Heath 'Cantenna'. These show up on ebay
from time to time. Back in the 60's 70's, and 80's almost every
ham had one so they are not very rare. They do have a small
problem, the brass bands that attach the resistor element to the
unit break in half after many years of use (either from metal
fatigue or chemical reaction to the 'oil') and will have to be
replaced. Small hose clamps may work, or you will have to make
your own from sheet brass. Also many of these were filled with
'transformer oil' obtained from the local power company. While
this stuff had ideal thermal and electrial properties for the
job, it was a hazardous chemical that shouldn't be allowed to
get on the skin, or disposed of to seek into the ground water
table. (CANCEROUS!).

An equivalent to the Cantenna is still being sold by MFJ Enterprises.

838. Re: HF Dummy Load for servicing

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-11 18:50:46 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <a_flc.32668$eO.19437@edtnps89>
Source record: 24920

Behold, Ralph Mowery signalled from keyed 4-1000A filament:

> "Gregg" <nospam@unknown.org> wrote in message
> news:La8Ic.32613$eO.22466@edtnps89...
>> I find myself a TV tech, getting dumped on with older HAM rigs for
>> repair by newbie licenced HAM's with no vacuum tube experience.
>>
>> I am in need of a decent 50 or 100 watt dummy load to properly align
>> the transmitters at full power.
>>
>> I have stuff for trade or am willing to pay up to $20/USD for one
>> shipped to Canada, postal V0X 1X0.
>>
>>
> Outside of the usual ones on e-bay , as long as it is a tube transmitter
> you can use a 100 watt lightbulb. While it is not a very good 50 ohm
> load the tuning of a transmitter should let it work.

That's what I ended up using after I boiled the water in my
immersion-cooled 47R/2W resistor, but didn't know if that was sufficient
;-)

Thanks.

--
Gregg
It's probably useful, even if it can't be SPICE'd
http://geek.scorpiorising.ca

839. Re: WTD: HF Dummy Load for servicing

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-11 18:52:56 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <c0gIc.32670$eO.13317@edtnps89>
Source record: 24921

Behold, Ken Scharf signalled from keyed 4-1000A filament:

> Gregg wrote:
>> I find myself a TV tech, getting dumped on with older HAM rigs for
>> repair by newbie licenced HAM's with no vacuum tube experience.
>>
>> I am in need of a decent 50 or 100 watt dummy load to properly align
>> the transmitters at full power.
>>
>> I have stuff for trade or am willing to pay up to $20/USD for one
>> shipped to Canada, postal V0X 1X0.
>>
>> Lemmie know if anyone can help :-)
>>
>> My real email is geek <at> scorpiorising <dot> ca
>>
>> Thanks all,
>>
> What you want is the Heath 'Cantenna'. These show up on ebay from time
> to time. Back in the 60's 70's, and 80's almost every ham had one so
> they are not very rare. They do have a small problem, the brass bands
> that attach the resistor element to the unit break in half after many
> years of use (either from metal fatigue or chemical reaction to the
> 'oil') and will have to be replaced. Small hose clamps may work, or you
> will have to make your own from sheet brass. Also many of these were
> filled with 'transformer oil' obtained from the local power company.
> While this stuff had ideal thermal and electrial properties for the job,
> it was a hazardous chemical that shouldn't be allowed to get on the
> skin, or disposed of to seek into the ground water table. (CANCEROUS!).
>
> An equivalent to the Cantenna is still being sold by MFJ Enterprises.

I had one of those! :-)

I used Shell Turbine Oil instead of the PCB stuff. Blew it on a 4KW 11M
linear a friend brought from Holland :-(

--
Gregg
It's probably useful, even if it can't be SPICE'd
http://geek.scorpiorising.ca

840. Re: WTD: HF Dummy Load for servicing

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-11 18:53:57 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <91gIc.32671$eO.17138@edtnps89>
Source record: 24922

Behold, Fred McKenzie signalled from keyed 4-1000A filament:

> << I am in need of a decent 50 or 100 watt dummy load to properly align
> the transmitters at full power. >>
>
> Gregg-
>
> Take a look at
> http://www.mfjenterprises.com/products.php?prodid=MFJ-260C for a dummy
> load that will withstand 300 watts for 30 seconds, or 25 watts
> continuosly.
>
> It costs about twice what you mentioned, but is less than similar Bird
> models. If price is important, search E-Bay for dummy (load,antenna).
>
> 73, Fred, K4DII

Hi Fred,

I think I'll go the ebay route.

If I get paid before finding it on Ebay, I'll take the DIY advice here ;-)

--
Gregg
It's probably useful, even if it can't be SPICE'd
http://geek.scorpiorising.ca

841. Re: HF Dummy Load for servicing

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-11 18:56:10 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <e3gIc.32673$eO.28205@edtnps89>
Source record: 24923

Behold, Highland Ham signalled from keyed 4-1000A filament:

>> I find myself a TV tech, getting dumped on with older HAM rigs for
>> repair by newbie licenced HAM's with no vacuum tube experience.
>>
>> I am in need of a decent 50 or 100 watt dummy load to properly align
>> the transmitters at full power.
>>
>> I have stuff for trade or am willing to pay up to $20/USD for one
>> shipped to Canada, postal V0X 1X0.
> ========================
> Assuming that the HAM rigs you get for repair are for the HF bands (up
> to 29.7 MHz) and this being a radio homebrew NG ,may I suggest you make
> such a dummy load yourself.

Thank you!

Aye, I sure can DIY and have done those, but I was very lazy this time and
just took a boo for one that might be available ;-)

I like yours and Fred's ebay suggestion best and will go with one of
those.

Thank you all for your replies!

Take care,

--
Gregg
It's probably useful, even if it can't be SPICE'd
http://geek.scorpiorising.ca

842. Re: Hot etchant .. iron on transfers

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-11 19:34:43 UTC
From: Leon Heller <leon_heller@hotmail.com>
Message-ID: <40f19654$0$6446$cc9e4d1f@news-text.dial.pipex.com>
Source record: 24924

"Ken Scharf" <wa2mzeNOTTHIS@bellsouth.net> wrote in message
news:N7fIc.43914$9t6.21955@bignews3.bellsouth.net...
> Bob Liesenfeld wrote:
> > Me again gang,
> > I've been torturing myself this evening by drawing wee little lines on
> > scraps of blank pc board material to make 'headers' for some surface
> > mount ICs. In the past I've had the usual troubles with the resist
> > (black Sharpie) being etched away before the rest of the board was
> > done. I suppose most of us know that warmed etchant works faster than
> > room temperature juice.
> > In the past I have warmed my ferric chloride in the microwave. Well
> > tonight I got a bit carried away. ;) I put about 4oz of juice in a
> > plastic cup and nuked it for a full minute. Holy smokes! That stuff
> > was *steaming*! So....."plop" goes my little homebrew surfboard into
> > the brew. That puppy was fully etched in less than a minute!
> > The microwave seems to still make popcorn and I am not in a coma (yet),
> > so I guess I will call it a success. BTW, the Sharpie ink survived
> > nicely.
> >
> > 72
> > Bob WB0POQ
> >
> On a related subject...
> As anybody used those iron on transfer sheets to make
> pc boards using a laser printer or photo copyier?
> There was a brand call blue..something or something..blue
> I forget the exact name. I used a sample of this a few
> years back and it worked much better than the kind that
> relied only on the toner as resist.

I've used Press 'n Peel Blue film, it works fairly well. Glossy paper works
just as well and is a lot cheaper. I use the standard UV exposure technique
with very good results.

73, Leon
--
Leon Heller, G1HSM
http://www.geocities.com/leon_heller

843. ascom translator

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-11 23:58:54 UTC
From: pdrunen@aol.com
Message-ID: <20040711195854.05881.00001799@mb-m05.aol.com>
Source record: 24925

Hi Group,

I have a small box that is made by a company called ascom. It appears to be a vintage item from around the 70's. It has two push buttons for selection of channel 1 or 2.

On the back is a connection to an HF rig and the unit is suppose to mix down freq in the range of 30-50 MHz and be used with an HF rig has an IF to receive signals in the 6 meter band.

Anyone remember the Ascom? Anyone have a schematic?

de KJ4UO

844. FS/FT Composition Resistors

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-12 00:41:41 UTC
From: Bill A <Bil@nowhere.net>
Message-ID: <9hn3f0hi0lukspqmobnkvsr28as5np76va@4ax.com>
Source record: 24926

Some brand new composition resistors followed me home from a fest
today. More than I can use! I have 50 to 100 of each value. These
are
Allen-Bradley 5% just like used in the original equipment. I
have the following:

47 ohms, 390 ohms and 1200 ohms--- all 1/2 watt

15 ohms and 180 ohms --------- all 1 watt

All are still in their plastic wrappers. Will trade for your excess
or
sell if you don't have anything to trade.

Thanks,

Bill

wabateATdandyDOTnet

---

845. Re: WTD: HF Dummy Load for servicing

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-12 00:50:34 UTC
From: cliff <cliff@nospam.com>
Message-ID: <40F1E059.919F17BA@nospam.com>
Source record: 24927

hi gregg,

check ebay, do search on decibel dummy and you will
find many nice 100w units n connector removed from
cell service, about $ 10 usd + up.

regards,

gregg

Gregg wrote:

> I find myself a TV tech, getting dumped on with older HAM rigs for repair
> by newbie licenced HAM's with no vacuum tube experience.
>
> I am in need of a decent 50 or 100 watt dummy load to properly align the
> transmitters at full power.
>
> I have stuff for trade or am willing to pay up to $20/USD for one shipped
> to Canada, postal V0X 1X0.
>
> Lemmie know if anyone can help :-)
>
> My real email is geek <at> scorpiorising <dot> ca
>
> Thanks all,
>
> --
> Gregg
> *It's probably useful, even if it can't be SPICE'd*
> http://geek.scorpiorising.ca

846. Re: WTD: HF Dummy Load for servicing

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-12 00:53:44 UTC
From: cliff <cliff@nospam.com>
Message-ID: <40F1E117.4B52CECA@nospam.com>
Source record: 24928

hi all,

if you ever need replacement mineral oil for the dummy loads,
stop by the local veterinary supply house, the have it in
gallon bottles about $ 12 or so, and no funny looks.

It is used on the farm and for livestock so low cost.

cliff

Gregg wrote:

> Behold, Ken Scharf signalled from keyed 4-1000A filament:
>
> > Gregg wrote:
> >> I find myself a TV tech, getting dumped on with older HAM rigs for
> >> repair by newbie licenced HAM's with no vacuum tube experience.
> >>
> >> I am in need of a decent 50 or 100 watt dummy load to properly align
> >> the transmitters at full power.
> >>
> >> I have stuff for trade or am willing to pay up to $20/USD for one
> >> shipped to Canada, postal V0X 1X0.
> >>
> >> Lemmie know if anyone can help :-)
> >>
> >> My real email is geek <at> scorpiorising <dot> ca
> >>
> >> Thanks all,
> >>
> > What you want is the Heath 'Cantenna'. These show up on ebay from time
> > to time. Back in the 60's 70's, and 80's almost every ham had one so
> > they are not very rare. They do have a small problem, the brass bands
> > that attach the resistor element to the unit break in half after many
> > years of use (either from metal fatigue or chemical reaction to the
> > 'oil') and will have to be replaced. Small hose clamps may work, or you
> > will have to make your own from sheet brass. Also many of these were
> > filled with 'transformer oil' obtained from the local power company.
> > While this stuff had ideal thermal and electrial properties for the job,
> > it was a hazardous chemical that shouldn't be allowed to get on the
> > skin, or disposed of to seek into the ground water table. (CANCEROUS!).
> >
> > An equivalent to the Cantenna is still being sold by MFJ Enterprises.
>
> I had one of those! :-)
>

> I used Shell Turbine Oil instead of the PCB stuff. Blew it on a 4KW 11M
> linear a friend brought from Holland :-(
>
> --
> Gregg
> *It's probably useful, even if it can't be SPICE'd*
> http://geek.scorpiorising.ca

847. Re: Is JB Weld Electrically conductive?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-12 02:02:45 UTC
From: j999w@aol.com
Message-ID: <20040711220245.19433.00001122@mb-m17.aol.com>
Source record: 24929

I can't find it here in Milwaukee, WI either.

jw

848. PO for 1500p of Attenuators - 50 Ohm*GAAS MMIC 50Mhz*3GHz

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-12 10:43:27 UTC
From: penuries@penuries.com
Message-ID: <95553ff3.0407120243.2b525caf@posting.google.com>
Source record: 24930

Dear Sir

We have a PO

for

PO for 1500p of Attenuators - 50 Ohm*GAAS MMIC 50Mhz*3GHz

Manufacturer is = Advance Technology Division Alpha

Can u help ?

Cordialement
Yves SOUSSI

http://www.datasheet1.com

WEB SITE IN FRENCH = http://www.penuries.com
WEB SITE IN ENGLISH = http://www.electronic-components-1.com
@activeweb1

849. Re: PLL for VHF receiver (see attached files)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-12 12:08:58 UTC
From: dteney@hotmail.com
Message-ID: <4cb5c804.0407120408.4494c92f@posting.google.com>
Source record: 24931

If anyone else has got the answer, come on, post !

> Yes, that also sounds for me the best thing to do (improving buffer
> between VCO and PLL). Well, I'm not experienced with such circuits, so
> could you just explain how to bias the FET.
>
>
> VCO o-||-- S-D --||--o OUT TO PLL
> ^ FET=MPF102 or stg like that
> G
> |
> o----------------o GND
>
>
> And one last thing, could you re-explain how you advise to shield the
> FET ? I don't see what you mean :-(
>
> Thanks for your answer ;-)

850. Re: PLL for VHF receiver (see attached files)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-12 12:44:01 UTC
From: farhan@phonestack.com
Message-ID: <fcc11bcf.0407120444.2c16e14f@posting.google.com>
Source record: 24932

dteney@hotmail.com (Damien Teney) wrote in message
news:<4cb5c804.0407100742.77d93d19@posting.google.com>...

> And one last thing, could you re-explain how you advise to shield the
> FET ? I don't see what you mean :-(
>
> Thanks for your answer ;-)

let me explain this a little more visually.

to begin with, i imagine that you are building this ugly style over a
copper clad board. Now, imagine that you have soldered another piece
of copper clad board (about an inch high and 2 inches across) so that
stands vertically at ninety degrees from the base board.
Now imagine that you have cut out a small mouse hole in this 'wall'.
The size of the mouse hole is just enough to let the FET's body (and
not the leads) pass through.
You take an FET, bend its drain and source to ninety degrees and away
from the FET body. Now you slide the FET into the mouse hole. Bend
down the gate and solder it to the base copper clad board.The source
and drain leads should be on either sides of this wall (the sheild).
this will prevent the source and drain from coupling the energy back
to each other.

- farhan

851. Re: Hot etchant .. iron on transfers

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-12 13:58:20 UTC
From: Joe <nuisancewildlife@nospamearthlink.net>
Message-ID: <0OwIc.4353$kK.4281@newsread3.news.atl.earthlink.net>
Source record: 24933

"Ken Scharf" <wa2mzeNOTTHIS@bellsouth.net> wrote in message
news:N7fIc.43914$9t6.21955@bignews3.bellsouth.net...
> Bob Liesenfeld wrote:
> > Me again gang,
> > I've been torturing myself this evening by drawing wee little lines on
> > scraps of blank pc board material to make 'headers' for some surface
> > mount ICs. In the past I've had the usual troubles with the resist
> > (black Sharpie) being etched away before the rest of the board was
> > done. I suppose most of us know that warmed etchant works faster than
> > room temperature juice.
> > In the past I have warmed my ferric chloride in the microwave. Well
> > tonight I got a bit carried away. ;) I put about 4oz of juice in a
> > plastic cup and nuked it for a full minute. Holy smokes! That stuff
> > was *steaming*! So....."plop" goes my little homebrew surfboard into
> > the brew. That puppy was fully etched in less than a minute!
> > The microwave seems to still make popcorn and I am not in a coma (yet),
> > so I guess I will call it a success. BTW, the Sharpie ink survived
> > nicely.
> >
> > 72
> > Bob WB0POQ
> >
> On a related subject...
> As anybody used those iron on transfer sheets to make
> pc boards using a laser printer or photo copyier?
> There was a brand call blue..something or something..blue
> I forget the exact name. I used a sample of this a few
> years back and it worked much better than the kind that
> relied only on the toner as resist.

Hi Bob,

I don't know if this has already been posted, I tuned into this thread a
little late, but you should check out this link:

http://www.fullnet.com/u/tomg/gooteepc.htm

I was using transparencies from the local copier place, but this method
seems to work much better.

Joe
KB1KVI

852. Re: HP crystal Osc

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-12 15:18:20 UTC
From: Rick Karlquist N6RK <richard@karlquist.removethis.com>
Message-ID: <0ZxIc.58659$JR4.11986@attbi_s54>
Source record: 24934

AFAIK, the 3010 sticker has nothing to do with the thermal
fuse issue. The thermal fuse was a debacle from the get go.
If your fuse fails, just replace it with a piece of wire. Ovens
very rarely run away. It is far more likely the fuse will fail
or its socket will corrode (can't solder it in because the solder
would melt the fuse). If the oven does run away, the heater
transistors will open up and serve as fuses.

Rick N6RK

"Fred McKenzie" <fmmck@aol.com> wrote in message
news:20040710230829.25600.00001615@mb-m29.aol.com...
> << The 10811 that I have has a decal on it that reads "upgraded to series
> 3010". Do you know what that means? >>
>
> Lefty-
>
> The 10811-60111 that came in my used HP 5334B counter, had a blown thermal
> fuse. Upon considerable investigation, I found that it was a common
problem
> and had been addressed by HP, using fuse with a higher temperature rating.
It
> is possible that your 3010 refers to the thermal fuse upgrade.
>
> Incidentally, the going price for a used 10811-60111 was around $100 a
couple
> of years ago. I trusted a guy and ended up with a second unit that also
had a
> blown thermal fuse!
>
> 73, Fred, K4DII
>

853. New Program - XTL_SET.exe

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-12 15:44:23 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <ccubkn$8fi$1@hercules.btinternet.com>
Source record: 24935

New program XTL_SET.exe

About 60 kilobytes.

This program is both practical and educational. It is based on two loosely-coupled tuned circuits. There are several applications. The circuit of a 'crystal set' is illustrated. Tuned circuit L and C settings and the coefficient of coupling between the two coils can be varied from the keyboard while observing how signal power and voltage levels change at several points during a tuning-up operation.

The signal source is a broadcast transmitter of adjustable power output which radiates a groundwave. The radio path distance and ground path resistivity are also adjustable. A simple inverted-L receiving antenna of given length provides the signal for the receiver.

Download XTL_SET in a few seconds from website below and run immediately.

....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
....

854. Re: PLL for VHF receiver (see attached files)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-12 15:48:58 UTC
From: Damien Teney <damien.teney@sobelairva.net>
Message-ID: <D-OdnW3H5c53L2_dRVn-sw@scarlet.biz>
Source record: 24936

Thanks I've understood what you mean ;-)

> bias the FET for nominal current at about half the Idss.

As I'm not (yet) familiar with such circuits, so could you tell me how to do this :-$? Thanks.

Damien

855. Re: PLL for VHF receiver (see attached files)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-12 18:14:01 UTC
From: dplatt@radagast.org
Message-ID: <10f5l79mmdc6841@corp.supernews.com>
Source record: 24937

In article <fcc11bcf.0407120444.2c16e14f@posting.google.com>,
Ashhar Farhan <farhan@phonestack.com> wrote:

>let me explain this a little more visually.
>
>to begin with, i imagine that you are building this ugly style over a
>copper clad board. Now, imagine that you have soldered another piece
>of copper clad board (about an inch high and 2 inches across) so that
>stands vertically at ninety degrees from the base board.
>Now imagine that you have cut out a small mouse hole in this 'wall'.
>The size of the mouse hole is just enough to let the FET's body (and
>not the leads) pass through.
>You take an FET, bend its drain and source to ninety degrees and away
>from the FET body. Now you slide the FET into the mouse hole. Bend
>down the gate and solder it to the base copper clad board.The source
>and drain leads should be on either sides of this wall (the sheild).
>this will prevent the source and drain from coupling the energy back
>to each other.

A slight variation on this approach, which I've seen recommended for
use with U310 (TO-52 metal case) is to actually drill a small hole
downwards through the "ugly-style" copperclad, just barely large
enough to admit the body of the JFET. Drop the JFET into the hole -
it's fine if the metal case contacts the copper, as the case and gate
are connected together. Bend the source and drain out sidewise, leave
the gate lead sticking up in the air, put the shielding piece of
copperclad with the "mouse hole" into place, solder it to the board,
and then solder the gate lead to the copperclad on one side of the
shield.

This results in a very short, low-inductance connection of the gate to
ground.

This technique would probably work just about as well with a J310 or
similar TO-92 plastic-package JFET, although it won't give the
additional benefit of grounding/shielding via the metal case.

As to the U310 - anyone know of a convenient source? I haven't seen
anyone selling old-stock U310s on the Net, and there's only one
manufacturer I know of making them (Linear Systems).

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

856. Re: HP crystal Osc

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-12 20:44:41 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <MPG.1b5c98165102a0e79896d9@news-central.giganews.com>
Source record: 24938

In article <0ZxIc.58659$JR4.11986@attbi_s54>,
richard@karlquist.removethis.com says...
> AFAIK, the 3010 sticker has nothing to do with the thermal
> fuse issue. The thermal fuse was a debacle from the get go.
> If your fuse fails, just replace it with a piece of wire. Ovens
> very rarely run away. It is far more likely the fuse will fail
> or its socket will corrode (can't solder it in because the solder
> would melt the fuse). If the oven does run away, the heater
> transistors will open up and serve as fuses.
>

I'd always assumed it was there to avoid heat-damage to the expensive
part (the crystal). Unfortunately, it was mounted far outside the
thermal enclosure for the crystal and its oven, so it's unlikely to
detect any failure condition short of a house fire.

-- jm

---

http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

---

857. Cancel "Re: Antenna Preamp"

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-12 21:08:55 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <1fv5f01t9hq16sljo34uklk8oonjsf8vbv@4ax.com>
Source record: 24939

J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

858. HP Spectrum Modules Available...Parts Only

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-13 00:37:49 UTC
From: Norm VE3CZI <ve3czi@arrl.net>
Message-ID: <LaGIc.39973$_V4.12081@read1.cgocable.net>
Source record: 24940
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.space,rec.radio.swap

I have available the following HP Spectrum Modules that are in
NON-OPERATIONAL Condition. I am sure someone out there can repair them OR
can use the VHF/UHF Components.
I am not sure what they would be worth, so am asking that if you are
interested, from the pictures, you would make a reasonable offer....Shipping
extra.

Thanks for looking....73...Norm VE3CZI

HP 8555A RF Section
1.5 Mhz to 43.5 Ghz in 14 Bands
http://home.cogeco.ca/~rodemi/Images%20%5bMISC%5d/HP%208555A%20RF%20Section.jpg

HP 8554B RF Section
0 - 1200 Mhz
http://home.cogeco.ca/~rodemi/Images%20%5bMISC%5d/HP%208554B%20RF%20Section.jpg

HP 8552B IF Section
http://home.cogeco.ca/~rodemi/Images%20%5bMISC%5d/HP%208552B%20IF%20Section.jpg

HP 141 Main Assy [NOTE: This main frame is too large to ship, so will be
a pickup ONLY in Southern Ontario]
http://home.cogeco.ca/~rodemi/Images%20%5bMISC%5d/HP%20141%20Main%20Assy.jpg

859. Re: HP crystal Osc

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-13 03:11:51 UTC
From: fmmck@aol.com
Message-ID: <20040712231151.12124.00001642@mb-m01.aol.com>
Source record: 24941

<< Ovens
very rarely run away. It is far more likely the fuse will fail
or its socket will corrode (can't solder it in because the solder
would melt the fuse). If the oven does run away, the heater
transistors will open up and serve as fuses >>

Rick-

I've seen photos of these ovens on E-Bay, that had been stained by smoke coming out of the adjustment hole. I'd rather have some kind of protection.

I believe the oven uses proportional control, so the transistors' maximum dissipation would occur when the heating element is half on. In a "runaway" mode, the transistors would be switched on with maximum current but nearly zero voltage. Also, one transistor failure mode is a short-circuit.

With regard to John Miles' comment about the thermal fuse being to far from the oven's heating element to be effective, perhaps that is true. However, the earlier thermal fuse was rated at 108 degrees C, and it occasionally would open in an oven that was apparently operating correctly in the range of 80 to 84 degrees C. The newer fuse is rated at 115 degrees C. I suspect the problem is that it is opening due to a combination of time and temperature, not temperature alone.

I've been running one of the new parts for about two years without a hitch. The frequency has not been adjusted since about two years ago, and it still takes 15 or 20 seconds to drift one Hz against a 10 MHz rubidium oscillator.

That HP 5334B is one nice counter!

73, Fred, K4DII

860. Re: HP crystal Osc

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-13 03:52:16 UTC
From: Rick Karlquist N6RK <richard@karlquist.removethis.com>
Message-ID: <Q%IIc.64441$a24.4977@attbi_s03>
Source record: 24942

The crystal will not be damaged by any temperature the oven
is capable of.

Rick N6RK

"John Miles" <jmiles@pop.removethistomailme.net> wrote in message
news:MPG.1b5c98165102a0e79896d9@news-central.giganews.com...
>
> I'd always assumed it was there to avoid heat-damage to the expensive
> part (the crystal). Unfortunately, it was mounted far outside the
> thermal enclosure for the crystal and its oven, so it's unlikely to
> detect any failure condition short of a house fire.
>
> -- jm

861. Re: HP crystal Osc

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-13 03:52:51 UTC
From: Rick Karlquist N6RK <richard@karlquist.removethis.com>
Message-ID: <n0JIc.64241$MB3.59709@attbi_s04>
Source record: 24943

The insulation turns brown with age even in the absence
of smoke.

Rick N6RK

"Fred McKenzie" <fmmck@aol.com> wrote in message
news:20040712231151.12124.00001642@mb-m01.aol.com...
> << Ovens
> very rarely run away. It is far more likely the fuse will fail
> or its socket will corrode (can't solder it in because the solder
> would melt the fuse). If the oven does run away, the heater
> transistors will open up and serve as fuses >>
>
> Rick-
>
> I've seen photos of these ovens on E-Bay, that had been stained by smoke
coming
> out of the adjustment hole. I'd rather have some kind of protection.
>
> I believe the oven uses proportional control, so the transistors' maximum
> dissipation would occur when the heating element is half on. In a
"runaway"
> mode, the transistors would be switched on with maximum current but nearly
zero
> voltage. Also, one transistor failure mode is a short-circuit.
>
> With regard to John Miles' comment about the thermal fuse being to far
from the
> oven's heating element to be effective, perhaps that is true. However,
the
> earlier thermal fuse was rated at 108 degrees C, and it occasionally would
open
> in an oven that was apparently operating correctly in the range of 80 to
84
> degrees C. The newer fuse is rated at 115 degrees C. I suspect the
problem is
> that it is opening due to a combination of time and temperature, not
> temperature alone.
>
> I've been running one of the new parts for about two years without a
hitch.
> The frequency has not been adjusted since about two years ago, and it
still
> takes 15 or 20 seconds to drift one Hz against a 10 MHz rubidium
oscillator.

>
> That HP 5334B is one nice counter!
>
> 73, Fred, K4DII
>

862. Re: HP Spectrum Modules Available...Parts Only

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-13 03:54:35 UTC
From: Rick Karlquist N6RK <richard@karlquist.removethis.com>
Message-ID: <%1JIc.64245$MB3.14457@attbi_s04>
Source record: 24944
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.space,rec.radio.swap

I have several 8555's with dirty attenuators, otherwise working.
Anyone interested?

Rick N6RK
(remove "removethis" from email address)

"Norm VE3CZI" <ve3czi@ arrl.net> wrote in message
news:LaGIc.39973$_V4.12081@read1.cgocable.net...
> I have available the following HP Spectrum Modules that are in
> NON-OPERATIONAL Condition. I am sure someone out there can repair them OR
> can use the VHF/UHF Components.
> I am not sure what they would be worth, so am asking that if you are
> interested, from the pictures, you would make a reasonable
offer....Shipping
> extra.
>
> Thanks for looking....73...Norm VE3CZI
>
> HP 8555A RF Section
> 1.5 Mhz to 43.5 Ghz in 14 Bands
>
http://home.cogeco.ca/~rodemi/Images%20%5bMISC%5d/HP%208555A%20RF%20Section.jpg
>
> HP 8554B RF Section
> 0 - 1200 Mhz
>
http://home.cogeco.ca/~rodemi/Images%20%5bMISC%5d/HP%208554B%20RF%20Section.jpg
>
> HP 8552B IF Section
>
http://home.cogeco.ca/~rodemi/Images%20%5bMISC%5d/HP%208552B%20IF%20Section.jpg
>
> HP 141 Main Assy [NOTE: This main frame is too large to ship, so will
be
> a pickup ONLY in Southern Ontario]
>
http://home.cogeco.ca/~rodemi/Images%20%5bMISC%5d/HP%20141%20Main%20Assy.jpg
>
>
>
>
>
>

863. Re: HP Spectrum Modules Available...Parts Only

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-13 03:58:10 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <m5JIc.18602$iw3.4640@clgrps13>
Source record: 24945
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.space,rec.radio.swap

Behold, Norm VE3CZI signalled from keyed 4-1000A filament:

> HP 141 Main Assy [NOTE: This main frame is too large to ship, so will
> be a pickup ONLY in Southern Ontario]
> http://home.cogeco.ca/~rodemi/Images%20%5bMISC%5d/HP%20141%20Main%20Assy.jpg

If no one lays claim to it and you part it out, can I have dibs on the
CRT? :-)

--
Gregg
It's probably useful, even if it can't be SPICE'd
http://geek.scorpiorising.ca

864. Re: PLL for VHF receiver (see attached files)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-13 06:48:34 UTC
From: farhan@phonestack.com
Message-ID: <fcc11bcf.0407122248.54c0e56b@posting.google.com>
Source record: 24946

"Damien Teney" <damien.teney@sobelairva.net> wrote in message
news:<D-OdnW3H5c53L2_dRVn-sw@scarlet.biz>...
> Thanks I've understood what you mean ;-)
>
> > bias the FET for nominal current at about half the Idss.
>
> As I'm not (yet) familiar with such circuits, so could you tell me how to do
> this :-$? Thanks.
>
> Damien

W7ZOI has a quick and dirty way of finding this out.
1) Connect a 1K resistor from the drain of the FET to 12v power
supply.
2) solder a 10K resistor from the source of the FET to ground.
3) ground the gate
4) apply power and measure the voltage on the source. this gives you
the pinchoff voltage (Vp).
5) short the source to the ground as well. Meausre the current flowing
through the drain (you can measure the voltage between the drain and
the 12v supply and divide it by 1000). This current value is IDss.

Now, choose a source resistor of the value Vp/(Idss * 4).

btw, you can simpley chuck all this and try 560 ohms. it should work
;). the gain, noise figure etc are not too crucial. the idea is to
buffer the input and output.

- farhan

- farhan

865. Re: PLL for VHF receiver (see attached files)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-13 09:18:40 UTC
From: Damien Teney <damien.teney@sobelairva.net>
Message-ID: <8I6dnXRZtZptNW7dRVn-hA@scarlet.biz>
Source record: 24847

Okay, but that stuff is only used to find out the Vp and Idss I guess ?
So the "amplifier" itself is only made up of the FET, with the gate
grounded, the drain as output, and the source as input via 1 resistor (560
ohms) ?

Damien

PS: that's probably the last question ;-)

> W7ZOI has a quick and dirty way of finding this out.
> 1) Connect a 1K resistor from the drain of the FET to 12v power
> supply.
> 2) solder a 10K resistor from the source of the FET to ground.
> 3) ground the gate
> 4) apply power and measure the voltage on the source. this gives you
> the pinchoff voltage (Vp).
> 5) short the source to the ground as well. Meausre the current flowing
> through the drain (you can measure the voltage between the drain and
> the 12v supply and divide it by 1000). This current value is IDss.
>
> Now, choose a source resistor of the value Vp/(Idss * 4).
>
> btw, you can simpley chuck all this and try 560 ohms. it should work
> ;). the gain, noise figure etc are not too crucial. the idea is to
> buffer the input and output.
>
> - farhan

866. Re: _Interesting_ antenna: the "RUZ"

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-13 09:43:00 UTC
From: Sverre Holm <la3za.0junk4me@qsl.net>
Message-ID: <cd0asu$a6i$1@maud.ifi.uio.no>
Source record: 24848

> > It's described on <http://www.qsl.net/ka5ruz/>. He calls it the "RUZ"
> > antenna.
>
> It looks fairly simple to build, simpler than other CFA or EH antenna
> descriptions I have seen, so maybe I will give it a try this summer?
>

Well, I built it. It gives an SWR equivalent to having an unterminated coaxial cable - in the order of 1:6 or 1:10, i.e. the maximum that I can measure. I first tried it with 10 m coax, about half wavelength on 20 m, then I thought I would try it with around a quarter-wave (~5 m) to transform the high impedance to a low one. That didn't help much.

However, my K2 antenna tuner can tune the antenna with 5 m cable and I can hear signals - even a rare one like OJ0 (not too far from LA-land!), but it is several S-points under my 75 horizontal loop in signal strength. I haven't tried to transmit yet.

--
Sverre Holm, LA3ZA
---
www.qsl.net/la3za

867. Question on Picokeyer & Paddle

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-13 11:08:35 UTC
From: null1969@yahoo.com
Message-ID: <479c2105.0407130308.61d74908@posting.google.com>
Source record: 24849

Hello,
I am getting back to ham radio and homebrewing (qrp) after many years. I wanted to start by building the simple low power Picokeyer given in http://www.arrl.org/qst/2003/12/0312038.pdf
I am currently in India and the MOSFET 2N7000 is not available here. The article says that I can use a 2N2222 with a current limiting resistor in the base or emitter. Can anyone help me with what resistor value to use? Also is there an older MOSFET that I can use instead of the 2N7000 since a MOSFET inherently uses very low current? Electronic parts are fairly inexpensive in India but only the older and more generic/popular ones are available.
Also has anyone enhanced the original software for the picokeyer in open source/freely available form?

I am also looking around to purchase a good paddle for qrp work (both qth and mobile) in the USA. I know from my previous stint in the hobby (qro) that Bencher paddles were just about the best, but they are also a little pricy - they have gone up 50% since the last time I checked. Is there a below $100 iambic paddle that is good for home and mobile use?

Please post your replies.

Thanks & Regards,
Jay
KC5TQS

868. FA:Collins knobs,RF-550A,B&W coils(40-10)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-13 12:37:26 UTC
From: Heytubeguy <heytubeguy@worldnet.att.net>
Message-ID: <aIQIc.245075$Gx4.172206@bgtnsc04-news.ops.worldnet.att.net>
Source record: 24850

See items at :

http://cgi6.ebay.com/ws/eBayISAPI.dll?ViewSellersOtherItems&userid=heytubeguy&completed=0&sort=3&since=-1&include=0&page=1&rows=25

tnx for looking, Heytubeguy

869. speaker impedance transformation

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-13 14:46:00 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <m8t7f0d9jra7cud86je67cvpb8lg2ru7qo@4ax.com>
Source record: 24851

Hi guys,

What's the quickest and simplest way of running an 8 ohm earpiece to a
32 ohm earpiece output socket without suffering too much power loss?

Thanks,

p.
--

"What is now proved was once only imagin'd." - William Blake, 1793.

870. 6m qrp all mode

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-13 16:00:14 UTC
From: Alex <westcoastmedia@tiscali.co.uk>
Message-ID: <40f408b1_1@mk-nntp-2.news.uk.tiscali.com>
Source record: 24852

I have had a good search around but couln't find what i was after, has anyone come across any information about 6m homebrew or could someone point me in the right direction web site wise

many thanks

871. Re: Is JB Weld Electrically conductive?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-13 16:03:43 UTC
From: Jerry <joxendi@bellsouth.net>
Message-ID: <b1gJc.1645$oG5.1619@bignews5.bellsouth.net>
Source record: 24766

"J999w" <j999w@aol.com> wrote in message
news:20040711220245.19433.00001122@mb-m17.aol.com...
> I can't find it here in Milwaukee, WI either.
>
> jw

Do you have Home Depot stores in WI? HD carries it locally, and I would think it would be there since Home Time on Public TV is a big supporter of that show. Isn't that show out of Wisconsin? I hope JB Weld hasn't been discontinued. Gosh, I'd miss that stuff badly.

Jerry

872. Re: Strange Redifon highlevel mixer (+20dBm)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-13 16:26:09 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <7t28f01j4fmf1t9g16cjkqsu6fjrgu5ppm@4ax.com>
Source record: 24853
Cross-posted to: sci.electronics.design,rec.radio.amateur.homebrew

On Fri, 9 Jul 2004 19:10:13 +0100, John Woodgate
<jmw@jmwa.demon.contraspam.yuk> wrote:

>I read in sci.electronics.design that J M Noeding <la8ak@online.no>
>wrote (in <mkjte0l53bnctfmodn9atjsi29q6fb9n4q@4ax.com>) about 'Strange
>Redifon highlevel mixer (+20dBm)', on Fri, 9 Jul 2004:
>>the strange is that output
>>termination is not critical at all. It is possible to terminate it
>>with an xtal filter and still obtain +20dBm, which is not at all
>>possible with a ringmodulator.
>
>Isn't it a double balanced bridge? Neither the signal input nor the LO
>input can 'see' the output, so any termination there has no effect on
>the input levels, and the source impedance at the output is pretty low.

Thanks for comments!
An the funny thing is that oscillator fed from 74HCU04 (4 of 6
inverters in paralell) with 0.1uF coupling capacitor, with 18.56MHz
xtal filter on the o/p and a lowpassfilter on the input the IP3
increases to +25dBm, and when the 180 ohm resistors are reduced to 120
ohm the IP3 increases to +30dBm. At last the supply voltage for
74HCU04 was increased to 7V and IP3 is measured to +35dBm.
It seems to be an advantage to use the LPF on the input, while it
would totally spoil the performance for a ringmodulator

Jan-Martin
LA8AK

J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

873. Re: 6m qrp all mode

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-13 17:51:35 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10f888rg7b1ov28@corp.supernews.com>
Source record: 24854

Alex wrote:
> I have had a good search around but couln't find what i was after, has
> anyone come across any information about 6m homebrew or could someone point
> me in the right direction web site wise
>
> many thanks
>
>
>
>
There's just not enough VHF homebrew out there! Particularly since
there's all sorts of wireless semiconductors that cover VHF at their
absolute lower limit (we won't get into why there's no UHF homebrew
given that's where all the wireless chips are).

"QRP Classics" has a little bit of 6 meter stuff, as does "Solid-State
Design for the Radio Amateur", but I haven't seen much any where else.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

874. Re: HP crystal Osc

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-13 18:10:54 UTC
From: dplatt@radagast.org
Message-ID: <10f89deah5rn96c@corp.supernews.com>
Source record: 24855

In article <20040712231151.12124.00001642@mb-m01.aol.com>,
Fred McKenzie <fmmck@aol.com> wrote:

>Rick-
>
>I've seen photos of these ovens on E-Bay, that had been stained by smoke coming
>out of the adjustment hole. I'd rather have some kind of protection.
>
>I believe the oven uses proportional control, so the transistors' maximum
>dissipation would occur when the heating element is half on. In a "runaway"
>mode, the transistors would be switched on with maximum current but nearly zero
>voltage. Also, one transistor failure mode is a short-circuit.

Seems like a self-resetting "Polyswitch" overcurrent limiter might be
a workable alternative. You'd probably want to pick one whose "will
pass" current is somewhat above the highest amount of current that the
oven would draw when it's quite cold. If the transistor shorts, and
the oven draws more current than that, the polyswitch would heat up
enough to go high-Z and chop off the current. Cutting power for a
minute or so would reset it.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

875. Re: Question on Picokeyer & Paddle

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-13 18:23:30 UTC
From: dplatt@radagast.org
Message-ID: <10f8a529oj7lu9c@corp.supernews.com>
Source record: 24856

> I am getting back to ham radio and homebrewing (qrp) after many
>years. I wanted to start by building the simple low power Picokeyer
>given in http://www.arrl.org/qst/2003/12/0312038.pdf
> I am currently in India and the MOSFET 2N7000 is not available
>here. The article says that I can use a 2N2222 with a current limiting
>resistor in the base or emitter. Can anyone help me with what resistor
>value to use?

I think you'd need to experiment a bit, to determine how much current into the base is required to turn a 2N2222 on hard enough to key your rig reliably, while still using the least amount of current. 3k0 in the base leg would be low enough to turn the 2N2222 on quite hard (it'd put 1 mA into the base), but this is probably overkill (the rig's probably not going to require more than a few mA to key up properly, I'd guess). I'd suggest starting at 10k0 and working upwards, until you find that the rig no longer keys up reliably, and then go down a bit.

You might want to try a pair of 2N2222s in a Darlington arrangment, with a high-value pulldown/turnoff resistor between the second transistor's base and ground. This would let you use a high-value resistor between the PIC and the first transistor's base (47k or higher). A Darlington pair would be slower than a single transistor, but unless you're in the thirteen-gabillion-word-per-minute class I don't think it'll matter in this application :-)

> Also is there an older MOSFET that I can use instead of
>the 2N7000 since a MOSFET inherently uses very low current? Electronic
>parts are fairly inexpensive in India but only the older and more
>generic/popular ones are available.

They probably are available, but you're going to have to look to see what the MOSFET's threshold voltage is. The Picokeyer uses a very low battery voltage, and you'll need to pick an enhancement NMOSFET which will turn on reasonably well with only 3 volts on the gate. A lot of the older MOSFETs require between 5 and 10 volts to turn on solidly.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

876. Epiphyte

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-13 18:34:06 UTC
From: Colin Parry <colin@thornhill2.force9.co.uk>
Message-ID: <40f42b1a$0$39747$ed2e19e4@ptn-nntp-reader04.plus.net>
Source record: 24857

Does anyone have a non working or half completed Epiphyte - 3 QRP transceiver, or even just the PCB. Also looking for a CA3020, 1SV149 varactor diode and Murata CFM455J1 SSB filter. Trying to collect the bits to build one of these things !!

Thanks for Looking !!!

Colin Parry
colin@thornhill2.force9.co.uk

877. Re: 6m qrp all mode

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-13 19:30:34 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <uLWIc.20000$iw3.16180@clgrps13>
Source record: 24858

Behold, Tim Wescott signalled from keyed 4-1000A filament:

> Alex wrote:
>> I have had a good search around but couln't find what i was after, has
>> anyone come across any information about 6m homebrew or could someone
>> point me in the right direction web site wise
>>
>> many thanks
>>
>>
>>
>>
> There's just not enough VHF homebrew out there!

IMHO, we can thank that no-code licence that restricts you to
commercially-made equipment for this.

<rant>
Our respective IC and FCC want all V/UHF HAM's to be glorified CB'ers
</rant>

--
Gregg
It's probably useful, even if it can't be SPICE'd
http://geek.scorpiorising.ca

878. Re: 6m qrp all mode

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-13 20:09:53 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10f8gc69il74ccc@corp.supernews.com>
Source record: 24859

Gregg wrote:

> Behold, Tim Wescott signalled from keyed 4-1000A filament:
>
>
>>Alex wrote:
>>
>>>I have had a good search around but couln't find what i was after, has
>>>anyone come across any information about 6m homebrew or could someone
>>>point me in the right direction web site wise
>>>
>>>many thanks
>>>
>>>
>>>
>>>
>>
>>There's just not enough VHF homebrew out there!
>
>
> IMHO, we can thank that no-code licence that restricts you to
> commercially-made equipment for this.
>
> <rant>
> Our respective IC and FCC want all V/UHF HAM's to be glorified CB'ers
> </rant>
>

Now, without spending five hours of quality time with my local FCC rule book, which could be more profitably spent working on the 6 meter R/C receiver that I've got cooking, I can't say for sure that you're wrong.

But if you were here I _would_ bet you money (which I never do) that the no code license does _not_ restrict you to commercially-made equipment -- you're supposed to know your own limits, but with them you can go like gangbusters. Can you point to a specific rule that shows that I'm wrong?

As near as I can tell the vast majority of folk with a no-code tech license are either disinclined or unable to build their own stuff, but not forbidden -- which is worth it's own rant.

--

Tim Wescott
Wescott Design Services

http://www.wescottdesign.com

879. Re: 6m qrp all mode

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-13 20:16:37 UTC
From: troglodite@aol.com
Message-ID: <20040713161637.29725.00001372@mb-m18.aol.com>
Source record: 24860

>
>IMHO, we can thank that no-code licence that restricts you to
>commercially-made equipment for this.

How does the no-code license restrict you to commercial gear? I see nothing in the rules that says this. After an absence from Amateur Radio of 38 years, I bagged a no-code Tech at a hamfest in 1998 and proceeded to build myself a 2m rig from a TenTec kit. Did I break the law? I don't think so. I have since re-obtained my General but passing the code again didn't make me technically smarter.

KB9TMY (Formerly K6HWY)

880. Re: 6m qrp all mode

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-13 20:19:40 UTC
From: R J Carpenter <rcarpen@erols.com>
Message-ID: <40f4516b$0$1165$61fed72c@news.rcn.com>
Source record: 24864

"Ian White, G3SEK" <G3SEK@ifwtech.co.uk> wrote in message
news:afn6awHYrE9AFABV@ifwtech.co.uk...
> Gregg wrote:
> >Behold, Tim Wescott signalled from keyed 4-1000A filament:
> >> There's just not enough VHF homebrew out there!
> >
> >IMHO, we can thank that no-code licence that restricts you to
> >commercially-made equipment for this.
> >
>
> There is actually a lot of HB associated with VHF, but the effort just
> doesn't happen to go into building QRP transceivers.
>
> Code proficiency is totally irrelevant to that. Some of this country's
> most advanced VHF homebrewers have held a no-code licence for over 30
> years. The same is true in Germany, France and several other European
> countries.

Ah, but according to his URL Greg is in Canada, where IIRC the no-code
licence does NOT allow homebrew transmitters.

881. Re: 6m qrp all mode

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-13 20:30:32 UTC
From: Phil <philj@xxspearnet.net>
Message-ID: <Xns9525A7F01CC93pj12345pjpj@216.196.97.132>
Source record: 24861

Hi Alex,

I found some interesting vhf HB stuff at JF1OZL's web site:

http://www.intio.or.jp/jf10zl/

He is a prolific builder and apparently very good at design.

Also, while not exactly what you asked about, Far Circuits
has a pc board for the Nor' Easter 6 meter AM transceiver.
Speaking of that, 6 meter AM was BOOMING into central Kentucky
from northern New York and else where this past weekend.
Copied many guys on AM (!!) with my handy-dandy Radio Shack
scanner and an attic mounted antenna. I couldn't believe it...

73,

phil

"Alex" <westcoastmedia@tiscali.co.uk> wrote in
news:40f408b1_1@mk-nntp-2.news.uk.tiscali.com:

> I have had a good search around but couln't find what i was
> after, has anyone come across any information about 6m homebrew
> or could someone point me in the right direction web site wise

882. Re: 6m qrp all mode

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-13 20:45:28 UTC
From: et472@FreeNet.Carleton.CA
Message-ID: <cd1hl8$69r$1@freenet9.carleton.ca>
Source record: 24862

Gregg (nospam@unknown.org) writes:
> Behold, Tim Wescott signalled from keyed 4-1000A filament:
>
>> Alex wrote:
>>> I have had a good search around but couln't find what i was after, has
>>> anyone come across any information about 6m homebrew or could someone
>>> point me in the right direction web site wise
>>>
>>> many thanks
>>>
>>>
>>>
>>>
>> There's just not enough VHF homebrew out there!
>
> IMHO, we can thank that no-code licence that restricts you to
> commercially-made equipment for this.
>
> <rant>
> Our respective IC and FCC want all V/UHF HAM's to be glorified CB'ers
> </rant>
>
Your "rant" would make more sense if you'd stated that you were here in
Canada. Most of the world won't have a clue what you are talking abnout.

And, the fact that in Canada one cannot use home made transmitters until
they pass the advanced test likely is not a significant factor here. Canada
is a small country, and over the years there's rarely been technical material
published in the few Canadian ham publications. So we look to the US and
the UK for technical material, and they don't have such limits on what
one can build.

Michael VE2BVW

883. Re: 6m qrp all mode

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-13 20:49:28 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <afn6awHYrE9AFABV@ifwtech.co.uk>
Source record: 24863

Gregg wrote:
>Behold, Tim Wescott signalled from keyed 4-1000A filament:
>> There's just not enough VHF homebrew out there!
>
>IMHO, we can thank that no-code licence that restricts you to
>commercially-made equipment for this.
>

There is actually a lot of HB associated with VHF, but the effort just doesn't happen to go into building QRP transceivers.

Code proficiency is totally irrelevant to that. Some of this country's most advanced VHF homebrewers have held a no-code licence for over 30 years. The same is true in Germany, France and several other European countries.

--
73 from Ian G3SEK
Editor, 'The VHF/UHF DX Book'
'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

884. Re: 6m qrp all mode

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-13 21:44:42 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10f8ltt76okgja4@corp.supernews.com>
Source record: 24865

nospam@nouce.bellatlantic.net wrote:

>>>There's just not enough VHF homebrew out there!
>
>
> To the writer of this: very true!
>
> Greg:
>
>>IMHO, we can thank that no-code licence that restricts you to
>>commercially-made equipment for this.
>
>
> You are flat out wrong. I am nocode and an engineer that loves to
> homebrew VHF gear. Wander up to 6m and catch me running QRP SSB some
> time. I have five 6m rigs, only one is commercial.
>
>
>><rant>
>>Our respective IC and FCC want all V/UHF HAM's to be glorified CB'ers
>></rant>
>
>
> Watch that paint brush, you may smear a few people with muck that
> don't deserve it.
>
> Allison
>

Where can we find the designs?

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

885. Re: 6m qrp all mode

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-13 22:04:31 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <7s6CGfMvxF9AFAWF@ifwtech.co.uk>
Source record: 24866

R J Carpenter wrote:
>
>"Ian White, G3SEK" <G3SEK@ifwtech.co.uk> wrote in message
>news:afn6awHYrE9AFABV@ifwtech.co.uk...
>> Gregg wrote:
>> >Behold, Tim Wescott signalled from keyed 4-1000A filament:
>> >> There's just not enough VHF homebrew out there!
>> >
>> >IMHO, we can thank that no-code licence that restricts you to
>> >commercially-made equipment for this.
>> >
>>
>> There is actually a lot of HB associated with VHF, but the effort just
>> doesn't happen to go into building QRP transceivers.
>>
>> Code proficiency is totally irrelevant to that. Some of this country's
>> most advanced VHF homebrewers have held a no-code licence for over 30
>> years. The same is true in Germany, France and several other European
>> countries.
>
>Ah, but according to his URL Greg is in Canada, where IIRC the no-code
>licence does NOT allow homebrew transmitters.
>
But code proficiency still doesn't come into it, at all.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

886. Wanted

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-13 22:25:17 UTC
From: Carl Domanico <vze2686b@verizon.net>
Message-ID: <hjZIc.39766$Xb4.12240@nwrdny02.gnilink.net>
Source record: 24867

Wanted

Looking for a Shure 444 Desk Microphone in nice condition

get back to me with price and condition...

Thanks

Carl

N2MFW

887. Re: speaker impedance transformation

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-13 23:02:02 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <f5q8f050un6n8sm6vbbu337qurfvq4ucvh@4ax.com>
Source record: 24870

On Tue, 13 Jul 2004 23:48:53 GMT, "Highland Ham"
<abgm0csz.kn6whyz@ntlworld.com> wrote:

>
>> What's the quickest and simplest way of running an 8 ohm earpiece to a
>> 32 ohm earpiece output socket without suffering too much power loss?
>======
>Any small transformer with a winding ratio 2 : 1 . Check with low
>voltage -50 Hz , 1 V in ......0.5 V out. Ratio is not all that critical .
>You can also use a tranformer's single winding with a centre tap .

Thanks, Frank. Turns out on further investigation the circuit
specifies * two* 32 ohm insets in series for 64 ohms altogether. I've
still only got an 8 ohm earpiece, though. So that's an 8:1
transformation which adds up to.... a tap a quarter way along one
winding? Or is it three-quarters. Or of course a full, 4:1
transformer, I suppose. I always get confused with transformations,
for some reason. :-/
--

"What is now proved was once only imagin'd." - William Blake, 1793.

888. FA: 50 watt dummy load termination (35 watt also)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-13 23:20:05 UTC
From: Lisa Trent <nobody@baboonville.snarf>
Message-ID: <2lj8vuFcrqssU1@uni-berlin.de>
Source record: 24871

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=53107&item=3826940352

889. RF probe

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-13 23:20:47 UTC
From: Michael Brook <mbrook@paradise.net.nz>
Message-ID: <z7_lc.8116$NA1.749556@news02.tsnz.net>
Source record: 24872

Hi
Anyone got a spare IN34A diode for an Rf probe, or can recommend a similar diode?
I wish to make an RF probe for measuring rf voltages in my transceiver.

Mike ZL2TVL

890. Re: 6m qrp all mode

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-13 23:41:30 UTC
From: ehsjr@bellatlantic.net
Message-ID: <Kq_Ic.24891$Al5.3192@nwrdny03.gnilink.net>
Source record: 24873

Alex wrote:

>I have had a good search around but couln't find what i was after, has
>anyone come across any information about 6m homebrew or could someone point
>me in the right direction web site wise
>
>many thanks
>
>
>
>
>
>
Not strictly home brew - but Ten-Tec offers a transverter kit
for 20 meteres to 6 meters. The kit is readily and easily
modifiable for 10 meters to 6 meters - I did it, as have others.
And there are 10 meter all mode radios at hamfests typically
about 125 - 150 bucks. I got one that was broken for $50 -
all it needed was an electrolytic capacitor.

891. Re: RF probe

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-13 23:44:15 UTC
From: ehsjr@bellatlantic.net
Message-ID: <jt_Ic.24897$Al5.16489@nwrdny03.gnilink.net>
Source record: 24874

Michael Brook wrote:

>Hi
>Anyone got a spare IN34A diode for an Rf probe, or can recommend a similar
>diode?
>I wish to make an RF probe for measuring rf voltages in my transceiver.
>
>Mike ZL2TVL
>
>
>
>
1N60. 2 for $1.00 All Electronics
http://www.allelectronics.com/cgi-bin/category.cgi

892. Re: speaker impedance transformation

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-13 23:48:53 UTC
From: Highland Ham <abgm0csz.kn6whyz@ntlworld.com>
Message-ID: <Fx_Ic.975$w_6.208@newsfe1-win.ntli.net>
Source record: 24868

> What's the quickest and simplest way of running an 8 ohm earpiece to a
> 32 ohm earpiece output socket without suffering too much power loss?
======
Any small transformer with a winding ratio 2 : 1 . Check with low
voltage -50 Hz , 1 V in ......0.5 V out. Ratio is not all that critical .
You can also use a tranformer's single winding with a centre tap .

Frank GM0CSZ / KN6WH

893. Re: 6m qrp all mode

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-13 23:48:55 UTC
From: Highland Ham <abgm0csz.kn6whyz@ntlworld.com>
Message-ID: <Hx_Ic.976$w_6.960@newsfe1-win.ntli.net>
Source record: 24869

> And, the fact that in Canada one cannot use home made transmitters until
> they pass the advanced test likely is not a significant factor here.
Canada
> is a small country, and over the years there's rarely been technical
material
> published in the few Canadian ham publications. So we look to the US and
> the UK for technical material, and they don't have such limits on what
> one can build.
==========
In the UK a Foundation Licensee (entry level) is not permitted to operate a
homebrew transmitter except when it is an approved kit.
This means he/she can not build and operate a transmitter from a published
design with bought components ,but is allowed to build a transmitter with
design and all components supplied by a reputable 'kit-house'.
As so often with this type of rules ,proper policing is hardly possible .

Frank GM0CSZ / KN6WH

894. Re: HP crystal Osc

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-14 00:12:28 UTC
From: John Walton <jdwalton@comcast.net>
Message-ID: <KuCdnQjRcdTl5Gnd4p2dnA@comcast.com>
Source record: 24875

In the very early days of newsgroups (musta been in the early late 1980's -- back when I had a Compuadd 286-25) there was a post put together from an HP Engineer and an HP Sales Guy -- to the extent that you could order a tuna sandwich, 8566A, but mayonaise OPT-010030 was an additional $0.30, if you wanted the sandwich sliced, that was OPT-010031 for which you had to pay $0.05. Of course, you could have the sandwich diagonally sliced, and on and on.

If you filled out your registration cards you could get updates on the menu, but once tuna fish sandwiches were discontinued spare parts could not be reordered.

"Rick Karlquist N6RK" <richard@karlquist.removethis.com> wrote in message news:rKXHc.53423$MB3.51741@attbi_s04...
> I was the project manager of the 5334B frequency counter.
> It had an option to have a 10811 timebase. The standard
> timebase, which I inherited from the 5334A design was
> embarassingly bad, barely able to do 10 PPM. Unfortunately,
> you cannot retrofit a 10811 to a 5334, because you need an
> extra PC board. This board is required to be able to put
> the 10811 on its side, because there isn't enough height for
> it.
>
> The gray market in used HP/Agilent test equipment is
> really hurting Agilent in some products. My old division no
> longer exists. I now work at Agilent Labs.
>
> Rick N6RK
>
> project manager for the
> "John Walton" <jdwalton@comcast.net> wrote in message
> news:79KdnT9Do-LQnW3dRVn-jg@comcast.com...
> > One of the great things which the telecom bust did was to make the
> equipment
> > you designed at HP available to us experimenters -- I use my HP3586C
> > Receiver's ovenized oscillator to drive my HP5334 frequency counter
>
>

895. Re: speaker impedance transformation

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-14 01:06:01 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10f91nbnejff970@corp.supernews.com>
Source record: 24876

Paul Burridge wrote:

> On Tue, 13 Jul 2004 23:48:53 GMT, "Highland Ham"
> <abgm0csz.kn6whyz@ntlworld.com> wrote:
>
>
>>>What's the quickest and simplest way of running an 8 ohm earpiece to a
>>>32 ohm earpiece output socket without suffering too much power loss?
>>
>>======
>>Any small transformer with a winding ratio 2 : 1 . Check with low
>>voltage -50 Hz , 1 V in ......0.5 V out. Ratio is not all that critical .
>>You can also use a tranformer's single winding with a centre tap .
>
>
> Thanks, Frank. Turns out on further investigation the circuit
> specifies * two* 32 ohm insets in series for 64 ohms altogether. I've
> still only got an 8 ohm earpiece, though. So that's an 8:1
> transformation which adds up to.... a tap a quarter way along one
> winding? Or is it three-quarters. Or of course a full, 4:1
> transformer, I suppose. I always get confused with transformations,
> for some reason. :-/

The winding ratio goes as the square root of the impedance ratio,
because you're transforming the current UP at the same time your
transforming the voltage DOWN. So you need a root-8:1, or about 3:1.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

896. Re: 6m qrp all mode

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-14 01:43:12 UTC
From: R J Carpenter <rcarpen@erols.com>
Message-ID: <40f49d40$0$1194$61fed72c@news.rcn.com>
Source record: 24877

"Ian White, G3SEK" <G3SEK@ifwtech.co.uk> wrote in message
news:7s6CGfMvxF9AFAWF@ifwtech.co.uk...
> R J Carpenter wrote:
> >
> >"Ian White, G3SEK" <G3SEK@ifwtech.co.uk> wrote in message
> >news:afn6awHYrE9AFABV@ifwtech.co.uk...
> >> Gregg wrote:
> >> >Behold, Tim Wescott signalled from keyed 4-1000A filament:
> >> >> There's just not enough VHF homebrew out there!
> >> >
> >> >IMHO, we can thank that no-code licence that restricts you to
> >> >commercially-made equipment for this.
> >> >
> >>
> >> There is actually a lot of HB associated with VHF, but the effort just
> >> doesn't happen to go into building QRP transceivers.
> >>
> >> Code proficiency is totally irrelevant to that. Some of this country's
> >> most advanced VHF homebrewers have held a no-code licence for over 30
> >> years. The same is true in Germany, France and several other European
> >> countries.
> >
> >Ah, but according to his URL Greg is in Canada, where IIRC the no-code
> >licence does NOT allow homebrew transmitters.
> >
> But code proficiency still doesn't come into it, at all.

Yes and no. Agreed, code proficiency is not related to the ABILITY to do
homebrew.

If, as I think is true , the authorities (Canadian) forbid you to use a
homebrew transmitter with a no-code licence, it is wrong to say that code
proficiency doesn't come into it. OK, you could build the transmitter, but
it would be illegal to use it. As an aside, I wonder what happens to a US
no-code ham with a homebrew transmitter who operates in Canada....

73 de bob w3otc

897. New old heath kits

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-14 02:45:51 UTC
From: w9gyc@earthlink.net
Message-ID: <2e4f5d42.0407131845.66d81325@posting.google.com>
Source record: 24878

I recently came across 3 unbuilt Heathkits. I dont want to open the boxes. Does any one know what an EK 1, EK 2b, or AK 8 is ? Maybe in an old catalog. Mike

898. Eagle Library for LM386 anyone ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-14 02:52:02 UTC
From: mike@corn2.freeserve.co.uk
Message-ID: <40f49f12.11633523@news.freeserve.net>
Source record: 24879

Gm Folks,
Has anyone got an Eagle library for the 8pin DIL LM386 Audio amp ?, or come to that, any Eagle libraries relating to commom amateur radio components not covered by Cadsoft.thanks, Mike W

899. Re: 6m qrp all mode

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-14 03:18:18 UTC
From: et472@FreeNet.Carleton.CA
Message-ID: <cd28lqdvh1@freenet9.carleton.ca>
Source record: 24880

"R J Carpenter" (rcarpen@erols.com) writes:
> "Ian White, G3SEK" <G3SEK@ifwtech.co.uk> wrote in message
> news:7s6CGfMvxF9AFAWF@ifwtech.co.uk...
>> R J Carpenter wrote:
>> >
>> >"Ian White, G3SEK" <G3SEK@ifwtech.co.uk> wrote in message
>> >news:afn6awHYrE9AFABV@ifwtech.co.uk...
>> >> Gregg wrote:
>> >> >Behold, Tim Wescott signalled from keyed 4-1000A filament:
>> >> >> There's just not enough VHF homebrew out there!
>> >> >
>> >> >IMHO, we can thank that no-code licence that restricts you to
>> >> >commercially-made equipment for this.
>> >> >
>> >>
>> >> There is actually a lot of HB associated with VHF, but the effort just
>> >> doesn't happen to go into building QRP transceivers.
>> >>
>> >> Code proficiency is totally irrelevant to that. Some of this country's
>> >> most advanced VHF homebrewers have held a no-code licence for over 30
>> >> years. The same is true in Germany, France and several other European
>> >> countries.
>> >
>> >Ah, but according to his URL Greg is in Canada, where IIRC the no-code
>> >licence does NOT allow homebrew transmitters.
>> >
>> But code proficiency still doesn't come into it, at all.
>
>
> Yes and no. Agreed, code proficiency is not related to the ABILITY to do
> homebrew.
>
> If, as I think is true , the authorities (Canadian) forbid you to use a
> homebrew transmitter with a no-code licence, it is wrong to say that code
> proficiency doesn't come into it. OK, you could build the transmitter, but
> it would be illegal to use it. As an aside, I wonder what happens to a US
> no-code ham with a homebrew transmitter who operates in Canada....
>
> 73 de bob w3otc
>

No, code has nothing to do with it.

It's the written test that determines whether or not someone can build their
own transmitter, or rather use it.

Up till 1990, there were two licenses, amateur and advanced, and each had a code test. (Oh, there was also the digital license, introduced in 1978, that required no code test, but was limited to only some VHF/UHF bands, and the focus was for digital work. It barely got noticed after it was introduced.) But then restructuring came along. The code test was spun out, and the test for the entry level license was apparently simplified. I've never really seen the new test, but the whole point of the restructuring was to make it easier for newcomers to the hobby. And for the basic license, it was decided that few were interested in building, so there was no sense making the test to deal with such details. The tradeoff was that you cannot use a home made transmitter with that license.

The advanced test allows for building transmitters, and higher power (a kilowatt instead of 250W), and I think it is needed to run a repeater.

The code test was not required for either license, but then you could not operate below 30MHz. Hence, you could have an advanced license, but not have passed the code test, and the result was you'd have full priviliges, but only above 30MHz.

There were two levels of code test. 5wpm got you full privileges below 4MHz, ie 160 and 80 metres, but nothing else at HF. (I think that may have been changed, for more HF useage, but I can't remember.)

The 12wpm code test gave in effect full priviliges, minus the bits the advanced test allowed.

So it was rather a mix and match system.

Michael VE2BVW

900. Re: 6m qrp all mode

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-14 04:16:05 UTC
From: marsgal42@hotmail.com
Message-ID: <d42b5a72.0407132016.38afbb5e@posting.google.com>
Source record: 24881

Tim Wescott <tim@wescottnospamdesign.com> wrote in message
news:<10f888rg7b1ov28@corp.supernews.com>...
> Alex wrote:
> > I have had a good search around but couln't find what i was after, has
> > anyone come across any information about 6m homebrew or could someone point
> > me in the right direction web site wise
> >
> > many thanks
> >
> >
> >
> >
> There's just not enough VHF homebrew out there! Particularly since
> there's all sorts of wireless semiconductors that cover VHF at their
> absolute lower limit (we won't get into why there's no UHF homebrew
> given that's where all the wireless chips are).
>
> "QRP Classics" has a little bit of 6 meter stuff, as does "Solid-State
> Design for the Radio Amateur", but I haven't seen much any where else.

Try Experimental Methods in RF Design. The ARRL position
it as the de facto 2nd edition of Solid State Design for the
Radio Amateur. I'm inclined to agree...there is tons of
stuff out there (my own library is growing steadily), but
people constantly complain of never being able to find
anything. I'm not sure where the disonnect is...

Reminds me of a conference I went to last year, where a
fellow walked by me with a copy of EMRFD under his arm.
I commented what a neat book it was, and when he turned
around I saw his name badge: "Rick KK7B".

Laura Halliday VE7LDH "Que les nuages soient notre
Grid: CN89mg pied a terre..."
ICBM: 49 16.05 N 122 56.92 W - Hospital/Shafte

901. Re: 6m qrp all mode

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-14 04:17:16 UTC
From: marsgal42@hotmail.com
Message-ID: <d42b5a72.0407132017.64a46e43@posting.google.com>
Source record: 24882

Tim Wescott <tim@wescottnospamdesign.com> wrote in message
news:<10f888rg7b1ov28@corp.supernews.com>...
> Alex wrote:
> > I have had a good search around but couln't find what i was after, has
> > anyone come across any information about 6m homebrew or could someone point
> > me in the right direction web site wise
> >
> > many thanks
> >
> >
> >
> >
> There's just not enough VHF homebrew out there! Particularly since
> there's all sorts of wireless semiconductors that cover VHF at their
> absolute lower limit (we won't get into why there's no UHF homebrew
> given that's where all the wireless chips are).
>
> "QRP Classics" has a little bit of 6 meter stuff, as does "Solid-State
> Design for the Radio Amateur", but I haven't seen much any where else.

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it as the de facto 2nd edition of Solid State Design for the
Radio Amateur. I'm inclined to agree...there is tons of
stuff out there (my own library is growing steadily), but
people constantly complain of never being able to find
anything. I'm not sure where the disonnect is...

Reminds me of a conference I went to last year, where a
fellow walked by me with a copy of EMRFD under his arm.
I commented what a neat book it was, and when he turned
around I saw his name badge: "Rick KK7B".

In 2004 the obvious solution is a nice and stable LO
(easy), an I/Q baseband up/down-converter (ditto), and
some DSP code (also easy).

Laura Halliday VE7LDH "Que les nuages soient notre
Grid: CN89mg pied a terre..."
ICBM: 49 16.05 N 122 56.92 W - Hospital/Shafte

902. Re: 6m qrp all mode

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-14 06:16:05 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <Fc4Jc.43516$Rf.5817@edtnps84>
Source record: 24883

Behold, Tim Wescott signalled from keyed 4-1000A filament:

> Gregg wrote:
>
>> Behold, Tim Wescott signalled from keyed 4-1000A filament:
>>
>>
>>>Alex wrote:
>>>
>>>>I have had a good search around but couln't find what i was after, has
>>>>anyone come across any information about 6m homebrew or could someone
>>>>point me in the right direction web site wise
>>>>
>>>>many thanks
>>>>
>>>>
>>>>
>>>>
>>>>
>>>There's just not enough VHF homebrew out there!
>>
>>
>> IMHO, we can thank that no-code licence that restricts you to
>> commercially-made equipment for this.
>>
>> <rant>
>> Our respective IC and FCC want all V/UHF HAM's to be glorified CB'ers
>> </rant>
>>
>>
> Now, without spending five hours of quality time with my local FCC rule
> book, which could be more profitably spent working on the 6 meter R/C
> receiver that I've got cooking, I can't say for sure that you're wrong.
>
> But if you were here I _would_ bet you money (which I never do) that the
> no code license does _not_ restrict you to commercially-made equipment
> -- you're supposed to know your own limits, but with them you can go
> like gangbusters. Can you point to a specific rule that shows that I'm
> wrong?
>
> As near as I can tell the vast majority of folk with a no-code tech
> license are either disinclined or unable to build their own stuff, but
> not forbidden -- which is worth it's own rant.
>

Yeah, that *is* worth it's own rant.

However, when I went to go for my no-code class licence here (Canada), I was told:

- without my 5WPM, I was restricted to:

1) 50MHz and above and
2) commercially made equipment

shrug

Sometimes, I wish I didn't let my VE4 lapse, which I did because of the HAM attitudes in Winnipeg in 1982 when I did let it lapse. But now I do see a use for it because I would love to help pioneer experimentation....something sorely lacking in many new HAM's because they can for easier/cheaper/less bother go to the store and buy an antenna, rig, coax and for an extra $50, have someone install the lot for you.

sigh

--
Gregg
It's probably useful, even if it can't be SPICE'd
http://geek.scorpiorising.ca

903. Re: 6m qrp all mode

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-14 06:19:45 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <5g4Jc.43517$Rf.31545@edtnps84>
Source record: 24884

Behold, Michael Black signalled from keyed 4-1000A filament:

> Gregg (nospam@unknown.org) writes:
>> Behold, Tim Wescott signalled from keyed 4-1000A filament:
>>
>>> Alex wrote:
>>>> I have had a good search around but couln't find what i was after,
>>>> has anyone come across any information about 6m homebrew or could
>>>> someone point me in the right direction web site wise
>>>>
>>>> many thanks
>>>>
>>>>
>>>>
>>>>
>>> There's just not enough VHF homebrew out there!
>>
>> IMHO, we can thank that no-code licence that restricts you to
>> commercially-made equipment for this.
>>
>> <rant>
>> Our respective IC and FCC want all V/UHF HAM's to be glorified CB'ers
>> </rant>
>>
> Your "rant" would make more sense if you'd stated that you were here in
> Canada. Most of the world won't have a clue what you are talking
> abnout.
>
> And, the fact that in Canada one cannot use home made transmitters until
> they pass the advanced test likely is not a significant factor here.
> Canada is a small country, and over the years there's rarely been
> technical material published in the few Canadian ham publications. So
> we look to the US and the UK for technical material, and they don't have
> such limits on what one can build.
>
> Michael VE2BVW

Hi Michael,

I wish our leaders would get off their fat, beaurocratic butts and
actually *lead* in the area of communications again.

I say *again*, because we were "t3h pwnz0r" the US and UK until the
mid-60's, in the electronics field.

As for publications, yes, the US and UK do lead. As much as I hate the ARRL's politics and attitude towards many policies, I have ARRL publications and they are my bible :-)

--
Gregg
It's probably useful, even if it can't be SPICE'd
http://geek.scorpiorising.ca

904. Re: 6m qrp all mode

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-14 06:26:57 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <Rm4Jc.43518$Rf.15803@edtnps84>
Source record: 24885

Behold, Ian White, G3SEK signalled from keyed 4-1000A filament:

> Gregg wrote:
>>Behold, Tim Wescott signalled from keyed 4-1000A filament:
>>> There's just not enough VHF homebrew out there!
>>
>>IMHO, we can thank that no-code licence that restricts you to
>>commercially-made equipment for this.
>>
>>
> There is actually a lot of HB associated with VHF, but the effort just
> doesn't happen to go into building QRP transceivers.

Too bad. HAM's were the communications pioneers, even the military used
them for R&D. Now with digital and satellites and stuff, who needs QRP?
Who really needs the HAM anymore?

Funny thing is, CB'ers regularily communicate globally with 4W AM, 12PEP
SSB and more R&D has been spent on "skip" antennas and other QRP aides for
CB, rather than HAM :-(

HELLLLLOOOOOOO! One does not need 2KW DC on a plate(s) to talk worldwide
on 21, 24 & 28 MHz.

I've been almost tempted to petition IC for a special "QRP" class
certificate "no-code" HF licence - the user *must* use homebrew equipment
and *must* keep DC input to the final at 5W or less. The catch is the regs
& theory the person must pass be at the advanced level.

Good Idea? No?

> Code proficiency is totally irrelevant to that. Some of this country's
> most advanced VHF homebrewers have held a no-code licence for over 30
> years. The same is true in Germany, France and several other European
> countries.

I have listened to 2 meter communications in BC and Manitoba for 25 years
and other than repeater ID's, I have yet to hear one QSO or even a call in
CW :-/

--
Gregg
It's probably useful, even if it can't be SPICE'd
http://geek.scorpiorising.ca

905. Re: 6m qrp all mode

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-14 06:29:21 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <5p4Jc.43519$Rf.19972@edtnps84>
Source record: 24886

Behold, nospam signalled from keyed 4-1000A filament:

>>> There's just not enough VHF homebrew out there!
>
> To the writer of this: very true!
>
> Greg:
>>IMHO, we can thank that no-code licence that restricts you to
>>commercially-made equipment for this.
>
> You are flat out wrong. I am nocode and an engineer that loves to
> homebrew VHF gear. Wander up to 6m and catch me running QRP SSB some
> time. I have five 6m rigs, only one is commercial.
>
>><rant>
>>Our respective IC and FCC want all V/UHF HAM's to be glorified CB'ers
>></rant>
>
> Watch that paint brush, you may smear a few people with muck that don't
> deserve it.
>
> Allison

Point taken. I was angry when I wrote. Apologies to the ones that don't
deserve the muck ;-)

--
Gregg
It's probably useful, even if it can't be SPICE'd
http://geek.scorpiorising.ca

906. Re: 6m qrp all mode

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-14 06:31:09 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <Nq4Jc.43526$Rf.8321@edtnps84>
Source record: 24887

Behold, ehsjr signalled from keyed 4-1000A filament:

> Alex wrote:
>
>>I have had a good search around but couln't find what i was after, has
>>anyone come across any information about 6m homebrew or could someone
>>point me in the right direction web site wise
>>
>>many thanks
>>
>>
>>
>>
>>
>>
> Not strictly home brew - but Ten-Tec offers a transverter kit for 20
> meteres to 6 meters. The kit is readily and easily modifiable for 10
> meters to 6 meters - I did it, as have others. And there are 10 meter
> all mode radios at hamfests typically about 125 - 150 bucks. I got one
> that was broken for $50 - all it needed was an electrolytic capacitor.

Kits are a GREAT way, IMO, a new person can learn. Hey, when I was 6, I
learned from Heathkit! :-)

--
Gregg
It's probably useful, even if it can't be SPICE'd
http://geek.scorpiorising.ca

907. Re: FA: 50 watt dummy load termination (35 watt also)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-14 06:32:22 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <Wr4Jc.43542$Rf.10782@edtnps84>
Source record: 24888

Behold, Lisa Trent signalled from keyed 4-1000A filament:

>
http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=53107&item=3826940352

Hi Lisa,

I was just asking about a dummy-load a while ago. Perfect!

(P.S. - I adore N-connectors)

--
Gregg
It's probably useful, even if it can't be SPICE'd
http://geek.scorpiorising.ca

908. Re: Eagle Library for LM386 anyone ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-14 06:34:42 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <6u4Jc.43575$Rf.24354@edtnps84>
Source record: 24889

Behold, Mike W signalled from keyed 4-1000A filament:

> Gm Folks,
> Has anyone got an Eagle library for the 8pin DIL LM386 Audio amp ?, or
> come to that, any Eagle libraries relating to commom amateur radio
> components not covered by Cadsoft.thanks, Mike W

Does Eagle use Pspice or Berkley 3f4?

If it's the latter, I can post it!

--
Gregg
It's probably useful, even if it can't be SPICE'd
http://geek.scorpiorising.ca

909. Re: 6m qrp all mode

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-14 07:09:22 UTC
From: Dieter Mayr <dietersbg68@hotmail.com>
Message-ID: <40f4dc23$0$20910$91cee783@newsreader01.highway.telekom.at>
Source record: 24890

"Alex" <westcoastmedia@tiscali.co.uk> schrieb im Newsbeitrag
news:40f408b1_1@mk-nntp-2.news.uk.tiscali.com...
> I have had a good search around but couln't find what i was after, has
> anyone come across any information about 6m homebrew or could someone
point
> me in the right direction web site wise
>
> many thanks
>
>
>
>

Hello Alex

Have a look at http://www.qsl.net/7n3wvm/
There u will find a 6m Trancceiver.
Maybe thats what ur lookig for ?

72
Dieter OE2CDM

910. Re: New old heath kits

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-14 07:16:09 UTC
From: Dieter Mayr <dietersbg68@hotmail.com>
Message-ID: <40f4ddb9$0$17070$91cee783@newsreader01.highway.telekom.at>
Source record: 24891

"Mike Freitag" <w9gyc@earthlink.net> schrieb im Newsbeitrag
news:2e4f5d42.0407131845.66d81325@posting.google.com...
> I recently came across 3 unbuilt Heathkits. I dont want to open the
> boxes. Does any one know what an EK 1, EK 2b, or AK 8 is ? Maybe in an
> old catalog. Mike

Here u may find what u look for http://www.heathkits.com/modelpage.html

73 , Dieter OE2CDM

911. Re: Eagle Library for LM386 anyone ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-14 08:04:29 UTC
From: mike@corn2.freeserve.co.uk
Message-ID: <40f4e8af.30479452@news.freeserve.net>
Source record: 24892

On Wed, 14 Jul 2004 06:34:42 GMT, Gregg <nospam@unknown.org> wrote:

>Behold, Mike W signalled from keyed 4-1000A filament:
>
>> Gm Folks,
>> Has anyone got an Eagle library for the 8pin DIL LM386 Audio amp ?, or
>> come to that, any Eagle libraries relating to commom amateur radio
>> components not covered by Cadsoft.thanks, Mike W
>
>Does Eagle use Pspice or Berkley 3f4?
>
Sadly AFIK neither. but thanks for the offer Greg.

912. Re: 6m qrp all mode

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-14 09:33:42 UTC
From: "Gary S." <Idontwantspam@net>
Message-ID: <dqu9f0l1urib1b99j469l9jg057i5sudvt@4ax.com>
Source record: 24893

On Tue, 13 Jul 2004 21:43:12 -0400, "R J Carpenter"
<rcarpen@erols.com> wrote:

>it would be illegal to use it. As an aside, I wonder what happens to a US
>no-code ham with a homebrew transmitter who operates in Canada....
>
There are reciprocal privileges, but my interpretation is when
operating in Canada, one is required to follow (and be aware of) all
of the Industry Canada (equivalent of FCC) regulations.

If you see <http://www.rac.ca/regulatory/rcip.htm>

you will find the following:
"Americans operating in Canada, must abide by Industry Canada RIC-2

- A US amateur who is qualified to send and receive in Morse code at
a speed of at least 5 wpm may operate an amateur station in Canada in
accordance with the provisions applicable to the holder of an Amateur
Operator's Certificate with Basic, Morse Code (5 wpm) and Advanced
Qualifications.

- A US amateur who is not qualified to send and receive in Morse code
may operate an amateur station in Canada in accordance with provisions
applicable to the holder of the Amateur Operator's Certificate with
Basic and Advanced Qualifications."

Again, RIC-2 would be equivalent to Part 97.

Happy trails,
Gary (net.yogi.bear)
---
at the 51st percentile of ursine intelligence

Gary D. Schwartz, Needham, MA, USA
Please reply to: garyDOTschwartzATpoboxDOTcom

913. Re: 6m qrp all mode

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-14 09:38:25 UTC
From: R J Carpenter <rcarpen@erols.com>
Message-ID: <40f50c9d$0$1194$61fed72c@news.rcn.com>
Source record: 24895

Sorry for the top-post, but good that a Canadian who understands their system straightens this out.

Thanks.

bob

"Michael Black" <et472@FreeNet.Carleton.CA> wrote in message news:cd28lqdvh1@freenet9.carleton.ca...
> "R J Carpenter" (rcarpen@erols.com) writes:
> >
> > Yes and no. Agreed, code proficiency is not related to the ABILITY to do
> > homebrew.
> >
> > If, as I think is true , the authorities (Canadian) forbid you to use a
> > homebrew transmitter with a no-code licence, it is wrong to say that code
> > proficiency doesn't come into it. OK, you could build the transmitter, but
> > it would be illegal to use it. As an aside, I wonder what happens to a US
> > no-code ham with a homebrew transmitter who operates in Canada....
> >
> > 73 de bob w3otc
> >
>
> No, code has nothing to do with it.
>
> It's the written test that determines whether or not someone can build their
> own transmitter, or rather use it.
>
> Up till 1990, there were two licenses, amateur and advanced, and each had
> a code test. (Oh, there was also the digital license, introduced in 1978,
> that required no code test, but was limited to only some VHF/UHF bands,
> and the focus was for digital work. It barely got noticed after it was
> introduced.) But then restructuring came along. The code test was spun
> out, and the test for the entry level license was apparently simplified.
> I've never really seen the new test, but the whole point of the
> restructuring was to make it easier for newcomers to the hobby. And for
> the basic license, it was decided that few were interested in building,
> so there was no sense making the test to deal with such details. The tradeoff
> was that you cannot use a home made transmitter with that license.

>
> The advanced test allows for building transmitters, and higher power (a
> kilowatt instead of 250W), and I think it is needed to run a repeater.
>
> The code test was not required for either license, but then you could not
> operate below 30MHz. Hence, you could have an advanced license, but not
> have passed the code test, and the result was you'd have full priviliges,
> but only above 30MHz.
>
> There were two levels of code test. 5wpm got you full privileges below
> 4MHz, ie 160 and 80 metres, but nothing else at HF. (I think that may
have
> been changed, for more HF useage, but I can't remember.)
>
> The 12wpm code test gave in effect full priviliges, minus the bits the
> advanced test allowed.
>
> So it was rather a mix and match system.
>
> Michael VE2BVW
>
>
>
>

914. Re: 6m qrp all mode

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-14 10:43:54 UTC
From: "Joe Bramblett, KD5NRH" <kd5nrh@yahoo.spam.com>
Message-ID: <Xns95263A4F55B53kd5nrhyahoocom@38.144.126.105>
Source record: 24896

Gregg <nospam@unknown.org> wrote in news:Rm4Jc.43518$Rf.15803@edtnps84:

> Funny thing is, CB'ers regularily communicate globally with 4W AM,
> 12PEP SSB

Since when? Speaking from experience in the field, if it comes from a CB shop, it's not running 4W or less unless you bought it while wearing your FCC Enforcement Division T-shirt. Most of the WalMart radio crowd isn't DXing.

915. Re: speaker impedance transformation

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-14 11:00:09 UTC
From: Highland Ham <abgm0csz.kn6whyz@ntlworld.com>
Message-ID: <Zm8Jc.56$847.8@newsfe1-win.ntli.net>
Source record: 24894

Turns out on further investigation the circuit
> specifies * two* 32 ohm insets in series for 64 ohms altogether. I've
> still only got an 8 ohm earpiece, though. So that's an 8:1
> transformation which adds up to.... a tap a quarter way along one
> winding? Or is it three-quarters. Or of course a full, 4:1
> transformer, I suppose. I always get confused with transformations,
> for some reason. :-/
==========
For a (lossless) transformer V*V/Z = constant , hence the input to output impedance ratio is proportional to the square of the voltage ratio.
For your 64 to 8 Ohms application ,hence 8 : 1 impedance ratio you need a small transformer with a sqrt (8:1) = 2.8 :1 voltage ratio (equals winding ratio). You possibly have a small transformer in your junkbox from a wallwart , those low voltage DC power supplies you plug into a wall socket. They often have a switch enabling different output voltages 3-5-6-9-12 V
The transformer inside has a single secondary winding ,which could be used as an auto transformer for your application.
Perhaps you can also wind your own transformer on a toroid from an old switch mode PSU or the like, say with 50 and 140 turns or a single winding of 140 turns with a tap at 50 turns. The actual winding ratio is probably not critical.
The impedance of your earpiece is only around 8 Ohms for a limited audio freq range ; it is usually specified for 1000 Hz

Good luck with you endeavours

Frank GM0CSZ / KN6WH

916. Re: 6m qrp all mode

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-14 11:00:21 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <9n8Jc.43709$Rf.18469@edtnps84>
Source record: 24747

Behold, Joe Bramblett, KD5NRH signalled from keyed 4-1000A filament:

> Gregg <nospam@unknown.org> wrote in news:Rm4Jc.43518$Rf.15803@edtnps84:
>
>> Funny thing is, CB'ers regularily communicate globally with 4W AM,
>> 12PEP SSB
>
> Since when? Speaking from experience in the field, if it comes from a CB
> shop, it's not running 4W or less unless you bought it.............

I think there is a 1/2 dozen "true" CB shops left in Canada. The one here
in Vancouver looks very low on those seeking their rig "Peaked", because
they view them as n00bs and not worth their time.

Those running "footwarmers" usually only do so in the mobile, because of
our mountains.
> ....while wearing your FCC Enforcement Division T-shirt.

Why does everyone automatically assume I'm an American?

Lookie my signature - ....scorpiorising.CA

sigh

--
Gregg
It's probably useful, even if it can't be SPICE'd
http://geek.scorpiorising.ca

917. Re: New old heath kits

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-14 11:03:20 UTC
From: fmmck@aol.com
Message-ID: <20040714070320.26583.00001712@mb-m03.aol.com>
Source record: 24756

<< Does any one know what an EK 1, EK 2b, or AK 8 is ? >>

Mike-

I'll look for an old catalog at work. The "EK" series was their Educational Kits, possibly something like a digital electronics trainer. I would guess the AK 8 was a power supply for use with the EKs.

I suggest you call Heath, which continued in the educational field after they stopped producing kits.

73, Fred, K4DII

918. Re: speaker impedance transformation

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-14 11:30:54 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <i66af0932ud1hk5c394juo14vsvu4r9mn6@4ax.com>
Source record: 24748

On Wed, 14 Jul 2004 11:00:09 GMT, "Highland Ham"
<abgm0csz.kn6whyz@ntlworld.com> wrote:

> Turns out on further investigation the circuit
>> specifies * two* 32 ohm insets in series for 64 ohms altogether. I've
>> still only got an 8 ohm earpiece, though. So that's an 8:1
>> transformation which adds up to.... a tap a quarter way along one
>> winding? Or is it three-quarters. Or of course a full, 4:1
>> transformer, I suppose. I always get confused with transformations,
>> for some reason. :-/
>============================
>For a (lossless) transformer V*V/Z = constant , hence the input to output
>impedance ratio is proportional to the square of the voltage ratio.
>For your 64 to 8 Ohms application ,hence 8 : 1 impedance ratio you need a
>small transformer with a sqrt (8:1) = 2.8 :1 voltage ratio (equals winding
>ratio). You possibly have a small transformer in your junkbox from a
>wallwart , those low voltage DC power supplies you plug into a wall socket.
>They often have a switch enabling different output voltages 3-5-6-9-12 V
>The transformer inside has a single secondary winding ,which could be used
>as an auto transformer for your application.
>Perhaps you can also wind your own transformer on a toroid from an old
>switch mode PSU or the like, say with 50 and 140 turns or a single winding
>of 140 turns with a tap at 50 turns. The actual winding ratio is probably
>not critical.
>The impedance of your earpiece is only around 8 Ohms for a limited audio
>freq range ; it is usually specified for 1000 Hz
>
>Good luck with you endeavours

Okay, many thanks, Frank (& Tim). That should be plenty to get me up
and running. I've got some toroids that should do the trick. I assume
since you say it's okay to use ones from PSUs that loss isn't a
problem here. I've got some low-loss powdered iron RF types, but
they're probably too small for the number of turns required. Still, a
bit of experimenting is what it's all about!
Thanks again,

p.
--

"What is now proved was once only imagin'd." - William Blake, 1793.

919. Re: RF probe

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-14 11:32:21 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <ac6af01en2ca794cgaurka7un9pm10qknv@4ax.com>
Source record: 24749

On Tue, 13 Jul 2004 23:44:15 GMT, ehsjr@bellatlantic.net wrote:

>Michael Brook wrote:
>
>>Hi
>>Anyone got a spare IN34A diode for an Rf probe, or can recommend a similar
>>diode?
>>I wish to make an RF probe for measuring rf voltages in my transceiver.
>>
>>Mike ZL2TVL
>>
>>
>>
>>
>1N60. 2 for $1.00 All Electronics
>http://www.allelectronics.com/cgi-bin/category.cgi

Just about any Schottky ought to do it, surely? Nice low barrier
height and all that. BAT41 or similar...

--

"What is now proved was once only imagin'd." - William Blake, 1793.

920. Re: RF probe

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-14 12:08:17 UTC
From: Cheetah <elgordo@mohna.com>
Message-ID: <Rm9Jc.9082$kK.3499@newsread3.news.atl.earthlink.net>
Source record: 24750

I can't get that link to work...just make sure what you get is Germanium and not silicon.

<ehsjr@bellatlantic.net> wrote in message news:jt_Ic.24897$Al5.16489@nwrdny03.gnilink.net...
> Michael Brook wrote:
>
> >Hi
> >Anyone got a spare IN34A diode for an Rf probe, or can recommend a similar
> >diode?
> >I wish to make an RF probe for measuring rf voltages in my transceiver.
> >
> >Mike ZL2TVL
> >
> >
> >
> >
> 1N60. 2 for $1.00 All Electronics
> http://www.allelectronics.com/cgi-bin/category.cgi

921. Re: RF probe

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-14 12:09:28 UTC
From: Cheetah <elgordo@mohna.com>
Message-ID: <Yn9Jc.9083$kK.3991@newsread3.news.atl.earthlink.net>
Source record: 24751

Try here:

http://comtrolauto.netfirms.com/1N60.html

That have the Germanium 1N60 for 16 cents each, or 50 for $7.50 USD

922. QSL.net problems?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-14 13:26:18 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <utcaf05q49jstpibbendiketr3u5itpel8@4ax.com>
Source record: 24752

Tried for 4th time to download a 676k file from
http://www.qsl.net/dl5swb/minirk_e.htm
but had to resign, the connection timed out, so ADSL didn't help much
when speed varied between 200-861bits/s

Any clues?
73,
Jan-Martin

J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

923. Re: PLL for VHF receiver (see attached files)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-14 14:15:59 UTC
From: Richard Hosking <richardh@iinet.net.au>
Message-ID: <40F5401F.7050603@iinet.net.au>
Source record: 24753

There are a few possible sources of problems
(1) Power supply for the PLL and VCO - noise on these will appear in the
output. use separate supplies with ?zeners rather than IC regulators
(2) Is the amplitude from the buffer enough to drive the prescaler properly?
(3) Is the loop stable - how did you arrive at your calculations for the
loop values?
(4) The VCO tank seems to be heavily loaded - it has an output directly
to the Rx and a large (68p) capacitor to the varicap which is low Q.
This would make it noisier. Why not take the output to the Rx from the
buffer? (is that how it was originally?)
Also could you use a smaller cap to the varicap? (say 5p or less)

Richard

Damien Teney wrote:
> Hello everybody,
> I have build a VHF receiver for the airband, published in the magazine
> Elektor a few years ago, and I've managed to build a PLL to improve it. The
> PLL is build on another PCB, that is connected to the main circuit, and that
> replaces the original potmeter, in order to choose the frequency. The PLL is
> able to lock on the right frequency, but the receiver is a lot more noisy,
> and it seems really less sensitive with the PLL. See these sketches,
> I think it is better than a long explaination.
>
> http://www.mcarsweb.com/_divers/1sketch.jpg
> http://www.mcarsweb.com/_divers/2sketch.jpg
> http://www.mcarsweb.com/_divers/3sketch.jpg
>
> I have also included the schematics of the VCO (with the buffering
> transistor, T4), and the basic schematic of the PLL (taken from a Motorola
> application note). I don't know where the problem could come from. I would
> say from the bad buffering of the VCO output, but I don't see how it could
> be improved.
>
> http://www.mcarsweb.com/_divers/4VCO.jpg
> http://www.mcarsweb.com/_divers/5PLL.jpg
>
> I'm really getting mad with this problem ! So thanks to all of you who will
> answer ;-)
>
>
>
>
>

924. Re: HP crystal Osc

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-14 14:29:26 UTC
From: Rick Karlquist N6RK <richard@karlquist.removethis.com>
Message-ID: <arbJc.76025$MB3.53463@attbi_s04>
Source record: 24754

The runaway oven problem isn't caused by too much transistor
current, rather it is caused by the transistor staying on too long.
Thus a current based system wouldn't work. Also, in the case
of the 5334A, the power supply is barely able to supply minimum
current for warmup, so the oscillator couldn't draw more than
normal warmup current even if it tried. In the 5334B, I improved
the power supply so that it warms up the oscillator in half the
time or less compared to the 34A.

Rick N6RK

"Dave Platt" <dplatt@radagast.org> wrote in message
news:10f89deah5rn96c@corp.supernews.com...
> In article <20040712231151.12124.00001642@mb-m01.aol.com>,
> Fred McKenzie <fmmck@aol.com> wrote:
>
> >Rick-
> >
> >I've seen photos of these ovens on E-Bay, that had been stained by smoke
coming
> >out of the adjustment hole. I'd rather have some kind of protection.
> >
> >I believe the oven uses proportional control, so the transistors' maximum
> >dissipation would occur when the heating element is half on. In a
"runaway"
> >mode, the transistors would be switched on with maximum current but
nearly zero
> >voltage. Also, one transistor failure mode is a short-circuit.
>
> Seems like a self-resetting "Polyswitch" overcurrent limiter might be
> a workable alternative. You'd probably want to pick one whose "will
> pass" current is somewhat above the highest amount of current that the
> oven would draw when it's quite cold. If the transistor shorts, and
> the oven draws more current than that, the polyswitch would heat up
> enough to go high-Z and chop off the current. Cutting power for a
> minute or so would reset it.
>
> --
> Dave Platt <dplatt@radagast.org> AE6EO
> Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
> I do _not_ wish to receive unsolicited commercial email, and I will
> boycott any company which has the gall to send me such ads!

925. Re: QSL.net problems?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-14 14:45:11 UTC
From: Leon Heller <leon_heller@hotmail.com>
Message-ID: <40f546f8$0$6447$cc9e4d1f@news-text.dial.pipex.com>
Source record: 24755

"J M Noeding" <la8ak@online.no> wrote in message
news:utcaf05q49jstpibbendiketr3u5itpel8@4ax.com...
> Tried for 4th time to download a 676k file from
> http://www.qsl.net/dl5swb/minirk_e.htm
> but had to resign, the connection timed out, so ADSL didn't help much
> when speed varied between 200-861bits/s

I just downloaded the smaller .zip file OK, but it was very slow. I can
email it if you like.

73, Leon

926. Re: QSL.net problems?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-14 14:53:55 UTC
From: K7MEM <k7mem@myrealbox.com>
Message-ID: <40F54903.9070902@myrealbox.com>
Source record: 24759

J M Noeding wrote:
> Tried for 4th time to download a 676k file from
> http://www.qsl.net/dl5swb/minirk_e.htm
> but had to resign, the connection timed out, so ADSL didn't help much
> when speed varied between 200-861bits/s
>
> Any clues?
> 73,
> Jan-Martin
> ---
> J. M. Noeding, LA8AK, N-4623 Kristiansand
> http://home.online.no/~la8ak/c.htm

Well, I did a little better than you at 1.5 Kbits/sec but it still took almost 7 minutes to download the whole thing.

Don't expect any answers from qsl.net. I tried to sign up for web space several times and sent them email requesting help, but never received any response. I finally went somewhere else for my web space.

If you like, since I was able to download the files, I could email them to you. All the files together would be a little over 1 MByte.

--
Martin E. Meserve
k7mem@myrealbox.com
http://www.k7mem.150m.com

927. Re: RF probe

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-14 14:53:59 UTC
From: ehsjr@bellatlantic.net
Message-ID: <bObJc.43133$Xb4.9904@nwrdny02.gnilink.net>
Source record: 24757

Cheetah wrote:

>I can't get that link to work...just make sure what you get is Germanium and
>not silicon.
>
>
>
Arrrgh! Neither can I. Sorry for posting a bad link.
You can get to it this way:
http://www.allelectronics.com/
Then put 1N60 in the search box at the upper right.

928. Re: RF probe

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-14 14:57:37 UTC
From: ehsjr@bellatlantic.net
Message-ID: <BRbJc.43158$Xb4.6450@nwrdny02.gnilink.net>
Source record: 24758

Cheetah wrote:

>Try here:
>
>http://comtrolauto.netfirms.com/1N60.html
>
>That have the Germanium 1N60 for 16 cents each, or 50 for $7.50 USD
>
>
>
>
>
Nice page - thanks for posting it! I nosed around there -
they have 1N34A's, too, same price:
http://comtrolauto.netfirms.com/In34a.html

929. Re: QSL.net problems?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-14 15:02:56 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <eOpr+$DgsU9AFAgu@ifwtech.co.uk>
Source record: 24761

J M Noeding wrote:
>Tried for 4th time to download a 676k file from
>http://www.qsl.net/dl5swb/minirk_e.htm
>but had to resign, the connection timed out, so ADSL didn't help much
>when speed varied between 200-861bits/s

Maybe my article recommending the program has caused a log-jam!

Qsl.net can often be more like "qsb.net", so try again later.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

930. Re: 6m qrp all mode

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-14 15:06:48 UTC
From: et472@FreeNet.Carleton.CA
Message-ID: <cd3i68$q0n$1@freenet9.carleton.ca>
Source record: 24760

Gregg (nospam@unknown.org) writes:
>
> However, when I went to go for my no-code class licence here (Canada), I
> was told:
>
> - without my 5WPM, I was restricted to:
>
> 1) 50MHz and above and
> 2) commercially made equipment
>
> *shrug*
>
> Sometimes, I wish I didn't let my VE4 lapse, which I did because of the
> HAM attitudes in Winnipeg in 1982 when I did let it lapse.

You don't read the rules very carefully, do you?

Your certificate of proficiency is good for life. Unless you voluntarily return it or the DOC or whatever it calls itself these days cancels it (and you'd have to do something quite serious for that).

It's only the station license that you had to renew.

All you need to do is apply for a station license. And since everyone who had a license was grandfathered (well maybe not the few holders of the "Digital license"), you've got full priviliges even if you'd never gone for the Advanced license years ago.

Of course, I'm not sure what happens these days, since one no longer pays for a station license, and it's all one piece of paper. But I can't see them forcing you to retest simly because you never renewed your callsigne.

As for what's what now, you'd want to read RIC-24 (unless they renumber it as things change). My copy dates from July 1990, right after the restructuring. It clearly shows that the Advanced test gives you the ability to build transmitters, but code has nothing to do with it.

Michael VE2BVW

931. Steel Chassis

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-14 15:15:01 UTC
From: Ken Fattmann <na0y@centurytel.net>
Message-ID: <8OCdnTlvb4l-0Gjd4p2dnA@centurytel.net>
Source record: 24762

Does anyone have source for steel 17 inch rack chassis? I want to build some home brew units such as high level class B 810 modulator and I need steel chassis due to the heavy iron.
Please advise.

ken NAY na0y@centurytel.net

932. Re: 6m qrp all mode

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-14 16:02:01 UTC
From: Roger Gt <not@here.net>
Message-ID: <ZNcJc.20273$W97.16629@newssvr27.news.prodigy.com>
Source record: 24763

"Gregg" <nospam@unknown.org> wrote in message
news:9n8Jc.43709$Rf.18469@edtnps84...
:
: Why does everyone automatically assume I'm an American?

Because of your intelligent comments!

933. Re: QSL.net problems?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-14 17:38:04 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <5mraf0pp0b5u9jjl99ugg7kaa3oa7ivtgi@4ax.com>
Source record: 24764

On Wed, 14 Jul 2004 07:53:55 -0700, K7MEM <k7mem@myrealbox.com> wrote:

>J M Noeding wrote:
>> Tried for 4th time to download a 676k file from
>> http://www.qsl.net/dl5swb/minirk_e.htm
>> but had to resign, the connection timed out, so ADSL didn't help much
>> when speed varied between 200-861bits/s
>>
>> Any clues?
>> 73,
>> Jan-Martin
>> ---
>> J. M. Noeding, LA8AK, N-4623 Kristiansand
>> http://home.online.no/~la8ak/c.htm
>
>Well, I did a little better than you at 1.5 Kbits/sec but it still took
>almost 7 minutes to download the whole thing.
>
>Don't expect any answers from qsl.net. I tried to sign up for web space
>several times and sent them email requesting help, but never received
>any response. I finally went somewhere else for my web space.
>
>If you like, since I was able to download the files, I could email them
>to you. All the files together would be a little over 1 MByte.

thanks,
but I eventually got the first file, but the 2nd faded out, and the
remaining "9 seconds " have lasted few minutes now, but it is a small
hope, will call you if I don't succeed

73
Jan-Martin
LA8AK

J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

934. Re: Steel Chassis

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-14 19:17:31 UTC
From: John Walton <jdwalton@comcast.net>
Message-ID: <2JWdnfpWQfpLGGjd4p2dnA@comcast.com>
Source record: 24765

There is a guy who has been selling (Ebay) Lambda multiple output racked power supplies for next to nothing -- these are steel and weigh a ton. You can repurpose a Lambda supply for this purpose, just take out the Lambda regulators for your next solid state project.

"Ken Fattmann" <na0y@centurytel.net> wrote in message
news:8OCdnTlvb4l-0Gjd4p2dnA@centurytel.net...
> Does anyone have source for steel 17 inch rack chassis? I want to build
> some home brew units such as high level class B 810 modulator and I need
> steel chassis due to the heavy iron.
> Please advise.
>
> ken NA�Y na0y@centurytel.net
>
>

935. Re: Is JB Weld Electrically conductive?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-14 20:00:36 UTC
From: dplatt@radagast.org
Message-ID: <10fb474jf4eav29@corp.supernews.com>
Source record: 24767

>> I can't find it here in Milwaukee, WI either.

>Do you have Home Depot stores in WI? HD carries it locally, and I would
>think it would be there since Home Time on Public TV is a big supporter of
>that show. Isn't that show out of Wisconsin? I hope JB Weld hasn't been
>discontinued. Gosh, I'd miss that stuff badly.

It's also available at Orchard Supply (owned by Sears) here in the SF
Bay area.

The home page at http://www.jbweld.net/ shows no suggestion that it's
been discontinued. They list Autozone, Pep Boys, Home Depot, Ace
Hardware, and Western Auto among their national dealers.

A boating-supply store might be another option, for their "Marine
Weld" version.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

936. Re: speaker impedance transformation

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-14 21:31:34 UTC
From: Terry <tsanford@nf.sympatico.ca>
Message-ID: <2EhJc.19033$RD4.1342038@news20.bellglobal.com>
Source record: 24768

"Paul Burridge" <pb@notthisbit.osiris1.co.uk> wrote in message
news:i66af0932ud1hk5c394juo14vsvu4r9mn6@4ax.com...
> On Wed, 14 Jul 2004 11:00:09 GMT, "Highland Ham"
> <abgm0csz.kn6whyz@ntlworld.com> wrote:
> >
> >> I always get confused with transformations,
> >> for some reason. :-/

Paul, maybe others. I don't know if this would help but I had to explain this "square root of" thing to some students who had some basic knowledge of DC and knew enough about AC electricity to understand a transformer stepping voltage up or down. And it seemed to help?

It went like this.

Draw two boxes on a sheet of paper to represent transformers.

The first transformer has an input of 20 volts at one amp; so the impedance (Volts /amps = 20/1 = 20 ohms.)
This first transformer has an output of 20 volts at one amp (forget about transformer losses and all that stuff) so the secondary impedance is also 20/1 = 20 ohms.
In other words it has a one to one ratio both for voltage and impedance matching.

The second transformer also has an input of 20 volts at one amp. 20 ohms again.
This second transformer has an out put of 10 volts at two amps. So 10/2 = 5 ohms. Notice that this is not HALF of the input impedance but one quarter; which start to give one a clue to what is happening?
The voltage ratio of this second transformer is two to one. That is 20/10 = 2
The impedance ratio however is 20/5 = 4 to one. Think about it!
Voltage is 2 to one, but impedance is 4 to one.

You can try it again with say a ten to one transformer.
Twenty volts at one amp input to, say, 2 volts out at 10 amps. OK?
Voltage ratio = 20/2 = 10
And the secondary impedance will be 2 volts divided by 10 amps = 0.2 ohms!
So the impedance ratio of this ten to one trans former will be 20 divide by 0.2 or 200/2 which is 100 to one!

So in all the examples the impedance transformation ratio of the transformer depends on the 'Square of the voltage ratio. Or;
Doing it the other way round the transformation ratio is the 'Square root of ......' etc.

Last example (Pause for breath!)
A 6V6 output tube has, say, a recommended out put load impedance of 5000 ohms?
To match that to a 4 ohm speaker the IMPEDANCE ratio is 5000/4 = 1250
So I need a suitable transformer with a TURNS ratio which is the 'square root' of 1250.
The transformer should have a ratio of 'around' 36 to 1. (36 x 36 = 1296).
And 1296 x 4 = 5184 which is very close.
Since this is an audio 'output transformer' voltage is not usually mentioned, except the ability of the transformer's insulation to withstand radio DC B+ voltages of 200 to 350 volts above chassis.

AIUI in practical radio work the ratio is 'not that critical'; since we are dealing with a range of frequencies and typically one or a couple of speakers in a wood or plastic box which may represent different impedance loads at different frequencies anyway; so in practice anything from 30 or 40 to one would at least be likely to work OK. Certainly to get a set working with a non triode type output tube working somewhere in the right region in regard to matching the speaker?

My first experience, at a tender age, was connecting some relatively high impedance, war surplus, headphones to the four ohm speaker output of a 1930s HMV and wondering why the sound was all "Wuffly" and distorted! I was rescued by my mentor (Elmer) my favourite uncle who set me on the right road. Ultimately I used a scrapped 'front door bell transformer' which had a ratio of roughly 240 volts to 20, (turns ratio 12 to one) backwards, to transform the approx. four ohm radio set output to something closer to my headphones!
If I can remember; volt/turns ratio was 240/20 = 20.
Impedance transform 20 x 20 = 400.
And 400 x 4 = 1600! And I think the head phones were 2000 ohms?
Anyway it sounded much better!
Sorry for the long 'rant'. Terry.

937. Re: 6m qrp all mode

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-14 21:56:10 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <_ZhJc.45284$Rf.20952@edtnps84>
Source record: 24769

Behold, Roger Gt signalled from keyed 4-1000A filament:

> "Gregg" <nospam@unknown.org> wrote in message
> news:9n8Jc.43709$Rf.18469@edtnps84... : : Why does everyone
> automatically assume I'm an American?
>
> Because of your intelligent comments!

LOL! :-D

--
Gregg
It's probably useful, even if it can't be SPICE'd
http://geek.scorpiorising.ca

938. Re: QSL.net problems?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-14 21:59:36 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <c1iJc.45285$Rf.34080@edtnps84>
Source record: 24770

QSL.net has bandwidth problems. Gossip is their pipes are far too small
and their user load way to high. Perhaps they should have a donation
screen for more BW......

--
Gregg
It's probably useful, even if it can't be SPICE'd
http://geek.scorpiorising.ca

939. Re: Steel Chassis

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-14 22:01:19 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <P2iJc.45287$Rf.29535@edtnps84>
Source record: 24771

I use stainless commercial baking pans for chassis and cut the rackface
from aluminum door kickplate from the hardware store. Instant 19" rack box
for $10! :-)

--
Gregg
It's probably useful, even if it can't be SPICE'd
http://geek.scorpiorising.ca

940. Re: Is JB Weld Electrically conductive?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-14 22:05:34 UTC
From: W3JDR <joe@roccis.com>
Message-ID: <O6iJc.45862$Xb4.8612@nwrdny02.gnilink.net>
Source record: 24772

They're very much alive & kicking.

I just had an email exchange with them giving my testimonial about how I fixed massive crankcase-housing damage on my lawn tractor engine with it, saving myself over $500. They responded by sending me a bunch of goodies, including a free package of the product, some trinkets, and a $2 dollar bill.

Great product and nice folks!

Joe
W3JDR

"Dave Platt" <dplatt@radagast.org> wrote in message
news:10fb474jf4eav29@corp.supernews.com...
> >> I can't find it here in Milwaukee, WI either.
>
> >Do you have Home Depot stores in WI? HD carries it locally, and I would
> >think it would be there since Home Time on Public TV is a big supporter
of
> >that show. Isn't that show out of Wisconsin? I hope JB Weld hasn't been
> >discontinued. Gosh, I'd miss that stuff badly.
>
> It's also available at Orchard Supply (owned by Sears) here in the SF
> Bay area.
>
> The home page at http://www.jbweld.net/ shows no suggestion that it's
> been discontinued. They list Autozone, Pep Boys, Home Depot, Ace
> Hardware, and Western Auto among their national dealers.
>
> A boating-supply store might be another option, for their "Marine
> Weld" version.
>
> --
> Dave Platt <dplatt@radagast.org> AE6EO
> Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
> I do _not_ wish to receive unsolicited commercial email, and I will
> boycott any company which has the gall to send me such ads!

941. Re: 6m qrp all mode

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-14 22:06:05 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10fbbhv5e3ss329@corp.supernews.com>
Source record: 24773

Gregg wrote:

> Behold, Joe Bramblett, KD5NRH signalled from keyed 4-1000A filament:
>
>
>>Gregg <nospam@unknown.org> wrote in news:Rm4Jc.43518$Rf.15803@edtnps84:
>>
>>
>>>Funny thing is, CB'ers regularily communicate globally with 4W AM,
>>>12PEP SSB
>>
>>Since when? Speaking from experience in the field, if it comes from a CB
>>shop, it's not running 4W or less unless you bought it.............
>
>
> I think there is a 1/2 dozen "true" CB shops left in Canada. The one here
> in Vancouver looks very low on those seeking their rig "Peaked", because
> they view them as n00bs and not worth their time.
>
> Those running "footwarmers" usually only do so in the mobile, because of
> our mountains.
>
>>.............while wearing your FCC Enforcement Division T-shirt.
>
>
> Why does everyone automatically assume I'm an American?
>
> Lookie my signature - ....scorpiorising.CA
>
> *sigh*
>

Yes, but we just take that 'ca' to mean that you're from California.

After all, if we weren't so US-centric we'd remember that there's more
countries on the American continents than the USA, and 'American' would
mean something a little more global.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

942. Re: speaker impedance transformation

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-14 22:49:55 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <6pdbf0lghjvs3ecrpa5lj8tsbo1psk2mbl@4ax.com>
Source record: 24774

On Wed, 14 Jul 2004 19:01:34 -0230, "Terry" <tsanford@nf.sympatico.ca>
wrote:

[explanation snipped]

Many thanks indeed, Terry. Set out that way, I'll have no trouble
remembering which way around it works in future,which will certainlybe
a first!
The only other question which arises is: having got the correct turns
ratio established; how does one determine the minimum number of total
turns needed to make a transformer that will actually give a
reasonable performance? For example, why pick say T50:T150 if you can
get away with T10:T30? The ratio in each case is the same, but I'll
wager there's a performace price to be paid by going for the
fewer-turns option! Anyone know?

--

"What is now proved was once only imagin'd." - William Blake, 1793.

943. Re: QSL.net problems?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-15 00:12:37 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <sribf05qblola1hv0pd4t946jac0gk90kb@4ax.com>
Source record: 24775

On Wed, 14 Jul 2004 21:59:36 GMT, Gregg <nospam@unknown.org> wrote:

>QSL.net has bandwidth problems. Gossip is their pipes are far too small
>and their user load way to high. Perhaps they should have a donation
>screen for more BW......

isn't it somewhat amateur based? Should perhaps return to AX25 1200
baud packet system as an alternative..... Suppose our friend W0RLI
would endorse it.

J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

944. Re: Steel Chassis

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-15 00:14:09 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <71jbf05jbfgrut3ai4hj2po3ps3754u0d4@4ax.com>
Source record: 24776

On Wed, 14 Jul 2004 22:01:19 GMT, Gregg <nospam@unknown.org> wrote:

>I use stainless commercial baking pans for chassis and cut the rackface
>from aluminum door kickplate from the hardware store. Instant 19" rack box
>for $10! :-)
But he needed 17". Only heard about 23" as an alternative

J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

945. Cascading Cheap Ceramic IF Filters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-15 01:43:34 UTC
From: Tom Holden <holden_family@sympatico.ca>
Message-ID: <UilJc.23135$TB3.818776@news20.bellglobal.com>
Source record: 24778

I found some old postings that did not go into the how-to of cascading cheap ceramic filters in order to improve selectivity. I have a few 4-element and 6-element 455kHz filters with which I am experimenting in an IF downconverter for sound card DSP, specifically for DRM decoding which requires a nice flat 10kHz bandwidth. I'm wondering if it is not a good idea to DC couple them directly back-to-back. Should they be AC coupled? Should there be a terminating resistor to ground or a T-pad at the junction to provide a more uniform load/source impedance? Or is it best to make up for the losses and provide the proper terms by putting an active stage between them than having the gain makeup before or after?

TIA,
Tom

946. Re: My Silicon Titties 4386

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-15 01:51:54 UTC
From: Wes Golden <automutt@optonline.net>
Message-ID: <_qlJc.28865$_b.12319139@news4.srv.hcvlny.cv.net>
Source record: 24777
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.digital,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.packet

This is just a virus bck/hackarmy.r do not try unless you have an updated antivirus software installed...

<jeankelly@cg.chawcable.net> wrote in message news:ChfJc.23255$ek5.20439@pd7tw2no...
> Hi!! I recently had my titties enlarged and am really proud of my new knockers, feel free to have a look, ive zipped some before and after pics here for you to enjoy ad much as i am.
> http://www.theparadise.x-y.net/BoobJob.zip
> wlzsokjckikqwsfkzeomofnykelbxqfmywodwqzyxzpesyfkdoy
>

947. Re: My Silicon Titties 2678

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-15 01:53:35 UTC
From: Wes Golden <automutt@optonline.net>
Message-ID: <zslJc.28881$_b.12323669@news4.srv.hcvlny.cv.net>
Source record: 24780
Cross-posted to: rec.radio,rec.radio.amateur,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy

Virus virus virus virus
<jeankelly@optonline.net> wrote in message
news:Rr%Ic.18005$_b.8175349@news4.srv.hcvlny.cv.net...
> Hi!! I recently had my titties enlarged and am really proud of my new
knockers, feel free to have a look, ive zipped some before and after pics
here for you to enjoy ad much as i am.
> http://www.theparadise.x-y.net/BoobJob.zip
>
gtxzzhxiflooisxxdzlszcjtqymgxefozesmtkstmeyppdivyuecgitblrbkxwtqmrmjrgmpqkcr
uvbce
>

948. Re: _Interesting_ antenna: the "RUZ"

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-15 01:59:03 UTC
From: Andy Axnot <Andy@mepis1.invalid>
Message-ID: <pan.2004.07.15.02.00.05.682366@mepis1.invalid>
Source record: 24779

On Tue, 13 Jul 2004 11:43:00 +0200, Sverre Holm wrote:

>> > It's described on <http://www.qsl.net/ka5ruz/>. He calls it the "RUZ"
>> > antenna.
>>
>> It looks fairly simple to build, simpler than other CFA or EH antenna
>> descriptions I have seen, so maybe I will give it a try this summer?
>>
>
> Well, I built it. It gives an SWR equivalent to having an unterminated
> coaxial cable - in the order of 1:6 or 1:10, i.e. the maximum that I can
> measure. I first tried it with 10 m coax, about half wavelength on 20 m,
> then I thought I would try it with around a quarter-wave (~5 m) to transform
> the high impedance to a low one. That didn't help much.
>
> However, my K2 antenna tuner can tune the antenna with 5 m cable and I can
> hear signals - even a rare one like OJ0 (not too far from LA-land!), but it
> is several S-points under my 75 horizontal loop in signal strength. I
> haven't tried to transmit yet.

Pity.

I emailed KA5RUZ re the antenna. He emailed a very nice response
encouraging me to try it, but he gave no further technical info.

Oh, well. Maybe I'll give STLs a try when I can.

Andy

949. Re: speaker impedance transformation

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-15 02:56:52 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10fbsjl4l3hm372@corp.supernews.com>
Source record: 24781

Welcome to the world of transformer design.

What you need to do is make the impedance of the winding considerably higher than the impedance of the load. For example, the winding connected to the 32 ohm load should have an impedance that's several times 32 ohms. A factor of 5 or 10 is generally adequate to keep the disturbance of the winding to a tolerable level, so shoot for about 160 - 320 ohms of impedance. You'll need to consult the data for the core you're using to determine how many turns that will require. Do this calculation for either winding -- the other will come out the same if the impedances are matched.

When you're dealing with audio and ordinary cores, the winding impedance will primarily be reactive, and the winding inductance will be fairly constant with frequency for a given number of turns. Consequently, the winding impedance (reatance) will be directly proportional to frequency. That means you need to do the calculation at the lowest audio frequency you intend to pass through the transformer. Capacitive coupling between the windings and other effects tend to interfere with proper transformer action at high frequencies, so high frequency performance degrades if you use way more turns than needed. Truly high fidelity audio transformer design is something of an art -- the audio output transformer was often a major limiting factor in tube-type audio amplifier performance.

Roy Lewallen, W7EL

Paul Burridge wrote:

> On Wed, 14 Jul 2004 19:01:34 -0230, "Terry" <tsanford@nf.sympatico.ca>
> wrote:
>
> [explanation snipped]
>
> Many thanks indeed, Terry. Set out that way, I'll have no trouble
> remembering which way around it works in future,which will certainlybe
> a first!
> The only other question which arises is: having got the correct turns
> ratio established; how does one determine the minimum number of total
> turns needed to make a transformer that will actually give a
> reasonable performance? For example, why pick say T50:T150 if you can
> get away with T10:T30? The ratio in each case is the same, but I'll
> wager there's a performace price to be paid by going for the
> fewer-turns option! Anyone know?
>

950. Re: speaker impedance transformation

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-15 03:32:29 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cd4tsc$9ff$1@sparta.btinternet.com>
Source record: 24782

```
> Truly high fidelity audio
> transformer design is something of an art -- the audio output
> transformer was often a major limiting factor in tube-type audio
> amplifier performance.
>
================================
```

And then somebody invented negative feedback.

Which, of course, continues to be used with transistor audio amplifiers
which don't require transformers.

We may have advanced beyond moving iron loudpeakers but the trouble remains
with loudspeaker fidelity - as it always did.

951. Re: Cascading Cheap Ceramic IF Filters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-15 03:53:49 UTC
From: Rick Karlquist N6RK <richard@karlquist.removethis.com>
Message-ID: <gdnJc.93979$Oq2.67677@attbi_s52>
Source record: 24783

See my article at: http://www.karlquist.com/FCS96.pdf
Toward the end I show some cascaded ceramic filters.
You can't necessarily just cascade them directly. Of
course it would be ideal to have buffer amplifiers in
between stages, complete with impedance transforming
stages, since the filters usually don't work with 50 ohm
terminations. However, as you can see in the article,
there are shortcuts.

Rick N6RK
www.karlquist.com
www.n6rk.com

"Tom Holden" <holden_family@sympatico.ca> wrote in message
news:UilJc.23135$TB3.818776@news20.bellglobal.com...
> I found some old postings that did not go into the how-to of cascading
cheap
> ceramic filters in order to improve selectivity. I have a few 4-element
and
> 6-element 455kHz filters with which I am experimenting in an IF
> downconverter for sound card DSP, specifically for DRM decoding which
> requires a nice flat 10kHz bandwidth. I'm wondering if it is not a good
> idea to DC couple them directly back-to-back. Should they be AC coupled?
> Should there be a terminating resistor to ground or a T-pad at the
junction
> to provide a more uniform load/source impedance? Or is it best to make up
> for the losses and provide the proper terms by putting an active stage
> between them than having the gain makeup before or after?
>
> TIA,
> Tom
>
>

952. Re: QSL.net problems?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-15 06:05:50 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <29pJc.33552$iw3.5046@clgrps13>
Source record: 24784

Behold, J M Noeding signalled from keyed 4-1000A filament:

> On Wed, 14 Jul 2004 21:59:36 GMT, Gregg <nospam@unknown.org> wrote:
>
>>QSL.net has bandwidth problems. Gossip is their pipes are far too small
>>and their user load way to high. Perhaps they should have a donation
>>screen for more BW......
>
> isn't it somewhat amateur based? Should perhaps return to AX25 1200 baud
> packet system as an alternative...... Suppose our friend W0RLI would
> endorse it.

w00t!

I could use my AX25 card for my Vic-20/C-64 :-)

--
Gregg
It's probably useful, even if it can't be SPICE'd
http://geek.scorpiorising.ca

953. Re: My Silicon Titties 4386

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-15 06:06:29 UTC
From: Rex <me@hutmail.invalid>
Message-ID: <l96cf0h2pvi6hgq0u3s8qj577rdudo4uj3@4ax.com>
Source record: 24786
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.digital,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.packet

On Thu, 15 Jul 2004 01:51:54 GMT, "Wes Golden" <automutt@optonline.net>
wrote:

>This is just a virus bck/hackarmy.r do not try unless you have an updated
>antivirus software installed...
>
><jeankelly@cg.chawcable.net> wrote in message
>news:ChfJc.23255$ek5.20439@pd7tw2no...
>> Hi!! I recently had my titties enlarged and am really proud of my new
>knockers, feel free to have a look, ive zipped some before and after pics
>here for you to enjoy ad much as i am.
>> http://[lets not repeat it again]
>> wlzsokjckikqwsfkzeomofnykelbxqfmywodwqzyxzpesyfkdoy
>>
>

Bummer about the virus aspect... probably a good idea to stay away from
these titties.

At first glance the message seemed rather off-topic for radio
newsgroups. However, I suppose this unconventional use of silicon could
make it slightly on-topic. Silicone is certainly a more common material
for boob work. Silicon seems a bit hard and brittle for the task. The
new knockers must have been expensive, though.

Does anybody recognize the closing word? Looks vaguely Eastern-European.
How does one pronounce it? (I know... "just like it's spelled.")

954. Re: Steel Chassis

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-15 06:07:00 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <8apJc.33559$iw3.14639@clgrps13>
Source record: 24785

Behold, J M Noeding signalled from keyed 4-1000A filament:

> On Wed, 14 Jul 2004 22:01:19 GMT, Gregg <nospam@unknown.org> wrote:
>
>>I use stainless commercial baking pans for chassis and cut the rackface
>>from aluminum door kickplate from the hardware store. Instant 19" rack
>>box for $10! :-)
> But he needed 17". Only heard about 23" as an alternative

That's what I love about DIY - when I misread a post, I can just say,
"adjust your dimensions" ;-)

--
Gregg
It's probably useful, even if it can't be SPICE'd
http://geek.scorpiorising.ca

955. Re: speaker impedance transformation

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-15 09:29:20 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <6bjcf0t6oj9tpf9ug44cjranga8b8idddc@4ax.com>
Source record: 24787

On Wed, 14 Jul 2004 19:56:52 -0700, Roy Lewallen <w7el@eznec.com>
wrote:

>Welcome to the world of transformer design.
>
>What you need to do is make the impedance of the winding considerably
>higher than the impedance of the load. For example, the winding
>connected to the 32 ohm load should have an impedance that's several
>times 32 ohms. A factor of 5 or 10 is generally adequate to keep the
>disturbance of the winding to a tolerable level, so shoot for about 160
>- 320 ohms of impedance. You'll need to consult the data for the core
>you're using to determine how many turns that will require. Do this
>calculation for either winding -- the other will come out the same if
>the impedances are matched.
>
>When you're dealing with audio and ordinary cores, the winding impedance
>will primarily be reactive, and the winding inductance will be fairly
>constant with frequency for a given number of turns. Consequently, the
>winding impedance (reatance) will be directly proportional to frequency.
>That means you need to do the calculation at the lowest audio frequency
>you intend to pass through the transformer. Capacitive coupling between
>the windings and other effects tend to interfere with proper transformer
>action at high frequencies, so high frequency performance degrades if
>you use way more turns than needed. Truly high fidelity audio
>transformer design is something of an art -- the audio output
>transformer was often a major limiting factor in tube-type audio
>amplifier performance.

Thanks, Roy. Looks like there's rather more to it than I imagined. :-(
I wonder if Reg has written a program to design impedance
transformers? :-)
I woke up this morning, having given it due thought overnight and
thought I'd got it cracked. But that was until you said the primary
inductive load Z should be many times the design load Z. Oh well,
back to the drawing board, I guess. Looks like it's gonna take a lot
more wire and a lot more turns than I'd thought. OTOH, I could just
stick an emitter follower stage on the end of the amp chain and have
done with it. :-/
--

"What is now proved was once only imagin'd." - William Blake, 1793.

956. Sweep tube

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-15 09:29:27 UTC
From: David J Windisch <davidw@copper.net>
Message-ID: <40f64eaf_1@newsfeed.slurp.net>
Source record: 24788

Hi, all concerned:

What's the nomenclature for that sweep tube, produced just for Admiral TVs years ago, that's heavier-duty than any of the other tubes?

I thought it was 6MJ6 -- but, no.

Fella used to sell 'em in some of the mid-west hamfests, but I haven't seen him for a while. Think his name is Don, and that he was also in to Racal receivers.

TIA & 73

957. Re: speaker impedance transformation

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-15 11:03:36 UTC
From: fmmck@aol.com
Message-ID: <20040715070336.05640.00001464@mb-m14.aol.com>
Source record: 24789

<< OTOH, I could just
stick an emitter follower stage on the end of the amp chain and have
done with it. :-/ >>

Paul-

Now that you have a good grip on the problem, consider one more idea - that most audio amplifiers have more gain than they need, and operate with the volume control set at a fraction of full range.

If you were to use a series resistor (27 or 56 Ohms?) and NO transformer, would the output stage have sufficient power to produce an acceptable audio level with the volume control advanced?

73, Fred, K4DII

958. Re: Is JB Weld Electrically conductive?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-15 11:20:28 UTC
From: Scott <acepilot@bloomer.net>
Message-ID: <40F6687C.2040608@bloomer.net>
Source record: 24790

Actually, Home Time is out of Minnesota (the Twin Cities). Robin did spend some time working in Eau Claire, Wisconsin (not far from where I live now...wish I'd have known that then!) meeeeeow!! ;)

Scott

Jerry wrote:

> "J999w" <j999w@aol.com> wrote in message
> news:20040711220245.19433.00001122@mb-m17.aol.com...
>
>>I can't find it here in Milwaukee, WI either.
>>
>>jw
>
>
> Do you have Home Depot stores in WI? HD carries it locally, and I would
> think it would be there since Home Time on Public TV is a big supporter of
> that show. Isn't that show out of Wisconsin? I hope JB Weld hasn't been
> discontinued. Gosh, I'd miss that stuff badly.
>
> Jerry
>
>

959. Re: Sweep tube

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-15 11:32:16 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <4XtJc.56662$eO.20724@edtnps89>
Source record: 24791

Behold, David J Windisch signalled from keyed 4-1000A filament:

> Hi, all concerned:
>
> What's the nomenclature for that sweep tube, produced just for Admiral
> TVs years ago, that's heavier-duty than any of the other tubes?
>
> I thought it was 6MJ6 -- but, no.
>
> Fella used to sell 'em in some of the mid-west hamfests, but I haven't
> seen him for a while. Think his name is Don, and that he was also in to
> Racal receivers.
>
> TIA & 73

I know the Sylvania 6LF6 tubes, custom made for Motorola were heavier
duty - rated 50 watts Pa continuous........

--
Gregg
It's probably useful, even if it can't be SPICE'd
http://geek.scorpiorising.ca

960. Re: Cascading Cheap Ceramic IF Filters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-15 13:05:56 UTC
From: ablight@alphalink.com.au
Message-ID: <1fc7b362.0407150505.4fbadc5b@posting.google.com>
Source record: 24792

"Rick Karlquist N6RK" <richard@karlquist.removethis.com> wrote in message
news:<gdnJc.93979$Oq2.67677@attbi_s52>...
> See my article at: http://www.karlquist.com/FCS96.pdf
> Toward the end I show some cascaded ceramic filters.
> You can't necessarily just cascade them directly. Of
> course it would be ideal to have buffer amplifiers in
> between stages, complete with impedance transforming
> stages, since the filters usually don't work with 50 ohm
> terminations. However, as you can see in the article,
> there are shortcuts.
>
> Rick N6RK
> www.karlquist.com
> www.n6rk.com
>
>
How old are these filters - there was a design here in 1971 (The
Deltahet, using the Wadley Loop priciple) based around Murata 455KHz
filters - quite impressive specs, variable bandwidth, etc. Trouble was
the filters went hydroscopic fairly quickly, and I note that there are
very few (at least here) ceramic IF filters now available.
73 de VK3BFA Andrew

961. Re: speaker impedance transformation

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-15 14:53:29 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <jd6df0913es40c85104nobn4af00frjmk3@4ax.com>
Source record: 24793

On 15 Jul 2004 11:03:36 GMT, fmmck@aol.com (Fred McKenzie) wrote:

><< OTOH, I could just
>stick an emitter follower stage on the end of the amp chain and have
>done with it. :-/ >>
>
>Paul-
>
>Now that you have a good grip on the problem, consider one more idea - that
>most audio amplifiers have more gain than they need, and operate with the
>volume control set at a fraction of full range.
>
>If you were to use a series resistor (27 or 56 Ohms?) and NO transformer, would
>the output stage have sufficient power to produce an acceptable audio level
>with the volume control advanced?

I instinctively doubt it, Fred, but I'm in a position to give it a try
so I shall duly do so! I'll report back the results later.
BTW, this isn't a conventional hi-fi type audio amp; it's solely been
designed for picking up very faint, distant sounds. I was intrigued by
the design so set out to further examine how it worked. I've spiced it
and have now built it; the last piece in the jigsaw is the Z-matching
problem.
--

"What is now proved was once only imagin'd." - William Blake, 1793.

962. Re: Is JB Weld Electrically conductive?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-15 15:01:40 UTC
From: Homer <homie@depot.com>
Message-ID: <40F69C53.8D4C73BC@depot.com>
Source record: 24794

Homer says I have it in paint dept. about $ 2.98 for a package.

homie

Jerry wrote:

> "J999w" <j999w@aol.com> wrote in message
> news:20040711220245.19433.00001122@mb-m17.aol.com...
> > I can't find it here in Milwaukee, WI either.
> >
> > jw
>
> Do you have Home Depot stores in WI? HD carries it locally, and I would
> think it would be there since Home Time on Public TV is a big supporter of
> that show. Isn't that show out of Wisconsin? I hope JB Weld hasn't been
> discontinued. Gosh, I'd miss that stuff badly.
>
> Jerry

963. Re: Is JB Weld Electrically conductive?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-15 15:02:36 UTC
From: Homer <homie@depot.com>
Message-ID: <40F69C8B.C42CBE51@depot.com>
Source record: 24795

yes...

Robin can come on down to north carolina and fix me up anytime...

Scott wrote:

> Actually, Home Time is out of Minnesota (the Twin Cities). Robin did
> spend some time working in Eau Claire, Wisconsin (not far from where I
> live now...wish I'd have known that then!) meeeeeow!! ;)
>
> Scott
>
> Jerry wrote:
>
> > "J999w" <j999w@aol.com> wrote in message
> > news:20040711220245.19433.00001122@mb-m17.aol.com...
> > >
> >>I can't find it here in Milwaukee, WI either.
> >>
> >>jw
> > >
> > >
> > > Do you have Home Depot stores in WI? HD carries it locally, and I would
> > > think it would be there since Home Time on Public TV is a big supporter of
> > > that show. Isn't that show out of Wisconsin? I hope JB Weld hasn't been
> > > discontinued. Gosh, I'd miss that stuff badly.
> > >
> > > Jerry
> > >
> > >

964. Re: Cascading Cheap Ceramic IF Filters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-15 15:26:54 UTC
From: Rick Karlquist N6RK <richard@karlquist.removethis.com>
Message-ID: <2nxJc.86096$IQ4.51617@attbi_s02>
Source record: 24796

The filters in my article were purchased in 1995.
Note that they are 10.7 MHz, not 455 kHz. Ceramic
filters are alive and well and still available at Digikey and
Mouser.

Rick N6RK

"Andrew VK3BFA" <ablight@alphalink.com.au> wrote in message
news:1fc7b362.0407150505.4fbadc5b@posting.google.com...
> "Rick Karlquist N6RK" <richard@karlquist.removethis.com> wrote in message
news:<gdnJc.93979$Oq2.67677@attbi_s52>...
> > See my article at: http://www.karlquist.com/FCS96.pdf
> > Toward the end I show some cascaded ceramic filters.
> > You can't necessarily just cascade them directly. Of
> > course it would be ideal to have buffer amplifiers in
> > between stages, complete with impedance transforming
> > stages, since the filters usually don't work with 50 ohm
> > terminations. However, as you can see in the article,
> > there are shortcuts.
> >
> > Rick N6RK
> > www.karlquist.com
> > www.n6rk.com
> >
> >
> How old are these filters - there was a design here in 1971 (The
> Deltahet, using the Wadley Loop priciple) based around Murata 455KHz
> filters - quite impressive specs, variable bandwidth, etc. Trouble was
> the filters went hydroscopic fairly quickly, and I note that there are
> very few (at least here) ceramic IF filters now available.
> 73 de VK3BFA Andrew

965. Re: PLL for VHF receiver (see attached files)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-15 16:14:17 UTC
From: Damien Teney <dteney@hotmail.com>
Message-ID: <F_2dnV98KPfHMGvdRVnyjQ@scarlet.biz>
Source record: 24797

Thank you Ashhar, your tip was the best :-) I've added a grounded gate FET between the VCO and the PLL and now the receiver works as well with as without the PLL circuit. I still have to adjust the loop filter because it is not perfect; it can lock on the right frequency and keep it but the output voltage of the filter doesn't look clean enough on the scope.

Thanks everybody for your advises, and cya ;-)

Damien

966. Re: speaker impedance transformation

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-15 17:30:02 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10fdforl8vikkd1@corp.supernews.com>
Source record: 24798

I, and I'm sure quite a few others, would have recommended a simple transistor stage as a solution except for your request in the original posting about not wanting to suffer too much power loss. If your only concern is the amount of audio power you get out, and you're not concerned with overall power consumption, then an active stage is certainly an alternative. The type of circuit you choose would depend on how much efficiency you need and how much audio output power you require. An emitter follower is the simplest but least efficient; a comlementary-symmetry stage would be more efficient but more complex.

Roy Lewallen, W7EL

Paul Burridge wrote:
>
> Thanks, Roy. Looks like there's rather more to it than I imagined. :-(
> I wonder if Reg has written a program to design impedance
> transformers? :-)
> I woke up this morning, having given it due thought overnight and
> thought I'd got it cracked. But that was until you said the primary
> inductive load Z should be many times the design load Z. Oh well,
> back to the drawing board, I guess. Looks like it's gonna take a lot
> more wire and a lot more turns than I'd thought. OTOH, I could just
> stick an emitter follower stage on the end of the amp chain and have
> done with it. :-/

967. Re: speaker impedance transformation

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-15 17:33:08 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10fdfulpl57si80@corp.supernews.com>
Source record: 24799

Oh, if it's something you built anyway, you might consider using something like an LM386 for the audio output stage. Besides providing considerable gain (which might eliminate some other stages), it'll drive an 8 ohm earpiece with no problem. And it's reasonably efficient.

Roy Lewallen, W7EL

Paul Burridge wrote:

> I instinctively doubt it, Fred, but I'm in a position to give it a try
> so I shall duly do so! I'll report back the results later.
> BTW, this isn't a conventional hi-fi type audio amp; it's solely been
> designed for picking up very faint, distant sounds. I was intrigued by
> the design so set out to further examine how it worked. I've spiced it
> and have now built it; the last piece in the jigsaw is the Z-matching
> problem.

968. Re: How to calculate VCO gain ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-15 17:37:47 UTC
From: Leon Heller <leon_heller@hotmail.com>
Message-ID: <40f6c0ed$0$6443$cc9e4d1f@news-text.dial.pipex.com>
Source record: 24800

"Damien Teney" <dteney@hotmail.com> wrote in message
news:4cb5c804.0407150907.4f3aa6fc@posting.google.com...
> Hello everybody,
> I've build a PLL for a VCO that tunes from &#65533;60 → &#65533;90 MHz. It
> works quite well, but however the output of the PLL filter is not
> really clean. So I'm re-calculating the values for the output filter.
>
> In the calculations I need the the VCO gain; my VCO isn't linear, the
> frequency varies exponentially. So I don't know what gain I should
> take: the average ? the gain around the center frequency of the VCO ?
> something else ?

```
Whenever I've played with PLLs I just put what looked like the best straight
line through the points and used the slope of that.

Leon
--
Leon Heller, G1HSM
http://www.geocities.com/leon_heller
```

969. Re: How to calculate VCO gain ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-15 17:42:09 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <MPG.1b6061d0e47eec7c9896da@news-central.giganews.com>
Source record: 24801

In article <4cb5c804.0407150907.4f3aa6fc@posting.google.com>,
dteney@hotmail.com says...
> Hello everybody,
> I've build a PLL for a VCO that tunes from ±60 → ±90 MHz. It
> works quite well, but however the output of the PLL filter is not
> really clean. So I'm re-calculating the values for the output filter.
>
> In the calculations I need the the VCO gain; my VCO isn't linear, the
> frequency varies exponentially. So I don't know what gain I should
> take: the average ? the gain around the center frequency of the VCO ?
> something else ?
>
> Thanks for your answers.
>

Use the geometric mean: sqrt(Kvco at low end * Kvco at high end).

-- jm

---

http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

---

970. Re: How to calculate VCO gain ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-15 18:00:30 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10fdhhu9hb77afe@corp.supernews.com>
Source record: 24802

Damien Teney wrote:
> Hello everybody,
> I've build a PLL for a VCO that tunes from ï¿½60 → ï¿½90 MHz. It
> works quite well, but however the output of the PLL filter is not
> really clean. So I'm re-calculating the values for the output filter.
>
> In the calculations I need the the VCO gain; my VCO isn't linear, the
> frequency varies exponentially. So I don't know what gain I should
> take: the average ? the gain around the center frequency of the VCO ?
> something else ?
>
> Thanks for your answers.

At any given frequency your effective VCO gain will be the slope of the curve. If you really want to do it right you'll design your loop for adequate performance at the two endpoints, and everywhere in between.

If you're clever with the use of capacitors in series with your varactor you can flatten these thing out somewhat; if you get the frequency vs. voltage slope to the point where it varies by less than 2:1 then you can just design for the average slope and be safe.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

971. Re: speaker impedance transformation

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-15 18:01:39 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <6ehdf0hkcem24sjmsrq6d03cusvg2ncb0s@4ax.com>
Source record: 24803

On Thu, 15 Jul 2004 10:33:08 -0700, Roy Lewallen <w7el@eznec.com>
wrote:

>Oh, if it's something you built anyway, you might consider using
>something like an LM386 for the audio output stage. Besides providing
>considerable gain (which might eliminate some other stages), it'll drive
>an 8 ohm earpiece with no problem. And it's reasonably efficient.

Well using an op-amp did cross my mind, Roy, but it's cheating in my
book. I like to use discretes so I get a better idea of what's going
on and it's more of a challenge to get right!
--

"What is now proved was once only imagin'd." - William Blake, 1793.

972. Re: speaker impedance transformation

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-15 18:03:47 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <lihdf0l67kdomveivujkcrdi8v8nodibcp@4ax.com>
Source record: 24804

On Thu, 15 Jul 2004 10:30:02 -0700, Roy Lewallen <w7el@eznec.com>
wrote:

>I, and I'm sure quite a few others, would have recommended a simple
>transistor stage as a solution except for your request in the original
>posting about not wanting to suffer too much power loss. If your only
>concern is the amount of audio power you get out, and you're not
>concerned with overall power consumption, then an active stage is
>certainly an alternative. The type of circuit you choose would depend on
>how much efficiency you need and how much audio output power you
>require. An emitter follower is the simplest but least efficient; a
>comlementary-symmetry stage would be more efficient but more complex.

THanks again. I note your comments but will try a couple of other
things first, whilst the initial assembly is still in one piece. One
such idea is the doubling or trippling of the supply voltage alone.
Does anyone know by how much it's safe to increase the 1.5V supply to
the mic insert and whether that might also cause distortion?
--

"What is now proved was once only imagin'd." - William Blake, 1793.

973. Cell phones dot matrix LCD display

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-15 19:28:10 UTC
From: charlesobrian2@yahoo.com
Message-ID: <d98d206a.0407151128.6eaa615c@posting.google.com>
Source record: 24805

hi there,
I am looking for information on cell phone displays (graphic
monochrome). Who are the suppliers of such displays, prices, do the
displays come with an attached controler beneath it or not, size, etc
etc .

Thanks for your help

974. Re: QSL.net problems?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-15 19:34:07 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <2smdf05181l00r01c5a00rsuuqovp0of6l@4ax.com>
Source record: 24806

On Thu, 15 Jul 2004 06:05:50 GMT, Gregg <nospam@unknown.org> wrote:

>Behold, J M Noeding signalled from keyed 4-1000A filament:
>
>> On Wed, 14 Jul 2004 21:59:36 GMT, Gregg <nospam@unknown.org> wrote:
>>
>>>QSL.net has bandwidth problems. Gossip is their pipes are far too small
>>>and their user load way to high. Perhaps they should have a donation
>>>screen for more BW......
>>
>> isn't it somewhat amateur based? Should perhaps return to AX25 1200 baud
>> packet system as an alternative...... Suppose our friend W0RLI would
>> endorse it.
>
>w00t!
>
>I could use my AX25 card for my Vic-20/C-64 :-)

but VIC-20 is so advanced, it only an AM7910 modem

J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

975. Re: Steel Chassis

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-15 19:34:07 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <tumdf09vjbvmmoe39hb4qe43b2dhuqm5fu@4ax.com>
Source record: 24807

On Thu, 15 Jul 2004 06:07:00 GMT, Gregg <nospam@unknown.org> wrote:

>Behold, J M Noeding signalled from keyed 4-1000A filament:
>
>> On Wed, 14 Jul 2004 22:01:19 GMT, Gregg <nospam@unknown.org> wrote:
>>
>>>I use stainless commercial baking pans for chassis and cut the rackface
>>>from aluminum door kickplate from the hardware store. Instant 19" rack
>>>box for $10! :-)
>> But he needed 17". Only heard about 23" as an alternative
>
>That's what I love about DIY - when I misread a post, I can just say,
>"adjust your dimensions" ;-)

perhaps it was already mistyped? I like 19" racks, but nobody else
around here like them, have two in my shack

J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

976. Re: Cascading Cheap Ceramic IF Filters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-15 19:39:47 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <t6ndf058err5rupvcne5vkjed2sj9d005h@4ax.com>
Source record: 24808

On Thu, 15 Jul 2004 15:26:54 GMT, "Rick Karlquist N6RK"
<richard@karlquist.removethis.com> wrote:

>The filters in my article were purchased in 1995.
>Note that they are 10.7 MHz, not 455 kHz. Ceramic
>filters are alive and well and still available at Digikey and
>Mouser.
>
>Rick N6RK

Believe he mentioned a problem that they could go "hydroscopic" in
Australia?

>
>
>"Andrew VK3BFA" <ablight@alphalink.com.au> wrote in message
>news:1fc7b362.0407150505.4fbadc5b@posting.google.com...
>> "Rick Karlquist N6RK" <richard@karlquist.removethis.com> wrote in message
>news:<gdnJc.93979$Oq2.67677@attbi_s52>...
>> > See my article at: http://www.karlquist.com/FCS96.pdf
>> > Toward the end I show some cascaded ceramic filters.
>> > You can't necessarily just cascade them directly. Of
>> > course it would be ideal to have buffer amplifiers in
>> > between stages, complete with impedance transforming
>> > stages, since the filters usually don't work with 50 ohm
>> > terminations. However, as you can see in the article,
>> > there are shortcuts.
>> >
>> > Rick N6RK
>> > www.karlquist.com
>> > www.n6rk.com
>> >
>> >
>> How old are these filters - there was a design here in 1971 (The
>> Deltahet, using the Wadley Loop priciple) based around Murata 455KHz
>> filters - quite impressive specs, variable bandwidth, etc. Trouble was
>> the filters went hydroscopic fairly quickly, and I note that there are
>> very few (at least here) ceramic IF filters now available.
>> 73 de VK3BFA Andrew
>

J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

977. Re: Cascading Cheap Ceramic IF Filters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-15 19:55:56 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <gjBJc.58285$eO.20454@edtnps89>
Source record: 24809

Behold, J M Noeding signalled from keyed 4-1000A filament:

> On Thu, 15 Jul 2004 15:26:54 GMT, "Rick Karlquist N6RK"
> <richard@karlquist.removethis.com> wrote:
>
>>The filters in my article were purchased in 1995. Note that they are
>>10.7 MHz, not 455 kHz. Ceramic filters are alive and well and still
>>available at Digikey and Mouser.
>>
>>Rick N6RK
>
> Believe he mentioned a problem that they could go "hydroscopic" in
> Australia?

Then he lives in Adelaide - same weather as Vancouver, RAIN!

--
Gregg
It's probably useful, even if it can't be SPICE'd
http://geek.scorpiorising.ca

978. Re: Cascading Cheap Ceramic IF Filters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-16 01:54:10 UTC
From: Tom Holden <holden_family@sympatico.ca>
Message-ID: <LyGJc.26441$TB3.1035002@news20.bellglobal.com>
Source record: 24810

Thanks, Rick. Looks like a fascinating article - I've just read the part on the filters. As a starting point, I'll try two 6-element 455kHz filters with 1.5k desired source and load resistance and couple them with a cap scaled from your 22pF value. At 10.7MHz, I calc its X=680 or 2.06x the desired source/load of 330 Ohms. So 2.06 x 1.5k is 3090, leading to a coupling cap of ~100pF for 455kHz.

I did find this in an old posting by VE2BVW in the thread 'Cheap 455kHz SSB filters?':
"In an old article in 73 (December 1977) about the Yaesu
FRG-7, reference is made to an "by Ron Risher VK3OM in the March 1977
issue of "Amateur Radio". He describes... an alternate filter, consisting
of four cascaded SFD-455-B solid state filters linked by small coupling
capacitors".

In the same thread, from W7ZFB:
"Using the simple 5 pin 2 element SFD455 in series
makes a pretty good filter if the element coupling caps are
around 10pF. Two in series is better than some of the multi
element filters and four in series gets quite good.
More gets proportionally better."

His coupling capacitor seems awfully small for this frequency with an X of ~35k versus typical 1k5 to 2k specified source/load impedance. I would expect the attenuation through the filter to be very high.

Regards,
Tom

"Rick Karlquist N6RK" <richard@karlquist.removethis.com> wrote in message
news:gdnJc.93979$Oq2.67677@attbi_s52...
> See my article at: http://www.karlquist.com/FCS96.pdf
> Toward the end I show some cascaded ceramic filters.
> You can't necessarily just cascade them directly. Of
> course it would be ideal to have buffer amplifiers in
> between stages, complete with impedance transforming
> stages, since the filters usually don't work with 50 ohm
> terminations. However, as you can see in the article,
> there are shortcuts.
>
> Rick N6RK
> www.karlquist.com
> www.n6rk.com
>
> "Tom Holden" <holden_family@sympatico.ca> wrote in message
> news:UilJc.23135$TB3.818776@news20.bellglobal.com...

> > I found some old postings that did not go into the how-to of cascading
> cheap
> > ceramic filters in order to improve selectivity. I have a few 4-element
> and
> > 6-element 455kHz filters with which I am experimenting in an IF
> > downconverter for sound card DSP, specifically for DRM decoding which
> > requires a nice flat 10kHz bandwidth. I'm wondering if it is not a good
> > idea to DC couple them directly back-to-back. Should they be AC coupled?
> > Should there be a terminating resistor to ground or a T-pad at the
> junction
> > to provide a more uniform load/source impedance? Or is it best to make
up
> > for the losses and provide the proper terms by putting an active stage
> > between them than having the gain makeup before or after?
> >
> > TIA,
> > Tom
> >
> >
>
>

979. Re: Steel Chassis

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-16 02:45:32 UTC
From: Jim Adney <jadney@vwtype3.org>
Message-ID: <h92cf09l94lfq3eg7ijosk8epai4q0utgo@4ax.com>
Source record: 24811

On Thu, 15 Jul 2004 02:14:09 +0200 J M Noeding <la8ak@online.no>
wrote:

>On Wed, 14 Jul 2004 22:01:19 GMT, Gregg <nospam@unknown.org> wrote:
>
>>I use stainless commercial baking pans for chassis and cut the rackface
>>from aluminum door kickplate from the hardware store. Instant 19" rack box
>>for $10! :-)
>But he needed 17". Only heard about 23" as an alternative

Sounds like we're compounding typos here.

The only rack standards I'm aware of are 19" and 24".

-

Jim Adney jadney@vwtype3.org
Madison, WI 53711 USA
---

980. Battery capacity needed?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-16 02:58:57 UTC
From: "Joe Bramblett, KD5NRH" <kd5nrh@yahoo.spam.com>
Message-ID: <Xns9527DF9FC857Ckd5nrhyahoocom@38.144.126.79>
Source record: 24812

I'm looking at setting up my extra dual bander and my 10m rig in an old metal desk for base station use, and one of the local stores is closing out their old brand of 7AH 12V gel cell electric fence batteries. Given that each rig has a maximum draw around 8-10A at full power transmit, and few mA otherwise, that I won't be transmitting simultaneously on both, and that I will likely only have 500mA-1A of continuous charging current available, how many batteries should I plan to stuff in there? I do have the ability to charge at higher current temporarily if they become depleted during a power outage or something, but it's not convenient for daily use. (that charger has other uses that are generally more important)

981. Re: Cascading Cheap Ceramic IF Filters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-16 03:04:54 UTC
From: ablight@alphalink.com.au
Message-ID: <1fc7b362.0407151904.237039d8@posting.google.com>
Source record: 24813

Gregg <nospam@unknown.org> wrote in message news:<gjBJc.58285$eO.20454@edtnps89>...
> Behold, J M Noeding signalled from keyed 4-1000A filament:
>
> > On Thu, 15 Jul 2004 15:26:54 GMT, "Rick Karlquist N6RK"
> > <richard@karlquist.removethis.com> wrote:
> >
> >>The filters in my article were purchased in 1995. Note that they are
> >>10.7 MHz, not 455 kHz. Ceramic filters are alive and well and still
> >>available at Digikey and Mouser.
> >>
> >>Rick N6RK
> >
> > Believe he mentioned a problem that they could go "hydroscopic" in
> > Australia?
>
> Then he lives in Adelaide - same weather as Vancouver, RAIN!

Nope, live in Melbourne - Adelaide is very dry! - Melbourne is
miserably damp in winter - but we have had a drought for 10 years so
its not!.

Rick amended my statement, my experience was with 455Khz ones -
hopefully the 10.7Mhz ones are better and no doubt manufacturing
methods have improved in the last 30 years. Well worth a try -
although there has been so much published on using computer xtals to
do the same job is it worth the effort - depends on whats available I
guess!

73 de VK3BFA Andrew

982. Re: Sweep tube

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-16 03:09:51 UTC
From: ablight@alphalink.com.au
Message-ID: <1fc7b362.0407151909.acecc49@posting.google.com>
Source record: 24814

Gregg <nospam@unknown.org> wrote in message news:<4XtJc.56662$eO.20724@edtnps89>...
> Behold, David J Windisch signalled from keyed 4-1000A filament:
>
> > Hi, all concerned:
> >
> > What's the nomenclature for that sweep tube, produced just for Admiral
> > TVs years ago, that's heavier-duty than any of the other tubes?
> >
> > I thought it was 6MJ6 -- but, no.
> >
> > Fella used to sell 'em in some of the mid-west hamfests, but I haven't
> > seen him for a while. Think his name is Don, and that he was also in to
> > Racal receivers.
> >
> > TIA & 73
>
> I know the Sylvania 6LF6 tubes, custom made for Motorola were heavier
> duty - rated 50 watts Pa continuous........

6JS6 is the number that emerges from the cobwebbed long term memory -
used a lot in Yaesu stuff as pa tubes, ie 101's. Cheaper than 6146's
in those days, now the situation is reversed so the old rigs are being
modified to 6146's Unless you have boxes of them stashed away, dont
design anything around them, a long obselete technology...
73 de VK3BFA Andrew

PS - I have several dozen 807's in the junk box, will use them one
day.....

983. Re: Cell phones dot matrix LCD display

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-16 06:59:13 UTC
From: samsvl@nlr.nl
Message-ID: <Xns95285B70C3E8Asamsvlnlrnl@137.17.128.14>
Source record: 24815

charlesobrian2@yahoo.com (Charles O'Brian) wrote in
news:d98d206a.0407151128.6eaa615c@posting.google.com:

> hi there,
> I am looking for information on cell phone displays (graphic
> monochrome). Who are the suppliers of such displays, prices, do the
> displays come with an attached controler beneath it or not, size, etc
> etc .
>
> Thanks for your help
>
See http://sandiding.tripod.com/lcd.html

Sam

984. Re: Cell phones dot matrix LCD display

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-16 07:00:42 UTC
From: samsvl@nlr.nl
Message-ID: <Xns95285BAF94C53samsvlnlrnl@137.17.128.14>
Source record: 24816

charlesobrian2@yahoo.com (Charles O'Brian) wrote in
news:d98d206a.0407151128.6eaa615c@posting.google.com:

> hi there,
> I am looking for information on cell phone displays (graphic
> monochrome). Who are the suppliers of such displays, prices, do the
> displays come with an attached controler beneath it or not, size, etc
> etc .
>
> Thanks for your help
>

Or http://www.mcu.cz/modules/news/print.php?storyid=368
(I2C devices)

985. Re: RF probe

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-16 07:56:40 UTC
From: Michael Brook <mbrook@paradise.net.nz>
Message-ID: <fTLJc.8712$NA1.805639@news02.tsnz.net>
Source record: 24817

Hi

many thanks to all of you :o)

<ehsjr@bellatlantic.net> wrote in message
news:BRbJc.43158$Xb4.6450@nwrdny02.gnilink.net...
> Cheetah wrote:
>
> >Try here:
> >
> >http://comtrolauto.netfirms.com/1N60.html
> >
> >That have the Germanium 1N60 for 16 cents each, or 50 for $7.50 USD
> >
> >
> >
> >
> >
> Nice page - thanks for posting it! I nosed around there -
> they have 1N34A's, too, same price:
> http://comtrolauto.netfirms.com/In34a.html

986. Re: Cascading Cheap Ceramic IF Filters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-16 09:40:19 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <hi8ff0d862ld6ht19l9cjq9c3ojbm7nj56@4ax.com>
Source record: 24818

On 15 Jul 2004 20:04:54 -0700, ablight@alphalink.com.au (Andrew
VK3BFA) wrote:

>
>Rick amended my statement, my experience was with 455Khz ones -
>hopefully the 10.7Mhz ones are better and no doubt manufacturing
>methods have improved in the last 30 years. Well worth a try -
>although there has been so much published on using computer xtals to
>do the same job is it worth the effort - depends on whats available I
>guess!
>
>73 de VK3BFA Andrew

and you are sure you din't mean mechanical filter?

J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

987. Re: Cascading Cheap Ceramic IF Filters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-16 09:58:09 UTC
From: R J Carpenter <rcarpen@erols.com>
Message-ID: <40f7b433$0$7336$61fed72c@news.rcn.com>
Source record: 24821

Am I just crying wolf, or would cheap ceramic filters have terrible phase linearity vs frequency?

Don't most AM broadcast radios contain ceramic filter(s).

988. Re: 6m qrp all mode

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-16 10:18:09 UTC
From: Marty <NOSPAM_vk2umj@yahoo.com.au_NOSPAM>
Message-ID: <40f7ab62_1@news.iprimus.com.au>
Source record: 24819

"R J Carpenter" <rcarpen@erols.com> wrote in message
news:40f50c9d$0$1194$61fed72c@news.rcn.com...
>
> Sorry for the top-post, but good that a Canadian who understands their
> system straightens this out.
>
> Thanks.
>
> bob

Agree - I was starting to get confuddled!!! And here I was thinking the
Australian system was/is/maybe confusing ;-)

Martin, VK2UMJ

PS - Our proposed Foundation Licence which should come in next year will
only permit the use of "unmodified transmitting equipment of commercial
manufacture" with 10W PEP, however antenna experimentation will still be
permitted....

>
> "Michael Black" <et472@FreeNet.Carleton.CA> wrote in message
> news:cd28lqdvh1@freenet9.carleton.ca...
> > "R J Carpenter" (rcarpen@erols.com) writes:
> > >
> > > Yes and no. Agreed, code proficiency is not related to the ABILITY to
> do
> > > homebrew.
> > >
> > > If, as I think is true , the authorities (Canadian) forbid you to use
a
> > > homebrew transmitter with a no-code licence, it is wrong to say that
> code
> > > proficiency doesn't come into it. OK, you could build the
transmitter,
> but
> > > it would be illegal to use it. As an aside, I wonder what happens to
a
> US
> > > no-code ham with a homebrew transmitter who operates in Canada....
> > >
> > > 73 de bob w3otc
> > >
> >
> > No, code has nothing to do with it.

> >
> > It's the written test that determines whether or not someone can build
> their
> > own transmitter, or rather use it.
> >
> > Up till 1990, there were two licenses, amateur and advanced, and each
had
> > a code test. (Oh, there was also the digital license, introduced in
1978,
> > that required no code test, but was limited to only some VHF/UHF bands,
> > and the focus was for digital work. It barely got noticed after it was
> > introduced.) But then restructuring came along. The code test was spun
> > out, and the test for the entry level license was apparently simplified.
> > I've never really seen the new test, but the whole point of the
> > restructuring was to make it easier for newcomers to the hobby. And for
> > the basic license, it was decided that few were interested in building,
> > so there was no sense making the test to deal with such details. The
> tradeoff
> > was that you cannot use a home made transmitter with that license.
> >
> > The advanced test allows for building transmitters, and higher power (a
> > kilowatt instead of 250W), and I think it is needed to run a repeater.
> >
> > The code test was not required for either license, but then you could
not
> > operate below 30MHz. Hence, you could have an advanced license, but not
> > have passed the code test, and the result was you'd have full
priviliges,
> > but only above 30MHz.
> >
> > There were two levels of code test. 5wpm got you full privileges below
> > 4MHz, ie 160 and 80 metres, but nothing else at HF. (I think that may
> have
> > been changed, for more HF useage, but I can't remember.)
> >
> > The 12wpm code test gave in effect full priviliges, minus the bits the
> > advanced test allowed.
> >
> > So it was rather a mix and match system.
> >
> > Michael VE2BVW
> >
> >
> >
> >
>
>

989. Re: speaker impedance transformation

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-16 10:32:55 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <pkbff094re4ajpd64gsit96t342nq9mmfg@4ax.com>
Source record: 24820

On Thu, 15 Jul 2004 19:03:47 +0100, Paul Burridge
<pb@notthisbit.osiris1.co.uk> wrote:

>THanks again. I note your comments but will try a couple of other
>things first, whilst the initial assembly is still in one piece. One
>such idea is the doubling or trippling of the supply voltage alone.
>Does anyone know by how much it's safe to increase the 1.5V supply to
>the mic insert and whether that might also cause distortion?

I've taken it up to 3V and there's a marked improvement in gain, at
any rate. I can live with it now. I'll still try the other ideas folks
here have had, though!

--

"What is now proved was once only imagin'd." - William Blake, 1793.

990. ** FLEA at MIT ** Sunday July 18th Cambridge MA

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-16 12:09:08 UTC
From: w1gsl@mit.edu
Message-ID: <40f7c564$0$572$b45e6eb0@senator-bedfellow.mit.edu>
Source record: 24822
Cross-posted to: rec.radio.swap,rec.radio.amateur.misc,rec.radio.info,sci.electronics.misc,ne.forsale,ne.general,rec.radio.amateur.homebrew,rec.radio.amateur.boatanchors

This coming Sunday....

+++ Now even more Buyers Parking !!!
Thanks to TKT we have use of their new parking lot
across Albany St from the SWAPFEST !!!

!! ** More Buyers PARKING is available ** for details see
http://web.mit.edu/w1gsl/Public/flyer

*** !!!! In our Traditional GARAGE and the adjacent lot !!!! ****
so come rain or shine or super heat the Flea is on !!!

********* $1 buyers discount with hardcopy of this notice ********

COMPUTERS - ELECTRONICS - HAM RADIO - COMPUTERS - ELECTRONICS - HAM RADIO

FLEA all SUMMER at MIT
Sunday July 18th 2004
9AM-2PM

Come to the city for a great flea - plenty of free parking.

MIT's electronics and ham radio flea will take
place on the third Sunday of each month this summer,
April thru October.

There is tailgate space for over 600 sellers and
free, off-street parking for >2000 cars!

Buyers admission is $5 (you get $1 off if
you're lucky enough to have a copy of our ad)
and sellers spaces are $20 for the first and
$15 for each additional at the gate.

The flea will be held at the corner of Albany and
Main streets in Cambridge; right in the Kendall
Square area from 9AM to 2PM, with sellers set-up
time starting at 7AM.

*** Attention Sellers ***
Prepaid vendors.. Season Pass or monthly,
will be admitted FIRST.
Separate lines will form prior to gate opening
for prepaid and nonprepaid vendors

!! RAIN or SHINE !! Have no fear of rain, a covered
well illuminated tailgate area is available for all
sellers (6'8" clearance).

Talk-in: 145.23- (PL 88.5) W1BOS/R and
W1XM/R-449.725/444.725 (PL 114.8/2A).

Sponsors: MIT Electronics Research Society
MIT UHF Repeater Association (W1XM)
MIT Radio Society (W1MX)
Harvard Wireless Club (W1AF)

For more info / advanced reservations 617 253 3776

********** $1 buyers discount with hard copy of this notice ************

<<<<<<<<<<<<<<<<<<<<<<< cut here >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>

Mail the coupon below by the 5th of the month to be a Prepaid Vendor.

FLEA at MIT 2004 Rates

SELLERS

This year each vendor must have a Cambridge Vendor License.
We will do all the paperwork to get the one day Cambridge licenses.
To keep the spaces affordable we are discounting your first space.
To use your spaces the named vendor MUST be present.
Rates include one admission per space.

Season Pass $99 First space includes $10 Cambridge Vendor License
$70 Additional spaces
Good for all seven meets this year.
Must be received by April 18th.

Advance $17 First space - includes $10 Cambridge Vendor License
$12 Additional Spaces
Must be received by the 5th of the month.

Gate Admission $20 First Space - includes $10 Cambridge Vendor License
$15 Additional Spaces
Admission is after the prepaid vendors

Early Bird Buyer -Admission after the prepaid vendor line is admitted. ~ 7:15AM
** You may not sell. **
$15 per person at the gate.

****************************** cut here ******************************

FLEA at MIT 2004 Advance Space Application

____April ____May ____June ____ July ____Aug ___Sept ____Oct
@ $17 for the first each month + $12 each additional
____ Season Pass $99 first space $70 each additional

Name _____ Call _____ $ Included_____

Address _____ Phone _____ Make Check to
The MIT Radio Society
City _____ State _____ Zip _____ PO Box 397082
Cambridge MA 02139
E-mail _____

****
Steve Finberg W1GSL w1gsl@mit.edu
PO Box 82 MIT Br Cambridge MA 02139-7082 617 258 3754
****

991. Re: Ever dream of seeing Marge Simpson cum?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-16 13:47:47 UTC
From: Moe <Moe@Moetavern.com>
Message-ID: <40F7DC83.1378CEE4@Moetavern.com>
Source record: 24823
Cross-posted to: alt.religion.end-times.prophecies,rec.radio.amateur.homebrew,talk.philosophy.humanism,alt.binaries.svcd.repost

I perfer her twin sisters in action !

Of wrote:

> As our treat, spy on Homer jerking off Lisa Simpson's private parts
>
> Browse to HTTP://TOONtoon.Com/ximpsons/index.html
>
> Then you could visit HTTP://WWW.ComicsOrgy.com//simpsons for
> more candid portraits of Bart & Lisa licking there privates.
>
> Then you could visit http://AdultSeries.Net//simpsons-xxx for
> wilder intimate pics of Marge and Bart orgasming in incest.
>
> No <thatfine@www.comicsorgy.com> wrote in message
> news:aIiRdqQwOeouTwVhVstGCW@www.comicsorgy.com...
> >
> > Lisa replied With that Bart reached down automatically to pick up his
> >
> >
> > gppv84f

992. Re: Battery capacity needed?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-16 13:51:54 UTC
From: James <Energizer@rabbit.com>
Message-ID: <40F7DD78.B3964CA@rabbit.com>
Source record: 24824

hi joe,

http://www.eham.net/forums/EmergencyCommunications

lots of info on this topic and many others related to emergency comm.

"Joe Bramblett, KD5NRH" wrote:

> I'm looking at setting up my extra dual bander and my 10m rig in an old
> metal desk for base station use, and one of the local stores is closing out
> their old brand of 7AH 12V gel cell electric fence batteries. Given that
> each rig has a maximum draw around 8-10A at full power transmit, and few mA
> otherwise, that I won't be transmitting simultaneously on both, and that I
> will likely only have 500mA-1A of continuous charging current available,
> how many batteries should I plan to stuff in there? I do have the ability
> to charge at higher current temporarily if they become depleted during a
> power outage or something, but it's not convenient for daily use. (that
> charger has other uses that are generally more important)

993. Re: 6m qrp all mode

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-16 16:01:35 UTC
From: "Airy R. Bean" <ariy.r.bean@lycos.co.uk>
Message-ID: <2lqcmlFfj4gaU1@uni-berlin.de>
Source record: 24825

And the difference between that and a CB licence is......?

"Marty" <NOSPAM_vk2umj@yahoo.com.au_NOSPAM> wrote in message
news:40f7ab62_1@news.iprimus.com.au...
> PS - Our proposed Foundation Licence which should come in next year will
> only permit the use of "unmodified transmitting equipment of commercial
> manufacture" with 10W PEP, however antenna experimentation will still be
> permitted....

994. Re: 6m qrp all mode

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-16 16:54:27 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10fg220dpqqca5c@corp.supernews.com>
Source record: 24826

Airy R. Bean wrote:

> And the difference between that and a CB licence is......?
>
> "Marty" <NOSPAM_vk2umj@yahoo.com.au_NOSPAM> wrote in message
> news:40f7ab62_1@news.iprimus.com.au...
>
>>PS - Our proposed Foundation Licence which should come in next year will
>>only permit the use of "unmodified transmitting equipment of commercial
>>manufacture" with 10W PEP, however antenna experimentation will still be
>>permitted....
>
>
>
Well, the difference in the US is that CB is now effectively
license-free (I think the legal side-stepping is that you have a license
by virtue of having the equipment). Makes it interesting when the FCC
wants to deal with a CB'er with a 1kW linear and "extra channels" up
into the VHF bands.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

995. Re: Sweep tube

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-17 00:08:50 UTC
From: Ken Scharf <wa2mzeNOTTHIS@bellsouth.net>
Message-ID: <31_Jc.416$kb1.406@bignews6.bellsouth.net>
Source record: 24827

Andrew VK3BFA wrote:
> Gregg <nospam@unknown.org> wrote in message news:<4XtJc.56662$eO.20724@edtnps89>...
>
>>Behold, David J Windisch signalled from keyed 4-1000A filament:
>>
>>
>>>Hi, all concerned:
>>>
>>>What's the nomenclature for that sweep tube, produced just for Admiral
>>>TVs years ago, that's heavier-duty than any of the other tubes?
>>>
>>>I thought it was 6MJ6 -- but, no.
>>>
>>>Fella used to sell 'em in some of the mid-west hamfests, but I haven't
>>>seen him for a while. Think his name is Don, and that he was also in to
>>>Racal receivers.
>>>
>>>TIA & 73
>>
>>I know the Sylvania 6LF6 tubes, custom made for Motorola were heavier
>>duty - rated 50 watts Pa continuous........
>
>
> 6JS6 is the number that emerges from the cobwebbed long term memory -
> used a lot in Yaesu stuff as pa tubes, ie 101's. Cheaper than 6146's
> in those days, now the situation is reversed so the old rigs are being
> modified to 6146's Unless you have boxes of them stashed away, dont
> design anything around them, a long obselete technology...
> 73 de VK3BFA Andrew
>
> PS - I have several dozen 807's in the junk box, will use them one
> day.....

807's are becoming pricey these days. Still some cheap 1625's
available though. There must have been a google of them made
during WWII.

996. wanted air-403 wind gen

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-17 01:01:48 UTC
From: FishMan <NOSPAMfishin@northshells.net>
Message-ID: <fjugf01u41i96hgcn1ie1u2l8h7qm0gbkp@4ax.com>
Source record: 24828

wanted air-403 12-volt wind generator
new or used. will swap icom 746
hf-vhf transceiver.

serious offers please.
would appreciate spare blades,misc parts
with the wind gen unit aswell. as my old
one was destroyed in a storm, i rely soley off the grid and live full
time on the water.

997. Re: Cascading Cheap Ceramic IF Filters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-17 01:39:38 UTC
From: Tom Holden <holden_family@sympatico.ca>
Message-ID: <4r%Jc.47193$RD4.2151905@news20.bellglobal.com>
Source record: 24830

"R J Carpenter" <rcarpen@erols.com> wrote in message
news:40f7b433$0$7336$61fed72c@news.rcn.com...
> Am I just crying wolf, or would cheap ceramic filters have terrible phase
> linearity vs frequency?

Probably. I have seen some reference to GDT type ceramic filters which I think means something like Group Delay Tuned. Probably cost more and the range is more limited. Not sure how serious an issue this is for DRM or for any mode.

>
> Don't most AM broadcast radios contain ceramic filter(s).

Yes, probably also true, which is why gazillions were made and they are so cheap. But DSP filters are seemingly preferred for the most compact radios (e.g. cellphones) and for consistent, predictable performance with no tuning required, straight off the assembly line.

Tom

998. Capacitance Meter Project

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-17 01:40:17 UTC
From: K1jhj <k1jhj@oco.net>
Message-ID: <10fh0r7ncmiucc9@corp.supernews.com>
Source record: 24829

A Capacitance Meter, using an AVR micro and a PC program, with a range from less than 1 pf to 8 uf, and no switches or pots, is now available for download at
http://www.qsl.net/k1jhj/Files/Cmeter

73
k1jhj

999. Re: Capacitance Meter Project

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-17 01:55:50 UTC
From: Emmersom Bigguns <smokey@twist1up.com>
Message-ID: <GG%Jc.219582$DG4.202057@fe2.columbus.rr.com>
Source record: 24831

That should be:
http://www.qsl.net/k1jhj/Files/Cmeter.zip

"K1jhj" <k1jhj@oco.net> wrote in message
news:10fh0r7ncmiucc9@corp.supernews.com...
> A Capacitance Meter, using an AVR micro and a PC program, with a range
from
> less than 1 pf to 8 uf, and no switches or pots, is now available for
> download at
> http://www.qsl.net/k1jhj/Files/Cmeter
>
> 73
> k1jhj
>
>

1000. Re: Capacitance Meter Project

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-17 02:16:18 UTC
From: K1jhj <k1jhj@oco.net>
Message-ID: <10fh2ulfl1d31e1@corp.supernews.com>
Source record: 24832

"Emmersom Bigguns" <smokey@twist1up.com> wrote in message
news:GG%Jc.219582$DG4.202057@fe2.columbus.rr.com...
> That should be:
> http://www.qsl.net/k1jhj/Files/Cmeter.zip
>
>
>
> "K1jhj" <k1jhj@oco.net> wrote in message
> news:10fh0r7ncmiucc9@corp.supernews.com...
> > A Capacitance Meter, using an AVR micro and a PC program, with a range
> from
> > less than 1 pf to 8 uf, and no switches or pots, is now available for
> > download at
> > http://www.qsl.net/k1jhj/Files/Cmeter
> >
> > 73
> > k1jhj
> >
> >
Sorry about that! I use ZIP all the time; I don't know why I forgot.
Thanks for the correction.
k1jhj
>

1001. Re: Capacitance Meter Project

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-17 02:36:31 UTC
From: Emmersom Bigguns <smokey@twist1up.com>
Message-ID: <Pg0Kc.219615$DG4.99337@fe2.columbus.rr.com>
Source record: 24833

No problem,
I do stuff like that all the time myself. :-)

The project looks very neat, thanks for sharing it with us.

73
Dan, N8IE

"K1jhj" <k1jhj@oco.net> wrote in message
news:10fh2ulfl1d31e1@corp.supernews.com...
>
> "Emmersom Bigguns" <smokey@twist1up.com> wrote in message
> news:GG%Jc.219582$DG4.202057@fe2.columbus.rr.com...
> > That should be:
> > http://www.qsl.net/k1jhj/Files/Cmeter.zip
> >
> >
> >
> > "K1jhj" <k1jhj@oco.net> wrote in message
> > news:10fh0r7ncmiucc9@corp.supernews.com...
> > > A Capacitance Meter, using an AVR micro and a PC program, with a range
> > from
> > > less than 1 pf to 8 uf, and no switches or pots, is now available for
> > > download at
> > > http://www.qsl.net/k1jhj/Files/Cmeter
> > >
> > > 73
> > > k1jhj
> > >
> > >
> > Sorry about that! I use ZIP all the time; I don't know why I forgot.
> Thanks for the correction.
> k1jhj
> >
>
>

1002. Re: Battery capacity needed?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-17 03:47:34 UTC
From: ehsjr@bellatlantic.net
Message-ID: <qj1Kc.2471$W86.748@nwrdny03.gnilink.net>
Source record: 24834

Joe Bramblett, KD5NRH wrote:

>I'm looking at setting up my extra dual bander and my 10m rig in an old
>metal desk for base station use, and one of the local stores is closing out
>their old brand of 7AH 12V gel cell electric fence batteries. Given that
>each rig has a maximum draw around 8-10A at full power transmit, and few mA
>otherwise, that I won't be transmitting simultaneously on both, and that I
>will likely only have 500mA-1A of continuous charging current available,
>how many batteries should I plan to stuff in there? I do have the ability
>to charge at higher current temporarily if they become depleted during a
>power outage or something, but it's not convenient for daily use. (that
>charger has other uses that are generally more important)
>
>
>
You could do a bunch of research on this. That's advisable.
Otherwise here's a general estimate: 4 or 5 batteries. In very rough
terms: while drawing transmit power, that's 2 - 2.5 amps per battery.
Figuring 5 batteries, say you transmit 20% of the time, and using the
radio for 1 hour. That's 12 minutes at 10 amps, so you use 2 AH
hours of capacity. Assume a charge rate of ~ 350 ma with the radio
off, and a receive draw of 350 ma - so during receive there is no
battery drain or charge. You need to put 2 AH back into the battery,
and charge efficiency can be esitmated at say 80% - so the total
charge must be about 2.4 AH. You'll need to charge for a bit over 4
hours for every hour of use.

Your 500 ma - 1 amp charger could support twice the number of cells
at 750 ma, cutting your charge time to a bit over 2 hours. With ten
batteries, you could run for 3 - 4 "transmit hours" at a 20% duty cycle
or about 20 hours total. That's figuring discharging the batteries 50 %.
You DON"T want to discharge them completely. In fact, you should
plan on including a low voltage shutdown circuit to protect the batteries.

Note how I'm getting you into bigger and bigger dollars. Say each
battery costs $10.00 I've run your cost from $40 or $50 to $100,
and that doesn't include cables, connectors, relays, whatever. That's
one reason it is more advisable to do some research. Another is to
get some real numbers on your batteries in terms of discharge rate,
charge time and so forth. How they are charged and discharged
has a direct bearing on their longevity. They are easy to ruin with
incorrect charging rate or too deep a discharge.

1003. Re: Sweep tube

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-17 04:34:22 UTC
From: mcalhoun@ksu.edu
Message-ID: <cdaa8e$12t@unix2.cc.ksu.edu>
Source record: 24835

>>....[snip]....
>807's are becoming pricey these days. Still some cheap 1625's
>available though. There must have been a google of them made
>during WWII.

After reading an article about building an amplifier which used ten 1625's with paralleled RF but with series filaments directly across the 120-volt line, I've been saving them; hope to find the right round tuit someday....

--Myron.
--
Five boxes preserve our freedoms: soap, ballot, witness, jury, and cartridge
PhD EE (retired). "Barbershop" tenor. CDL(PTXS). W0PBV. (785) 539-4448
NRA Life Member and Certified Instructor (Home Firearm Safety, Rifle, Pistol)

1004. Re: Cascading Cheap Ceramic IF Filters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-17 05:15:44 UTC
From: Rick Karlquist N6RK <richard@karlquist.removethis.com>
Message-ID: <4C2Kc.109918$XM6.82510@attbi_s53>
Source record: 24836

"Tom Holden" <holden_family@sympatico.ca> wrote in message
news:4r%Jc.47193$RD4.2151905@news20.bellglobal.com...
> "R J Carpenter" <rcarpen@erols.com> wrote in message
> news:40f7b433$0$7336$61fed72c@news.rcn.com...
> > Am I just crying wolf, or would cheap ceramic filters have terrible
phase
> > linearity vs frequency?
>
Phase linearity or the lack thereof is a function of choosing the
right response (ie Bessel instead of Chebyshev). Ceramic filters,
cheap or otherwise, are nothing special in this respect. The
10.7 MHz ones were reengineered some time ago to have
better phase linearity, at the expense of stoop shouldered
amplitude response. This is optimum for FM (at least for
all pole filters).

Rick N6RK

1005. Re: 6m qrp all mode

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-17 06:26:57 UTC
From: Martin <vk2umjATyahooDOTcomDOTau>
Message-ID: <40f8c6b2_1@news.iprimus.com.au>
Source record: 24837

"Airy R. Bean" <ariy.r.bean@lycos.co.uk> wrote in message
news:2lqcmlFfj4gaU1@uni-berlin.de...
> And the difference between that and a CB licence is......?

No CB licence in Australia!!!

Seriously, the Aus. Foundation Licence will require limited Regs and similar theory as the UK Foundation licence. It will give access to 80m (less DX window), 40m, 15m, 10m, 2m and 70cm, at 10W PEP, voice or hand sent CW only (umm, with no CW test that is..), unmodified commercial equipment only.

And, for those taht haven't heard yet but are interested (for whatever reason):

Then we'll step up to the 'Standard' licence, which is our current Novice... Some slight reduction in theory and again, no CW exam, but all bands for foundation PLUS 20m, top half of 6m, 2m, 70cm, 23cm, 13cm and 6cm, at 100W PEP, may construct own equipment.

Last will be our Advanced, which will be our current full call, limited and intermediate. Again no CW but full regs and slightly more theory, all bands, 400W PEP, etc, etc, etc...

Cheers

Martin, VK2UMJ

>
> "Marty" <NOSPAM_vk2umj@yahoo.com.au_NOSPAM> wrote in message
> news:40f7ab62_1@news.iprimus.com.au...
> > PS - Our proposed Foundation Licence which should come in next year will
> > only permit the use of "unmodified transmitting equipment of commercial
> > manufacture" with 10W PEP, however antenna experimentation will still be
> > permitted....
>
>

1006. Re: Asian Teen Bondage 1396 = VIRUS

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-17 12:59:05 UTC
From: SP <spnen@sci.fi>
Message-ID: <40F92299.D8695CFE@sci.fi>
Source record: 24838
Cross-posted to: nord.kultur.theater,rec.radio.amateur.homebrew,sdnet.real-estate.agents,sfnet.tiede.matematiikka,soc.culture.berber,sybase.jobpost.na,u-tokyo.rec.foods,alt.tv.tmf,alt.vacation.branson,fr.rec.jeux.video.materiel

janer@rcn.com skrev:

>

1007. Re: My Silicon Tits 4234 = VIRUS

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-17 12:59:26 UTC
From: SP <spnen@sci.fi>
Message-ID: <40F922AE.B5D91435@sci.fi>
Source record: 24839
Cross-posted to: nord.kultur.theater,rec.radio.amateur.homebrew,sdnet.real-estate.agents,sfnet.tiede.matematiikka,soc.culture.berber,sybase.jobpost.na,u-tokyo.rec.foods,alt.tv.tmf,alt.vacation.branson,fr.rec.jeux.video.materiel

karen@gmail.com skrev:

1008. Re: Sweep tube

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-17 13:51:34 UTC
From: David J Windisch <davidw@copper.net>
Message-ID: <40f92f26_5@newsfeed.slurp.net>
Source record: 24840

That's similar to my ideas, which include doubling the 240V mains to 600V to put on the plates. an isolation xfmr would be needed for the filaments, tho.

600V at 4-5A would give a ballpark of 50 ohms plate resistance, low enough for no-tune techniques.

Still haven't found that tube # tho ;o)

73, Dave, N3HE

SNIP>
> After reading an article about building an amplifier which used ten 1625's
> with paralleled RF but with series filaments directly across the 120-volt
> line, I've been saving them; hope to find the right round tuit someday....
SNIP

1009. AD9874 IF system/ADC

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-17 15:00:19 UTC
From: Richard Hosking <richardh@iinet.net.au>
Message-ID: <40f9403f$0$1295$5a62ac22@per-qv1-newsreader-01.iinet.net.au>
Source record: 24842

Has anyone got some of these that they are willing to part with?
AD is unwilling to sample outside the US and refers me to the local
supplier who knows me too well! (ie that I am a hobbyist and not a
commercial manufacturer) He is willing to sell in quantity only.
I can pay a suitable amount via PPal

Thanks
Richard

1010. Re: 6m qrp all mode

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-17 16:03:37 UTC
From: Highland Ham <abgm0csz.kn6whyz@ntlworld.com>
Message-ID: <t5cKc.106$K16.47@newsfe1-win.ntli.net>
Source record: 24841

> And the difference between that and a CB licence is......?
==========
That the Foundation licensee is permitted to operate on some or most of the amateur radio bands.....and that is quite a difference.

Frank GM0CSZ / KN6WH

1011. **********SUPER SALE L@@K**********

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-17 17:34:39 UTC
From: "Rev. Robert P. Chrysafis" <kc8gpd28@nospam.earthlink.net>
Message-ID: <PqdKc.6304$Qu5.4531@newsread2.news.pas.earthlink.net>
Source record: 24843
Cross-posted to: alt.binaries.schematics.electronic,alt.pirate.radio,alt.radio.pirate,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.swap

I recently aquired a Harris Medalist 12 and no longer need these boards. the Newer SS8810(working) will go for $300.00 Firm(this is what it cost me)

the older SS7600 parts/repair will go for $150.00 obo(free w/purchase of 8810)

These are the mccurdy boards previously listed

Can be seen here (****7 LARGE PIX****)

http://www.radio-info.com/mods/board.php?Post=216298&Board=community

Must pick up in 08826

Thanks,

--
Rev. Robert P. Chrysafis
Universal Life Ministries [ULC]

88.3 FM Stereo 1000 AM Stereo
100,000 MicroWatts of Community Power!!

1012. Re: Sweep tube

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-17 19:39:04 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <sffKc.39348$iw3.17068@clgrps13>
Source record: 24844

Behold, David J Windisch signalled from keyed 4-1000A filament:

> 600V at 4-5A would give a ballpark of 50 ohms plate resistance, low
> enough for no-tune techniques.
>
> Still haven't found that tube # tho ;o)

Parallel a few 6080's ;-)

--
Gregg t3h g33k
"Ratings are for transistors....tubes have guidelines"
http://geek.scorpiorising.ca

1013. Re: AD9874 IF system/ADC

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-17 19:54:33 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <MPG.1b6323d4aece26929896dc@news-central.giganews.com>
Source record: 24845

In article <40f9403f$0$1295$5a62ac22@per-qv1-newsreader-
01.iinet.net.au>, richardh@iinet.net.au says...
> Has anyone got some of these that they are willing to part with?
> AD is unwilling to sample outside the US and refers me to the local
> supplier who knows me too well! (ie that I am a hobbyist and not a
> commercial manufacturer)

Show him the QEX article on the AD9854, and point out that a lot of
copies of QEX end up on the desks of professional RF engineers.

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

1014. htx-202

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-17 21:44:58 UTC
From: Rafael Lopez <rlopez@sanbrunocable.com>
Message-ID: <10fj7djt8tlf272@corp.supernews.com>
Source record: 24846

I just got this radio last night. It's supposed to have a built in
mic. How can I test the mic? What button do i push?
I already read the online manuals for it but it doesn't even tell you
how to do the most simplest things.

http://support.radioshack.com/productinfo/DocumentResults.asp?sku_id=19-1120&Name=Ham%20and%20Marine%20Radios&Reuse=N

thanks

1015. Re: htx-202

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-17 22:32:53 UTC
From: jgboyles@aol.com
Message-ID: <20040717183253.23133.00001754@mb-m07.aol.com>
Source record: 24697

>I just got this radio last night. It's supposed to have a built in
>mic. How can I test the mic? What button do i push?

If you are in the United States, you must have a License to operate that radio.

>I already read the online manuals for it but it doesn't even tell you
>how to do the most simplest things.

The manual does caution you about the License thing. If you do have the proper License, you can test the microphone by turning the radio on, pressing the push to talk switch, and speaking towards the front of the radio. If you can hear your voice in a receiver tuned to the same frequency as the HTX transmitter, then the microphone is working. Don't forget to ID when doing this test. Another easy test would be to contact someone on your local repeater, and ask them how the mic. sounds.

73 Gary N4AST

1016. Re: htx-202

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-17 22:54:24 UTC
From: bonos <bonos@no.spam>
Message-ID: <cgbjf0li2rvq7apcapb4af55gij24h7jef@4ax.com>
Source record: 24698

Rafael, have you tried the Spanish Translation version at that link?
It is somewhat different.

On Sat, 17 Jul 2004 14:44:58 -0700, "Rafael Lopez"
<rlopez@sanbrunocable.com> wrote:
>I just got this radio last night. It's supposed to have a built in
>mic. How can I test the mic? What button do i push?
>I already read the online manuals for it but it doesn't even tell you
>how to do the most simplest things.
>http://support.radioshack.com/productinfo/DocumentResults.asp?sku_id=19-1120&Name=Ham%20and%20Marine%20Radios&Reuse=N
>thanks

1017. Re: Sweep tube

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-17 23:10:04 UTC
From: Ken Scharf <wa2mzeNOTTHIS@bellsouth.net>
Message-ID: <JfiKc.2091$j33.1719@bignews1.bellsouth.net>
Source record: 24699

mcalhoun@ksu.edu wrote:
>>>....[snip]....
>>
>>807's are becoming pricey these days. Still some cheap 1625's
>>available though. There must have been a google of them made
>>during WWII.
>
>
> After reading an article about building an amplifier which used ten 1625's
> with paralleled RF but with series filaments directly across the 120-volt
> line, I've been saving them; hope to find the right round tuit someday....
>
> --Myron.
Reminds me of an amp using a bunch of sweep tubes in parallel running
off the mains with a voltage quadrupler to get 600 volts.

With the 1625's there is a trick the old timers used to do.
Some brands of 1625's (I do not know which) had the beam deflection
electrodes ("grid" 3) brought out of the glass bulb with it's
own lead wire. (You might be able to see this upon close inspection
of the tube if the silver getter isn't in the way.)
The cathode and "grid" 3 were connected together
at the base pin. So what you did was to un glue and un solder
the base and then bring "grid" 3 out to it's own pin (there are
two un used pins on the 1625 base). This lets you run the 1625 in
grounded grid (cathode driven). Use 10 tubes, 9 in parallel as
the final, and the 10th as a driver stage. You now have a two
stage linear that will run about 500 watts out with less than
5 watts drive. The tube heaters could be run in series across
the mains, and use a voltage quadrupler to get 600 volts for the
plate supply. Use of an isolation transformer would be a very
good idea though!

1018. Re: Sweep tube

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-18 00:52:33 UTC
From: Ralph Mowery <rmowery28146@earthlink.net>
Message-ID: <lRjKc.5883$mL5.5474@newsread1.news.pas.earthlink.net>
Source record: 24702

>
> > After reading an article about building an amplifier which used ten 1625's
> > with paralleled RF but with series filaments directly across the 120-volt
> > line, I've been saving them; hope to find the right round tuit someday....
> ==========
> Considering that with so many valves (tubes) in parallel operation the
> inter-electrode capacitance is multipled accordingly, it would be intriguing
> to know up to which frequency this set-up could be sensibly used.

I have seen a CB amp using as many as 12 of the 1625 tubes. There were 6 in parallel on each side of a push pull circuit. Not sure how clean the output was but they seemed efficiant enough to give about 300 to 500 watts out of carrier power and the modulation sounded good.

1019. Re: wanted air-403 wind gen

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-18 01:17:05 UTC
From: Highland Ham <abgm0csz.kn6whyz@ntlworld.com>
Message-ID: <lckKc.1460$%b5.1201@newsfe6-win.ntli.net>
Source record: 24700

> wanted air-403 12-volt wind generator
> new or used. will swap icom 746
> hf-vhf transceiver.
>
> serious offers please.
> would appreciate spare blades,misc parts
> with the wind gen unit aswell. as my old
> one was destroyed in a storm, i rely soley off the grid and live full
> time on the water.

==========

Considering your experience with a wind generator ,destroyed in a storm , I am using a (only) 150 Watts wind generator in combination with 2 , 64Wp solar panels for my ham station + peripherals and desk lighting.

The wind generator make Marlec has a 'furling'tail meaning that up to a wind speed of 16 m/sec the tail is perpendicular to the rotor, meaning the rotor blades face the wind fully.
Above this wind speed the hinged tail moves off its normal limit stop and since it follows the direction of the wind the rotor blades are turned away from the wind direction and at increasing wind speed up to its other limit stop when (in a roaring storm) the blades hardly rotate. Living at a wind swept location in northern Scotland , my machine over the years has graciously survived a number of up to 160 km/hour (100 miles per hour) events.

Marlec also manufacture a larger furling machine the Rutland Furlmatic 1803 ,which produces a 60 Amperes charging current at nominally 12 volts or 30 Amperes at 24 volts.
By now they might have an even larger capacity machine.

e-mail : accounts@marlec.co.uk www.marlec.co.uk

Frank GM0CSZ / KN6WH

1020. Re: Sweep tube

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-18 01:17:07 UTC
From: Highland Ham <abgm0csz.kn6whyz@ntlworld.com>
Message-ID: <nckKc.1461$%b5.44@newsfe6-win.ntli.net>
Source record: 24701

> After reading an article about building an amplifier which used ten 1625's
> with paralleled RF but with series filaments directly across the 120-volt
> line, I've been saving them; hope to find the right round tuit someday....
==========
Considering that with so many valves (tubes) in parallel operation the
inter-electrode capacitance is multipled accordingly, it would be intriguing
to know up to which frequency this set-up could be sensibly used.

I have quite a number of 'never used' 807s in the junkbox , pardon me
.....NOS box.

Frank GM0CSZ / KN6WH

1021. Re: Sweep tube

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-18 09:26:59 UTC
From: David J Windisch <davidw@copper.net>
Message-ID: <40fa42a3_1@newsfeed.slurp.net>
Source record: 24703

Low plate resistance swamps the capacity ;o)
73, Dave, N3HE

"Highland Ham" <abgm0csz.kn6whyz@ntlworld.com> wrote in message
news:nckKc.1461$%b5.44@newsfe6-win.ntli.net...
SNIP==========
> Considering that with so many valves (tubes) in parallel operation the
> inter-electrode capacitance is multipled accordingly, it would be
intriguing
> to know up to which frequency this set-up could be sensibly used.
>
> I have quite a number of 'never used' 807s in the junkbox , pardon me
> ....NOS box.
SNIP

1022. Re: AD9874 IF system/ADC

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-18 09:42:33 UTC
From: mike@corn2.freeserve.co.uk
Message-ID: <40fa4451.68367672@news.freeserve.net>
Source record: 24704

On Sat, 17 Jul 2004 23:00:19 +0800, Richard Hosking
<richardh@iinet.net.au> wrote:

>Has anyone got some of these that they are willing to part with?
>AD is unwilling to sample outside the US and refers me to the local
>supplier who knows me too well! (ie that I am a hobbyist and not a
>commercial manufacturer) He is willing to sell in quantity only.
>I can pay a suitable amount via PPal
>
At $500+ per unit, I'm not suprised that they are "unwilling", if it
were me I'd simply "refuse" :-) .What a price !!
atb Mike W

1023. Re: AD9874 IF system/ADC

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-18 10:54:58 UTC
From: "Harold E. Johnson" <W4ZCB@mchsi.com>
Message-ID: <6GsKc.121518$Oq2.54297@attbi_s52>
Source record: 24705

> At $500+ per unit, I'm not suprised that they are "unwilling", if it
> were me I'd simply "refuse" :-) .What a price !!
> atb Mike W
>
That's the eval board. It contains two 9874's and a lot more. The unit price
is under $30. plus S&H from Singapore.

W4ZCB

1024. FS: 6 Mystery Grab-Bag>1-1/2lbs of Components & Box w/pics!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-18 14:11:28 UTC
From: rlucch2098@aol.com
Message-ID: <20040718101128.04872.00000068@mb-m12.aol.com>
Source record: 24706

Hi All;
I have 6 of these mystery grab-bag sorta sets of components & each has a construction box.
It took me many hours getting these so they all have about the same "stuff"
Most components are new, with some "clip-outs but all easily useable.
There are Mica, disc, other caps, BNC connectors, 9/12 volt relays, mica insulators, fet's, Chips, electrolytics, rectifier diodes, red single led's, peizo buzzers, xtals, trimmers, etc. Too much to list.
I hope the price is right?
I am asking $20ppd, shipping could cost me $5-6 depending.
Pics:
http://www.myradioroom.com/mysteryparts1.jpg
http://www.myradioroom.com/mysteryparts2.jpg
http://www.myradioroom.com/mysteryparts3.jpg
Payment>Paypal(no CC's), checks, cash, m/o's!
tnx & 73...
Rich WA2RQY

1025. 440 Low-Noise PREAMP

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-18 17:34:55 UTC
From: ®Registered TradeMark-® <UNknown@Hum.com>
Message-ID: <3xyKc.108819$OB3.62296@bgtnsc05-news.ops.worldnet.att.net>
Source record: 24707

Anyone have a Low Noise PREAMP for 440MHZ they
would like to sell?

I don't want and Ramsey Kit Junk, something designed
like the Real thing is supposed to be.

1026. FA: AC Line filters,chassis punch 1.125" + more

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-18 17:50:33 UTC
From: Heytubeguy <heytubeguy@worldnet.att.net>
Message-ID: <JLyKc.277720$Gx4.228430@bgtnsc04-news.ops.worldnet.att.net>
Source record: 24708

See these items and others at:

http://cgi6.ebay.com/ws/eBayISAPI.dll?ViewSellersOtherItems&userid=heytubeguy&completed=0&sort=3&since=-1&include=0&page=1&rows=25

Tnx for looking, Heytubeguy, Joe

1027. Re: VHF receiver (finished work inside)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-19 00:37:19 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <MPG.1b64b7986a8e68369896dd@news-central.giganews.com>
Source record: 24709

In article <cuKdnWfJmbwyb2fdRVnytw@scarlet.biz>, dteney@hotmail.com
says...
> Whoops! wrong link for the third pic, here's the right one:
> http://www.mcarsweb.com/_divers/3.jpg
>
>
>

Looks like some very clean work! But you need to get over your fear of
microcontrollers. :)

-- jm

---

http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

1028. Re: Sweep tube

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-19 00:50:28 UTC
From: ablight@alphalink.com.au
Message-ID: <1fc7b362.0407181650.253288ab@posting.google.com>
Source record: 24710

"David J Windisch" <davidw@copper.net> wrote in message
news:<40fa42a3_1@newsfeed.slurp.net>...
> Low plate resistance swamps the capacity ;o)
> 73, Dave, N3HE
>
> "Highland Ham" <abgm0csz.kn6whyz@ntlworld.com> wrote in message
> news:nckKc.1461$%b5.44@newsfe6-win.ntli.net...
> SNIP==========
> > Considering that with so many valves (tubes) in parallel operation the
> > inter-electrode capacitance is multipled accordingly, it would be
> intriguing
> > to know up to which frequency this set-up could be sensibly used.
> >
> > I have quite a number of 'never used' 807s in the junkbox , pardon me
> > ....NOS box.
> SNIP

OK, we are all agreed - EVEYONE has heaps of 807's in the junkbox for
the "one day" project.......
73 de VK3BFA Andrew

1029. Re: Sweep tube

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-19 09:53:56 UTC
From: David J Windisch <davidw@copper.net>
Message-ID: <40fb9a78_4@newsfeed.slurp.net>
Source record: 24711

This is hilarious. The OP asked a question. And asks it again:

What's the nomenclature for that sweep tube, produced just for Admiral TVs
years ago, that's heavier-duty than any of the other tubes?

I thought it was 6MJ6 -- but, no. It has an *octal* base.

Fella used to sell 'em in some of the mid-west hamfests, but I haven't seen
him for a while. Think his name is Don, and that he was also in to Racal
receivers.

73, Dave, N3HE

"Andrew VK3BFA" <ablight@alphalink.com.au> wrote in message
news:1fc7b362.0407181650.253288ab@posting.google.com...
SNIP
> OK, we are all agreed - EVEYONE has heaps of 807's in the junkbox for
> the "one day" project.......
> 73 de VK3BFA Andrew

1030. Re: Sweep tube

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-19 22:31:44 UTC
From: snarflemike@yahoo.com
Message-ID: <20619edc.0407191431.5c980046@posting.google.com>
Source record: 24712

"David J Windisch" <davidw@copper.net> wrote in message
news:<40fb9a78_4@newsfeed.slurp.net>...
> This is hilarious. The OP asked a question. And asks it again:
>
> What's the nomenclature for that sweep tube, produced just for Admiral TVs
> years ago, that's heavier-duty than any of the other tubes?
>
> I thought it was 6MJ6 -- but, no. It has an *octal* base.

So what kind of base does your mystery tube have?

1031. Re: Sweep tube

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-19 22:38:46 UTC
From: snarflemike@yahoo.com
Message-ID: <20619edc.0407191438.32bb03c@posting.google.com>
Source record: 24713

"David J Windisch" <davidw@copper.net> wrote in message
news:<40fb9a78_4@newsfeed.slurp.net>...
>> This is hilarious. The OP asked a question. And asks it again:
>>
>> What's the nomenclature for that sweep tube, produced just for
Admiral TVs
>> years ago, that's heavier-duty than any of the other tubes?
>>
>> I thought it was 6MJ6 -- but, no. It has an *octal* base.
>
> So what kind of base does your mystery tube have?

Ah, nevermind. I see now that the "it" in your question is not the
6MJ6, but your mystery tube...

1032. Re: Sweep tube

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-19 23:21:44 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <mklof0pk6fpfvjuslamnclrt1b9qmiafcv@4ax.com>
Source record: 24714

On 19 Jul 2004 15:38:46 -0700, snarflemike@yahoo.com (Mike Silva)
wrote:

>"David J Windisch" <davidw@copper.net> wrote in message
news:<40fb9a78_4@newsfeed.slurp.net>...
>>> This is hilarious. The OP asked a question. And asks it again:
>>>
>>> What's the nomenclature for that sweep tube, produced just for
>Admiral TVs
>>> years ago, that's heavier-duty than any of the other tubes?
>>>
>>> I thought it was 6MJ6 -- but, no. It has an *octal* base.
>>
>> So what kind of base does your mystery tube have?
>
>Ah, nevermind. I see now that the "it" in your question is not the
>6MJ6, but your mystery tube...

perhaps it is just a silly request when he has nothing else to talk
about, it might be 6JS6, 6KD6, or perhaps it was 6JM6.... and
6JM6 GE Vacuum Radio Tubes is offered on internet and the
Current Price: $0.99

so, when 100 persons have commented, it might be a better idea to read
the type number on the glass again and tell us which type the question
was about???

http://home.online.no/~la8ak/e81.htm

J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

1033. Elements for Cushcraft 2m Yagi

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-20 01:39:25 UTC
From: Jason Dugas <kb5urq@hotmail.com>
Message-ID: <10fotv37allhm80@corp.supernews.com>
Source record: 24715

I'm looking for some good suggestions on how to replace some broken elements on my Cushcraft A148-10 2m Yagi. They sell replacement parts, but I'm told that its cheaper to just use some welding rods as they are just about the same size.

I noticed that on the Cushcraft antenna the elements appear to be brazed(?) at the center into an encapsulation. At the center of the encapsulatoin is a hole drilled for the screw to go down through the element and into the boom.

How do would I recreate this if I were to use homebrew elements.

Jason
KB5URQ

1034. Re: VHF receiver (finished work inside)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-20 03:52:24 UTC
From: ehsjr@bellatlantic.net
Message-ID: <YF0Lc.24572$F8.14398@nwrdny02.gnilink.net>
Source record: 24716

Damien Teney wrote:

>Hello everybody,
>I've bothered you several times in the last few weeks, cause I had problems
>with the building of my VHF aircraft band receiver (108-136 MHz)... now it's
>over ! Everything is working and I put all the stuff in a box ;-) I'm really
>happy, as this is my first serious HF project. So I give you a few pics:
>Front: http://www.mcarsweb.com/_divers/2.jpg
>Back: http://www.mcarsweb.com/_divers/1.jpg
>The circuit during the tests: http://www.mcarsweb.com/_divers/1.jpg
>
>For the information, all the switches at the back are to control the VCO
>(MC145152 with parallel input, it seemed easier at first, but I doubt I
>would use it again ;-) The receiver can be control either by the PLL either
>by the manual potmeter. It also has a squelch.
>
>So, thanks (again) to those who helped me, and bye !
>
>Damien
>
>
>
>
Beautiful!

1035. Converting Vectronics HFT 1500 to L network?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-20 04:12:24 UTC
From: denton <denton@oregontrail.net>
Message-ID: <10fp6st9old4q04@corp.supernews.com>
Source record: 24717

Has anyone done this before? I am thinking of converting my HFT to an L network. I started by isolating the roller inductor from ground and re-wiring the caps in parallel across the inductor output to ground, but can't seem to have much luck getting the revised network to tune very well. Any ideas??

1036. Re: Sweep tube

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-20 09:49:30 UTC
From: David J Windisch <davidw@copper.net>
Message-ID: <40fceae5_2@newsfeed.slurp.net>
Source record: 24718

The point is, that I don't know what the nomenclature is, and asked for help with it in the OP.

"Someone" mentioned this tube in a post "somewhere" several years ago. I've searched archives for faulty-memory-recollections of the nomenclature, to no avail.

For latecomer Noeding: I'd like to get enough of them to experiment with no-tune techniques, which might be practical with plate voltage around 600 and plate current of 4 or 5 amps. The "hilarious" comment referred to plain old thread-wander ;o)

73, Dave, N3HE

"J M Noeding" <la8ak@online.no> wrote in message news:mklof0pk6fpfvjuslamnclrt1b9qmiafcv@4ax.com...
> On 19 Jul 2004 15:38:46 -0700, snarflemike@yahoo.com (Mike Silva)
> wrote:
>
> >"David J Windisch" <davidw@copper.net> wrote in message news:<40fb9a78_4@newsfeed.slurp.net>...
> >>> This is hilarious. The OP asked a question. And asks it again:
> >>>
> >>> What's the nomenclature for that sweep tube, produced just for
> >Admiral TVs
> >>> years ago, that's heavier-duty than any of the other tubes?
> >>>
> >>> I thought it was 6MJ6 -- but, no. It has an *octal* base.
> >>
> >> So what kind of base does your mystery tube have?
> >
> >Ah, nevermind. I see now that the "it" in your question is not the
> >6MJ6, but your mystery tube...
>
> perhaps it is just a silly request when he has nothing else to talk
> about, it might be 6JS6, 6KD6, or perhaps it was 6JM6.... and
> 6JM6 GE Vacuum Radio Tubes is offered on internet and the
> Current Price: $0.99
>
> so, when 100 persons have commented, it might be a better idea to read
> the type number on the glass again and tell us which type the question
> was about???
>
>
> http://home.online.no/~la8ak/e81.htm

> ---
> J. M. Noeding, LA8AK, N-4623 Kristiansand
> http://home.online.no/~la8ak/c.htm

1037. ForSale Philips Prm80 and power Supply

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-20 10:57:13 UTC
From: djmdave@iprimus.com.au
Message-ID: <40fffa59.3940765@NEWS.iprimus.COM.AU>
Source record: 24719

Philips prm8020 e band (low vhf) and prx15 power supply/spk unit. in
excelent condition. $200.00 o.n.o. Phone DJM Electronics
(08)83496308 or call in at Shop 1 - 543 Churchill Road, Kilburn
5084 SA.
Repairs and sales of CB And Communication Equipment.

1038. Re: Converting Vectronics HFT 1500 to L network?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-20 11:52:39 UTC
From: jgboyles@aol.com
Message-ID: <20040720075239.29796.00001642@mb-m18.aol.com>
Source record: 24721

> am thinking of converting my HFT to an L network

>can't seem to have much luck getting the revised network to tune very well.
>Any ideas??

There are 4 different combinations of L and C that can be used in a L network.
You might have yours in the wrong configuration for the impedance you are
attempting to match.
73 Gary N4AST

1039. Re: Elements for Cushcraft 2m Yagi

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-20 12:06:48 UTC
From: Highland Ham <abgm0csz.kn6whyz@ntlworld.com>
Message-ID: <sV7Lc.114$lr3.69@newsfe5-win.ntli.net>
Source record: 24720

> I'm looking for some good suggestions on how to replace some broken
elements
> on my Cushcraft A148-10 2m Yagi. They sell replacement parts, but I'm
told
> that its cheaper to just use some welding rods as they are just about the
> same size.
>
> I noticed that on the Cushcraft antenna the elements appear to be
brazed(?)
> at the center into an encapsulation. At the center of the encapsulatoin
is
> a hole drilled for the screw to go down through the element and into the
> boom.
>
> How do would I recreate this if I were to use homebrew elements.
==========
Not owning/knowing the above type of antenna ,I might not be eligible to
comment.
However from your description re welding rods and its centre being brazed
into an encapsulation , it appears to me that a welding rod is too thin to
drill a hole through ,but by sliding over a piece of (stainless ?) steel
tubing ,with inner diameter slightly larger than the diameter of the welding
rod , and brazing this in the middle of the welding rod material on both
sides (encapsulation) you get an overall larger diameter through which a
hole can be drilled.

Frank GM0CSZ / KN6WH

1040. Re: Sweep tube

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-20 14:48:50 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <47bqf0dtdlr4g0fshv6ag9odj6dlgivgr1@4ax.com>
Source record: 24722

On Tue, 20 Jul 2004 somebody from "over there" wrote:

>"Someone" mentioned this tube in a post "somewhere" several years ago. I've
>searched archives for faulty-memory-recollections of the nomenclature, to no
>avail.

It might have been a hoax, or perhaps problem with memory - not the
eyes......

>
>For latecomer Noeding: I'd like to get enough of them to experiment with
>no-tune techniques, which might be practical with plate voltage around 600
>and plate current of 4 or 5 amps. The "hilarious" comment referred to plain
>old thread-wander ;o)
>

Well, I'd still endorse the idea of using 807, it is not so many other
6.3V tubes with the same socket, so you are more certain which type
goes there, and not at least - it was once mentioned water-cooling
(QST 1951??) - probably a good idea for those of you who like to tune
for very long periods to get the last microwatt into the antenna

73, jm

J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

1041. Re: Sweep tube

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-20 15:56:15 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10fqg4kjd9lro3d@corp.supernews.com>
Source record: 24723

David J Windisch wrote:

> The point is, that I don't know what the nomenclature is, and asked for help
> with it in the OP.
>
> "Someone" mentioned this tube in a post "somewhere" several years ago. I've
> searched archives for faulty-memory-recollections of the nomenclature, to no
> avail.
>
> For latecomer Noeding: I'd like to get enough of them to experiment with
> no-tune techniques, which might be practical with plate voltage around 600
> and plate current of 4 or 5 amps. The "hilarious" comment referred to plain
> old thread-wander ;o)
>
> 73, Dave, N3HE
>
> "J M Noeding" <la8ak@online.no> wrote in message
> news:mklof0pk6fpfvjuslamnclrt1b9qmiafcv@4ax.com...
>
>>On 19 Jul 2004 15:38:46 -0700, snarflemike@yahoo.com (Mike Silva)
>>wrote:
>>
>>
>>>"David J Windisch" <davidw@copper.net> wrote in message
>
> news:<40fb9a78_4@newsfeed.slurp.net>...
>
>>>>>This is hilarious. The OP asked a question. And asks it again:
>>>>>
>>>>>What's the nomenclature for that sweep tube, produced just for
>>>
>>>Admiral TVs
>>>
>>>>>years ago, that's heavier-duty than any of the other tubes?
>>>>>
>>>>>I thought it was 6MJ6 -- but, no. It has an *octal* base.
>>>>
>>>>So what kind of base does your mystery tube have?
>>>
>>>Ah, nevermind. I see now that the "it" in your question is not the
>>>6MJ6, but your mystery tube...
>>
>>perhaps it is just a silly request when he has nothing else to talk
>>about, it might be 6JS6, 6KD6, or perhaps it was 6JM6.... and

>>6JM6 GE Vacuum Radio Tubes is offered on internet and the
>>Current Price: $0.99
>>
>>so, when 100 persons have commented, it might be a better idea to read
>>the type number on the glass again and tell us which type the question
>>was about???
>>
>>
>>http://home.online.no/~la8ak/e81.htm
>>---
>>J. M. Noeding, LA8AK, N-4623 Kristiansand
>>http://home.online.no/~la8ak/c.htm
>
>
>
It may be best to pick the least expensive "big" sweep tube for which
you have specs, and parallel enough of them to get the impedance where
you want it to be.

You should also be able to run the voltage down a bit at the tube's
rated current. This will reduce your power output but it'll reduce your
impedance at the same time.

If you use a 3:1 step-down on your output you'll load the plate with 450
ohms. This will require a 1.3A peak current with a 600V plate supply,
and should be good for 300W or more PEP output -- may be easier to start
there than at 5A!

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

1042. Re: Sweep tube

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-20 18:41:08 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <ecpqf0h8jqki1lme6nslqhg40rbrni46og@4ax.com>
Source record: 24724

On Tue, 20 Jul 2004 08:56:15 -0700, Tim Wescott
<tim@wescottnospamdesign.com> wrote:

>It may be best to pick the least expensive "big" sweep tube for which
>you have specs, and parallel enough of them to get the impedance where
>you want it to be.
>
>You should also be able to run the voltage down a bit at the tube's
>rated current. This will reduce your power output but it'll reduce your
>impedance at the same time.
>
>If you use a 3:1 step-down on your output you'll load the plate with 450
>ohms. This will require a 1.3A peak current with a 600V plate supply,
>and should be good for 300W or more PEP output -- may be easier to start
>there than at 5A!

of course, but still the impedance from each tube is high, and it does
not see 50 ohm or whatever load, and still you may need an antenna
tuner.

But I was pulling the leg, since it is not a problem for any moderate
intelligent ham to tune a transmitter. Since I am electronic engineer
and have been working with transmitters it amuses me to see that
colleagues don't understand about PLATE and LOAD, and have really
difficulties to tune a transmitter, other radio amateurs have
commented about the same. It is odd that you need to be an amateur to
understand how to tune a transmitter, and I have never seen it as a
problem, even when I started with a Starflite TX 38 years ago

73, jm

J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

1043. Re: Sweep tube

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-20 19:08:34 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10fqrd769qe4t16@corp.supernews.com>
Source record: 24725

J M Noeding wrote:
> On Tue, 20 Jul 2004 08:56:15 -0700, Tim Wescott
> <tim@wescottnospamdesign.com> wrote:
>
>
>
>>It may be best to pick the least expensive "big" sweep tube for which
>>you have specs, and parallel enough of them to get the impedance where
>>you want it to be.
>>
>>You should also be able to run the voltage down a bit at the tube's
>>rated current. This will reduce your power output but it'll reduce your
>>impedance at the same time.
>>
>>If you use a 3:1 step-down on your output you'll load the plate with 450
>>ohms. This will require a 1.3A peak current with a 600V plate supply,
>>and should be good for 300W or more PEP output -- may be easier to start
>>there than at 5A!
>
>
> of course, but still the impedance from each tube is high, and it does
> not see 50 ohm or whatever load, and still you may need an antenna
> tuner.
>
> But I was pulling the leg, since it is not a problem for any moderate
> intelligent ham to tune a transmitter. Since I am electronic engineer
> and have been working with transmitters it amuses me to see that
> colleagues don't understand about PLATE and LOAD, and have really
> difficulties to tune a transmitter, other radio amateurs have
> commented about the same. It is odd that you need to be an amateur to
> understand how to tune a transmitter, and I have never seen it as a
> problem, even when I started with a Starflite TX 38 years ago
>
> 73, jm
> ---
> J. M. Noeding, LA8AK, N-4623 Kristiansand
> http://home.online.no/~la8ak/c.htm

Perhaps if the knobs were relabeled "TX" and "Antenna", and the plate
current meter was relabeled "reflected power"?

I see nothing wrong in principal with wanting to build a no-tune tube
transmitter, although it may be more work than building a
microprocessor-controlled transmitter tuner, and you may run into
insurmountable output-capacitance problems.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

1044. Re: Sweep tube

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-20 19:55:11 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <hktqf0pifqcvfdipqtf1hehrjsdip9icvs@4ax.com>
Source record: 24726

On Tue, 20 Jul 2004 12:08:34 -0700, Tim Wescott
<tim@wescottnospamdesign.com> wrote:

>Perhaps if the knobs were relabeled "TX" and "Antenna", and the plate
>current meter was relabeled "reflected power"?
>
Can't really remember. Last time I had to assist it was Rohde&Schwartz
10kW 88.8MHz FM broadcast transmitter, and the colleague could hardly
achieve 1kW output, hi. Another ham worked at another medium wave
broadcast station in the summer 1960, and mentioned on an occasion
that "they had no idea how to tune a transmitter", they had some
different transmitters, incl. an old Marconi 10kW TX from 1933.

>I see nothing wrong in principal with wanting to build a no-tune tube
>transmitter, although it may be more work than building a
>microprocessor-controlled transmitter tuner, and you may run into
>insurmountable output-capacitance problems.

Well, I see 100pF output capacitance to cause some troubles on 450 ohm

Another problem is that all plate connections to a common point must
be measured to the same length. I am told this is really a problem,
even for a longwave transmitter, the reference transmitter operated on
360kHz as a console radio station, see my page
http://home.online.no/~la8ak/k56.htm

73, Jan-Martin

J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

1045. Re: How to calculate VCO gain ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-20 23:06:21 UTC
From: TOM <noname@noprovider.nodomain>
Message-ID: <NzhLc.31959$lz2.5889@nwrddc03.gnilink.net>
Source record: 24727

Usually, designing it to work well at both the min and max gain is the best.
Are you sure this is the only issue? PLL's have lots of sneaky closed-loop
response poles, and sometimes those are more important than the gain
variation.

-- Tom

"Damien Teney" <dteney@hotmail.com> wrote in message
news:4cb5c804.0407150907.4f3aa6fc@posting.google.com...
> Hello everybody,
> I've build a PLL for a VCO that tunes from &#65533;60 → &#65533;90 MHz. It
> works quite well, but however the output of the PLL filter is not
> really clean. So I'm re-calculating the values for the output filter.
>
> In the calculations I need the the VCO gain; my VCO isn't linear, the
> frequency varies exponentially. So I don't know what gain I should
> take: the average ? the gain around the center frequency of the VCO ?
> something else ?
>
> Thanks for your answers.

1046. Want to make a passive SWL preselector

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-20 23:16:42 UTC
From: alfa011@prtc.net
Message-ID: <4f9f2736.0407201516.41ed6302@posting.google.com>
Source record: 24728

Hi!

I am interested in making my own SWL preselector..

Anyone knows where I can find information in the web or direct me to
where I can find the information needed to make one?

Thanks..
Alvin Mirabal
WP4IDK

1047. Re: Want to make a passive SWL preselector

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-20 23:27:55 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <8jarf05a2pvkviegm8g00fe6k8du3cotko@4ax.com>
Source record: 24729

On 20 Jul 2004 16:16:42 -0700, alfa011@prtc.net (Almir) wrote:

>Hi!
>
>I am interested in making my own SWL preselector..
>
>Anyone knows where I can find information in the web or direct me to
>where I can find the information needed to make one?
>
>Thanks..
>Alvin Mirabal
>WP4IDK

for medium wave band?

J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

1048. Help PRM80

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-21 00:25:45 UTC
From: kngphil@aol.com
Message-ID: <20040720202545.11031.00001948@mb-m02.aol.com>
Source record: 24730

Hi All.
I have a prm8030 by Simoco. It has a 6 digit head and a keypad mic.
the freq is 70.00mhz to 70.5mhz in 12.5khz steps. I would like to reprogram it.
I have got lots of software from the net & made the programing lead.
But all i can get the software to do is read the radio, then it gives an eror
msg.
and shows this number.(3502 362 10290).
Can Any One Help......

All the best Phil. G1RGG

email is (my call) at yahoo dot com

1049. Re: Want to make a passive SWL preselector

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-21 01:37:05 UTC
From: j999w@aol.com
Message-ID: <20040720213705.22153.00000193@mb-m07.aol.com>
Source record: 24731

Google to the rescue!

"Simple antenna tuner":

http://www.radiohc.org/Distributions/Dxers/antenna-tuner2.html

http://www.antennex.com/hws/ws0500/pinet.htm

http://www.hard-core-dx.com/nordicdx/antenna/lab/tuner.html

http://www.qsl.net/wb3gck/tuner.htm

Go nuts ... have fun.

jw
k9rzz

1050. FS: 6 Mystery Grab-Bag>1-1/2lbs of Components & Box w/pics!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-21 01:41:09 UTC
From: rlucch2098@aol.com
Message-ID: <20040720214109.21353.00000143@mb-m18.aol.com>
Source record: 24732

Hi All;
I have 6 of these mystery grab-bag sorta sets of components & each has a construction box.
It took me many hours getting these so they all have about the same "stuff"
Most components are new, with some "clip-outs but all easily useable.
There are Mica, disc, other caps, BNC connectors, 9/12 volt relays, mica insulators, fet's, Chips, electrolytics, rectifier diodes, red single led's, peizo buzzers, xtals, trimmers, etc. Too much to list.
I hope the price is right?
I am asking $20ppd, shipping could cost me $5-6 depending.
Pics:
http://www.myradioroom.com/mysteryparts1.jpg
http://www.myradioroom.com/mysteryparts2.jpg
http://www.myradioroom.com/mysteryparts3.jpg
Payment>Paypal(no CC's), checks, cash, m/o's!
tnx & 73...
Rich WA2RQY

1051. FS: Everybody needs Ceramic Trimmers>25 FS w/pic $35ppd!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-21 01:42:43 UTC
From: rlucch2098@aol.com
Message-ID: <20040720214243.21353.00000147@mb-m18.aol.com>
Source record: 24733

Hi All;
I rounded up these various & sundry ceramic trimmers, actually 25 pieces.
They all look to be in good shape but please don't ask the values, it would
takje me too long for the $35.00ppd asking price:-)
Pic:
http://www.myradioroom.com/25trimmers.jpg
tnx & 73..
Rich WA2RQY

1052. Re: Sweep tube

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-21 02:40:21 UTC
From: snarflemike@yahoo.com
Message-ID: <20619edc.0407201840.3ebc03d3@posting.google.com>
Source record: 24734

"David J Windisch" <davidw@copper.net> wrote in message
news:<40fceae5_2@newsfeed.slurp.net>...
> The point is, that I don't know what the nomenclature is, and asked for help
> with it in the OP.

A quick google on <admiral "sweep tube"> turned it up: 6LW6. The post
was by Tom, W8JI in 2000.

73,
Mike, KK6GM

1053. Re: VHF receiver (finished work inside)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-21 09:54:36 UTC
From: sre@lem.com
Message-ID: <264c924d.0407210154.4cc2205@posting.google.com>
Source record: 24735

nice work.
It could be easily be improved by adding a microcontroller and a LCD...
Regards
Stephane, F1TJJ

ehsjr@bellatlantic.net wrote in message
news:<YF0Lc.24572$F8.14398@nwrdny02.gnilink.net>...
> Damien Teney wrote:
>
> >Hello everybody,
> >I've bothered you several times in the last few weeks, cause I had problems
> >with the building of my VHF aircraft band receiver (108-136 MHz)... now it's
> >over ! Everything is working and I put all the stuff in a box ;-) I'm really
> >happy, as this is my first serious HF project. So I give you a few pics:
> >Front: http://www.mcarsweb.com/_divers/2.jpg
> >Back: http://www.mcarsweb.com/_divers/1.jpg
> >The circuit during the tests: http://www.mcarsweb.com/_divers/1.jpg
> >
> >For the information, all the switches at the back are to control the VCO
> >(MC145152 with parallel input, it seemed easier at first, but I doubt I
> >would use it again ;-) The receiver can be control either by the PLL either
> >by the manual potmeter. It also has a squelch.
> >
> >So, thanks (again) to those who helped me, and bye !
> >
> >Damien
> >
> >
> >
> >
> Beautiful!

1054. Re: Sweep tube

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-21 13:16:39 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <duqsf09apqvd146jtk4j6mhns0lejd521v@4ax.com>
Source record: 24736

impedance for 100pf on 14MHz is -j114, perhaps not so good in a 450ohm circuit

see http://www.noding.com/la8ak/12345/n12.htm for broadband techniques with ferrite transformers, and you could always read W2FMI's book "Transmission Line transformers", but I wouldn't use transmission line transformers myself

73
jm

J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

1055. Re: How to calculate VCO gain ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-21 16:21:36 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <cdm5av$7qk$1@newshost.mot.com>
Source record: 24737

"TOM" <noname@noprovider.nodomain> wrote in message
news:NzhLc.31959$lz2.5889@nwrddc03.gnilink.net...
> Usually, designing it to work well at both the min and max gain is the
best.
> Are you sure this is the only issue? PLL's have lots of sneaky closed-loop
> response poles, and sometimes those are more important than the gain
> variation.
> -- Tom
>
> "Damien Teney" <dteney@hotmail.com> wrote in message
> news:4cb5c804.0407150907.4f3aa6fc@posting.google.com...
> > Hello everybody,
> > I've build a PLL for a VCO that tunes from &#65533;60 → &#65533;90 MHz. It
> > works quite well, but however the output of the PLL filter is not
> > really clean. So I'm re-calculating the values for the output filter.
> >
> > In the calculations I need the the VCO gain; my VCO isn't linear, the
> > frequency varies exponentially. So I don't know what gain I should
> > take: the average ? the gain around the center frequency of the VCO ?
> > something else ?
> > Thanks for your answers.

There are two considerations. In the low gain region the overall loop
gain is lower and the response will be slower. In the high gain region you
will be up against two things.

1) Any spurious coming down the control line will be highest on the VCO
output.
2) This is where you do you calculations for lock time as it will be the
most critical. THat is, it will be most prone to go underdamped and ring,
pushing the lock time out as well and creating opportunity for other
resonant-like effects.

It is better to design the VCO for a more constant gain characteristic.
There are a lot of techniques and trade-offs here though. There is also the
variation in the divider ratio, which also translates to loop gain change,
and has similar effect on loop response.

--
Steve N, K,9;d, c. i My email has no u's.
>

1056. The bi-polar transistor at RF

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-21 17:26:23 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <8j8tf0dgs2qji2l2hglvuulndhqph1t0v2@4ax.com>
Source record: 24738
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

Hi all,

Firstly, does anyone bother designing with Y-parameters *at all* these days?

Then... (talking of the common-emitter configuration in this case)
The only variable according to the Ebers-Moll transistor model apart from the device-specific "Is" which has any effect on Ic is the potental difference applied across the B/E junction. The signal voltage thus applied is loaded by the resistance of this diode. At DC., the loading is at a maximum and the entire PD appears across it. Right so far? As the applied signal voltage increases in frequency, the feedback capacitance (B-C) and the B-E junction capacitance form an AC bypass path across the B/E resistance above-mentioned. The two capacitances acting in concert shunt more and more of the applied signal voltage to ground, bypassing the emitter diode resistance, lowering the device input impedance and resulting in less and less applied Vbe across this diode and consequently less and less Ic output swing?

What I'm getting at is that Ebers-Moll is still good at RF, *provided* one allows for the bypassing of the emitter diode's resistance by the combination of Cb and Ce. Correct?
And CJC and CJE are the relevant Spice model parameters?

Thanks,

p.
--

"What is now proved was once only imagin'd." - William Blake, 1793.

1057. mfj 422 keyer mod

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-21 18:49:05 UTC
From: nightowls627@aol.comnojunk
Message-ID: <20040721144905.15298.00000129@mb-m04.aol.com>
Source record: 24739

I have an 422 keyer/paddle combo and had to cut the cable that goes from the keyer to the rig. My TT has an internal keyer, but my rockmite and ohr 100a 30m does not. I had to cut it because I wanted a "remote" keyer/oscillator. I rewired the innards to a 1/8" jack and the paddle itself with a 1/8" plug so that I could leave the bulky keyer somewhere else during field day as i did not need it. I want to be able to connect the keyer to my non-internal keyer rigs. I am confused though about the cable. This is going to sound ridiculous, but, do I need a 1/8 stereo plug or a mono plug? How does the cable work if only an RCA plug is used at the keyer(shielded but that is still only two wires)? How do I assemble an RCA plug to a 1/8" plug that I am assuming needs to be hooked up for stereo? I am so confused.

Any suggestions are appreciated

73
Greg
ki4bbl@arrl.net

1058. Measuring IP3

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-21 19:48:28 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <53itf0t4alhu1f3rbarp6pcdmgkm7bjtku@4ax.com>
Source record: 24740
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

Hi
It seems to be some problem to build equipment to measure over
+35...40dBm IP3, and xtal filters seem to cause intermodulation
problem with this level

What I am after is constructions to build which works to measure
higher IP3. Would also be interested to see IP3 measurements for xtal
filters

73, Jan-Martin

J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

1059. Re: Measuring IP3

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-21 19:52:22 UTC
From: Jim Thompson <thegreatone@example.com>
Message-ID: <69itf0hh1o97etv2joblmoomfo4ul69p36@4ax.com>
Source record: 24741
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Wed, 21 Jul 2004 21:48:28 +0200, J M Noeding <la8ak@online.no>
wrote:

>Hi
>It seems to be some problem to build equipment to measure over
>+35...40dBm IP3, and xtal filters seem to cause intermodulation
>problem with this level
>
>What I am after is constructions to build which works to measure
>higher IP3. Would also be interested to see IP3 measurements for xtal
>filters
>
>73, Jan-Martin
>---
>J. M. Noeding, LA8AK, N-4623 Kristiansand
>http://home.online.no/~la8ak/c.htm

Padded-down spectrum analyser ??

36 to 63V P-P into 50 ohms ain't easy ;-)

...Jim Thompson
--
James E.Thompson, P.E.	mens
Analog Innovations, Inc.	et
Analog/Mixed-Signal ASIC's and Discrete Systems	manus
Phoenix, Arizona Voice:(480)460-2350	
E-mail Address at Website Fax:(480)460-2142	Brass Rat
http://www.analog-innovations.com	1962

I love to cook with wine. Sometimes I even put it in the food.

1060. Re: Measuring IP3

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-21 19:59:41 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <4nitf05op9taust90963qm2nen6m1qh7o0@4ax.com>
Source record: 24742
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Wed, 21 Jul 2004 12:52:22 -0700, Jim Thompson
<thegreatone@example.com> wrote:

>On Wed, 21 Jul 2004 21:48:28 +0200, J M Noeding <la8ak@online.no>
>wrote:
>
>>Hi
>>It seems to be some problem to build equipment to measure over
>>+35...40dBm IP3, and xtal filters seem to cause intermodulation
>>problem with this level
>>
>>What I am after is constructions to build which works to measure
>>higher IP3. Would also be interested to see IP3 measurements for xtal
>>filters
>>
>>73, Jan-Martin
>>---
>>J. M. Noeding, LA8AK, N-4623 Kristiansand
>>http://home.online.no/~la8ak/c.htm
>
>Padded-down spectrum analyser ??
>
>36 to 63V P-P into 50 ohms ain't easy ;-)
>
> ...Jim Thompson
it is sort of calculation to find the IP3, you could measure 1dB
compression or just the IM

jm

J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

1061. Re: Measuring IP3

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-21 20:16:55 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10ftjpabe30op8f@corp.supernews.com>
Source record: 24743
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

Jim Thompson wrote:

> On Wed, 21 Jul 2004 21:48:28 +0200, J M Noeding <la8ak@online.no>
> wrote:
>
>
>>Hi
>>It seems to be some problem to build equipment to measure over
>>+35...40dBm IP3, and xtal filters seem to cause intermodulation
>>problem with this level
>>
>>What I am after is constructions to build which works to measure
>>higher IP3. Would also be interested to see IP3 measurements for xtal
>>filters
>>
>>73, Jan-Martin
>>---
>>J. M. Noeding, LA8AK, N-4623 Kristiansand
>>http://home.online.no/~la8ak/c.htm
>
>
> Padded-down spectrum analyser ??
>
> 36 to 63V P-P into 50 ohms ain't easy ;-)
>
> ...Jim Thompson

IM3 is generally projected up from measurements made at much lower power levels -- on most RF circuits running at useful power levels the 3rd-order IM products vary as the cube of power, so you measure the power-in/IM3-out levels at lower input levels and plot it all on a graph.

Not that I can answer the OP's question, and padding down the signal is probably going to be a featured part of any setup.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

1062. FA: Gates 1Adc choke + more parts.....

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-21 20:58:35 UTC
From: Heytubeguy <heytubeguy@worldnet.att.net>
Message-ID: <%NALc.297824$Gx4.293246@bgtnsc04-news.ops.worldnet.att.net>
Source record: 24744

See at:

http://cgi6.ebay.com/ws/eBayISAPI.dll?ViewSellersOtherItems&userid=heytubeguy&completed=0&sort=3&since=-1&include=0&page=1&rows=25

Tnx for looking and check back often, Heytubeguy

1063. Re: Measuring IP3

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-21 21:08:50 UTC
From: Jim Thompson <thegreatone@example.com>
Message-ID: <tomtf09hnujtt1sj41ap0jek0v05da2tat@4ax.com>
Source record: 24745
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Wed, 21 Jul 2004 21:59:41 +0200, J M Noeding <la8ak@online.no>
wrote:

>On Wed, 21 Jul 2004 12:52:22 -0700, Jim Thompson
><thegreatone@example.com> wrote:
>
>>On Wed, 21 Jul 2004 21:48:28 +0200, J M Noeding <la8ak@online.no>
>>wrote:
>>
>>>Hi
>>>It seems to be some problem to build equipment to measure over
>>>+35...40dBm IP3, and xtal filters seem to cause intermodulation
>>>problem with this level
>>>
>>>What I am after is constructions to build which works to measure
>>>higher IP3. Would also be interested to see IP3 measurements for xtal
>>>filters
>>>
>>>73, Jan-Martin
>>>---
>>>J. M. Noeding, LA8AK, N-4623 Kristiansand
>>>http://home.online.no/~la8ak/c.htm
>>
>>Padded-down spectrum analyser ??
>>
>>36 to 63V P-P into 50 ohms ain't easy ;-)
>>
>> ...Jim Thompson
>it is sort of calculation to find the IP3, you could measure 1dB
>compression or just the IM
>
>jm
>
>---
>J. M. Noeding, LA8AK, N-4623 Kristiansand
>http://home.online.no/~la8ak/c.htm

True. Most systems will extrapolate out to IP3 pretty well, so take a
series of data points at lower power levels.

...Jim Thompson
--
| James E.Thompson, P.E. | mens |
| Analog Innovations, Inc. | et |

Analog/Mixed-Signal ASIC's and Discrete Systems	manus
Phoenix, Arizona Voice:(480)460-2350	
E-mail Address at Website Fax:(480)460-2142	Brass Rat
http://www.analog-innovations.com	1962

I love to cook with wine. Sometimes I even put it in the food.

1064. Re: magic band and baby monitors

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-21 21:21:58 UTC
From: gmz79@aol.comnospam
Message-ID: <20040721172158.04802.00000188@mb-m12.aol.com>
Source record: 24746

Sounds like a new SWL WAS category.
Ah yes, the Baby Monitor County Hunters
Actually worked E'sporadic on an old cordless phone years ago.......

73
Greg Z
to thine own sound be true
WG8Z

1065. Re: Measuring IP3

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-21 22:05:02 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <5vptf05h6ukqu9nimfh0lh4n6jomai94vn@4ax.com>
Source record: 24647
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Wed, 21 Jul 2004 14:08:50 -0700, Jim Thompson
<thegreatone@example.com> wrote:

>>On Wed, 21 Jul 2004 12:52:22 -0700, Jim Thompson wrote:

>>>36 to 63V P-P into 50 ohms ain't easy ;-)

>True. Most systems will extrapolate out to IP3 pretty well, so take a
>series of data points at lower power levels.
>
> ...Jim Thompson
Another poster has the same opinion, too

then, back to original question:

It seems to be some problem to build equipment to measure over
+35...40dBm IP3 (at receiver input), do you know how it could be made,
or is it some references which might work?

jm

J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

1066. Re: Want to make a passive SWL preselector

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-21 22:47:39 UTC
From: alfa011@prtc.net
Message-ID: <4f9f2736.0407211447.5334b8a1@posting.google.com>
Source record: 24648

John..

Thanks for the websites.. I will keep them as reference..

Unfortunately an antenna tuner and a preselector are not exactly
the same thing as most people think..

But thanks for the information provided.. as a matter of
fact I am going to make a mini-tuner from one of your sources..

Thanks a bundle!

:-)

73's

Alvin WP4IDK

j999w@aol.com (J999w) wrote in message
news:<20040720213705.22153.00000193@mb-m07.aol.com>...
> Google to the rescue!
>
> "Simple antenna tuner":
>
> http://www.radiohc.org/Distributions/Dxers/antenna-tuner2.html
>
> http://www.antennex.com/hws/ws0500/pinet.htm
>
> http://www.hard-core-dx.com/nordicdx/antenna/lab/tuner.html
>
> http://www.qsl.net/wb3gck/tuner.htm
>
> Go nuts ... have fun.
>
> jw
> k9rzz

1067. Re: Want to make a passive SWL preselector

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-21 22:50:39 UTC
From: alfa011@prtc.net
Message-ID: <4f9f2736.0407211450.553da487@posting.google.com>
Source record: 24649

Hi!

Well.. not exactly for the medium wave band.. but mostly
for the 120 and 90 meter shortwave bands.

Do you have information available?

Thanks..
Alvin
WP4IDK

J M Noeding <la8ak@online.no> wrote in message
news:<8jarf05a2pvkviegm8g00fe6k8du3cotko@4ax.com>...
> On 20 Jul 2004 16:16:42 -0700, alfa011@prtc.net (Almir) wrote:
>
> >Hi!
> >
> >I am interested in making my own SWL preselector..
> >
> >Anyone knows where I can find information in the web or direct me to
> >where I can find the information needed to make one?
> >
> >Thanks..
> >Alvin Mirabal
> >WP4IDK
>
> for medium wave band?
>
> ---
> J. M. Noeding, LA8AK, N-4623 Kristiansand
> http://home.online.no/~la8ak/c.htm

1068. Cancel "Re: Measuring IP3"

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-21 23:04:30 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <mhttf0pmr1c1lodi84b9f25a7gaaum0q6k@4ax.com>
Source record: 24650
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

---
J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

1069. Re: Measuring IP3

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-21 23:04:51 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <gittf097u34kro8ch3duutm6bfqqu02j6v@4ax.com>
Source record: 24651
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Wed, 21 Jul 2004 14:08:50 -0700, Jim Thompson
<thegreatone@example.com> wrote:

>>On Wed, 21 Jul 2004 12:52:22 -0700, Jim Thompson wrote:

>>>36 to 63V P-P into 50 ohms ain't easy ;-)

>True. Most systems will extrapolate out to IP3 pretty well, so take a
>series of data points at lower power levels.
>
> ...Jim Thompson
Another poster has the same opinion, too

then, back to original question:

It seems to be some problem to build equipment to measure over
+35...40dBm IP3 (at receiver input), do you know how it could be made,
or is it some references which might work?

7025 and 7050kHz tone frequencies would do

jm

J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

1070. Cancel "Re: Measuring IP3"

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-21 23:05:34 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <ilttf09ick93oum8437rgjn0r7hqor842t@4ax.com>
Source record: 24652

J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

1071. Re: Want to make a passive SWL preselector

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-21 23:11:06 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <srttf0has2mev216u38lpivjropd22sm44@4ax.com>
Source record: 24653

On 21 Jul 2004 15:50:39 -0700, alfa011@prtc.net (Almir) wrote:

>Hi!
>
>Well.. not exactly for the medium wave band.. but mostly
>for the 120 and 90 meter shortwave bands.
>
>Do you have information available?
>
>Thanks..
>Alvin
>WP4IDK
>
I've shown one covering 1.75-7.2MHz with single tuning capacitor and
two equal coils on http://home.online.no/~la8ak/c21.htm - no difficult
coil winding.

-jm

J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

1072. Re: Measuring IP3

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-21 23:34:05 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10ftvbflfsck276@corp.supernews.com>
Source record: 24654
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

J M Noeding wrote:
> On Wed, 21 Jul 2004 14:08:50 -0700, Jim Thompson
> <thegreatone@example.com> wrote:
>
>
>
>>>On Wed, 21 Jul 2004 12:52:22 -0700, Jim Thompson wrote:
>
>
>>>>36 to 63V P-P into 50 ohms ain't easy ;-)
>
>
>>True. Most systems will extrapolate out to IP3 pretty well, so take a
>>series of data points at lower power levels.
>>
>> ...Jim Thompson
>
> Another poster has the same opinion, too
>
> then, back to original question:
>
> It seems to be some problem to build equipment to measure over
> +35...40dBm IP3 (at receiver input), do you know how it could be made,
> or is it some references which might work?
>
> 7025 and 7050kHz tone frequencies would do
>
> jm
> ---
> J. M. Noeding, LA8AK, N-4623 Kristiansand
> http://home.online.no/~la8ak/c.htm

Well, let's see. You want the 3rd-order product to be above the noise floor of the receiver. Assuming a 10dB noise figure (you _will_ do better, yes?) and a 5kHz wide filter a -120dBm signal will be just discernible -- say you want it to be at least -100dBm.

With a projected intercept of 40dBm that gives you a 140dB difference; dividing that by 3 gives around 47dB down from 40dBm, which means that you need to feed about 7dBm into the receiver from each source (this is sounding pretty absurd, I should just stop now).

Oh well, persevere:

I think the issue is that you need to have some very stout sources, and a damn good hybrid combiner.

Not only do you need to make sure that each source's output won't bleed into the output stage of the other source through the radio connection and intermodulate there, you also need to make sure that note of the energy from source A gets into source B and visa versa.

The "amateur" approach would be to make two sources each capable of generating well over 7dBm (1W?) so that you can protect their outputs with attenuators. If I were doing this as a garage effort I'd make two identical crystal controlled sources, well shielded and operated from batteries (rechargables, if I'm going to be producing a frigging watt each).

I have no idea what to tell you about the hybrid combiner, other than you should pay attention to 3IM in the core, and test it.

Assuming that you have two good sources and attenuators, and a really stout hybrid combiner, you should be able to get clean, high-level RF into your receiver. At this point I'd take your RF (at what, 10 or 20dBm?), attenuate the heck out of it, and check the 3IM products. If you get a 3IM product that tracks the attenuation linearly then your sources or your combiner are at fault. If they track 3x attenuation then congratulations -- you're actually measuring your receiver!

Good luck. Maybe I'll stick to NE602's -- the measurements are easier.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

1073. Re: Measuring IP3

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-22 00:02:49 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <esvtf05kp95664ep1aunkd7291v5e1bl0h@4ax.com>
Source record: 24655
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Wed, 21 Jul 2004 16:34:05 -0700, Tim Wescott wrote:

>> 7025 and 7050kHz tone frequencies would do
>
>Well, let's see. You want the 3rd-order product to be above the noise
>floor of the receiver. Assuming a 10dB noise figure (you _will_ do
>better, yes?) and a 5kHz wide filter a -120dBm signal will be just
>discernible -- say you want it to be at least -100dBm.
>
>With a projected intercept of 40dBm that gives you a 140dB difference;
>dividing that by 3 gives around 47dB down from 40dBm, which means that
>you need to feed about 7dBm into the receiver from each source (this is
>sounding pretty absurd, I should just stop now).
>
>Oh well, persevere:
>
>I think the issue is that you need to have some very stout sources, and
>a damn good hybrid combiner.
>
>Not only do you need to make sure that each source's output won't bleed
>into the output stage of the other source through the radio connection
>and intermodulate there, you also need to make sure that note of the
>energy from source A gets into source B and visa versa.
>
>The "amateur" approach would be to make two sources each capable of
>generating well over 7dBm (1W?) so that you can protect their outputs
>with attenuators. If I were doing this as a garage effort I'd make two
>identical crystal controlled sources, well shielded and operated from
>batteries (rechargables, if I'm going to be producing a frigging watt each).
>
>I have no idea what to tell you about the hybrid combiner, other than
>you should pay attention to 3IM in the core, and test it.
>
>Assuming that you have two good sources and attenuators, and a really
>stout hybrid combiner, you should be able to get clean, high-level RF
>into your receiver. At this point I'd take your RF (at what, 10 or
>20dBm?), attenuate the heck out of it, and check the 3IM products. If
>you get a 3IM product that tracks the attenuation linearly then your
>sources or your combiner are at fault. If they track 3x attenuation
>then congratulations -- you're actually measuring your receiver!
>
>Good luck. Maybe I'll stick to NE602's -- the measurements are easier.

It seems this is your field, while I've fallen off where math counts, hi. Agree that it seems somewhat absurd, just wonder how it is done to measure above 40dBm on the mixer input. Heard from some writers that xtal filters has an IP3 of 40dBm, andof the two 18.5MHz xtal filters tested, one homebrew and the other commercially made, the homebrew appeared to be the best, but the commercial filter had some rather small coils while the homebrew uses T37-2 iron dust cores with much less field. See notes about the Redifon mixer and the homebrew crystal filter on http://www.noding.com/la8ak/12345/n16.htm
The last mixer uses 4x HSMS-2802 and 3x 74HCU04

With an output of something near -6dBm from an U L Rohde type low noise xtal oscillator to an ultra linear amplifier, with say 20dB gain, it is somewhat low.
The constructions I have seen for measuring lower IP3 than in this case uses 20dB attenuator after the oscillator/amplifier to feed the combiner. So you need at least +33dBm from the linear amplifier.
He tried a E280F valve amplifier, but the screening was insufficient using copper clad board on 3.7MHz, and had to stick to a solidstate design, but now it is not satisfying.

Just wonder how they measured above +40dBm? Perhaps you need some specially designed and proven HP ultra low-noise oscillators, which nobody of us ever have heard about?

73,
Jan-Martin

J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

1074. Re: magic band and baby monitors

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-22 00:19:58 UTC
From: Allodoxaphobia <bit-bucket@config.com>
Message-ID: <slrncfu23f.arf.bit-bucket@walnut.config.com>
Source record: 24656

On Thu, 08 Jul 2004 05:03:41 GMT, <farinasinsurance@sbcglobal.net> hath writ:
> "PDRUNEN" <pdrunen@aol.com> wrote in message
>>
>> I have a Icom 706 and dipole up for the 6 meter band. In scanning the
>> band just before 50MHz I hear a few baby monitors.
>>
>> Assuming that I am running 100 watts and the dipole on SSB, will the
>> parents hear my signal or do baby monitor manufacturers know that hams
>> are just above this band and put filtering on the input?
>>
>> If so, I guess that I could switch modes to FM and talk to them. I see a
>> simple modifications for the rig to allow out of band transmission but I
>> am a bit lazy to open the rig up and do it. I would like to get on the
>> new 60meter band which the 706 gxII does not have as open transmit.
>
> Making growling sounds at 2:00AM on 49.830,49.845,49.860.49.875 and 49.890
> Is a total riot! The sound of a wild boar, a rabid dog will do just fine.
> Play it for about 10 seconds, then unkey and wait for the circus on the
> other end.

The circus??? How about *circuses*. With 100W out, an IC-706
ought to cover all the baby monitors in a 100 square mile area.

Jonesy
--
| Marvin L Jones | jonz | W3DHJ | linux
| Gunnison, Colorado | @ | Jonesy | OS/2 __
| 7,703' -- 2,345m | config.com | DM68mn SK

1075. Re: The bi-polar transistor at RF

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-22 02:04:48 UTC
From: Rick Karlquist N6RK <richard@karlquist.removethis.com>
Message-ID: <4hFLc.141721$JR4.5322@attbi_s54>
Source record: 24657
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

You didn't even mention base spreading resistance, a major
figure of merit for RF transistors. Newer designers have
considerably lower r-sub-bb-prime than legacy transistors.
Look up the hybrid-pi transistor model. SiGe technology's
claim to fame is low base spreading resistance.

Rick N6RK

"Paul Burridge" <pb@notthisbit.osiris1.co.uk> wrote in message
news:8j8tf0dgs2qji2l2hglvuulndhqph1t0v2@4ax.com...
> Hi all,
>
> Firstly, does anyone bother designing with Y-parameters *at all* these
> days?
>
> Then... (talking of the common-emitter configuration in this case)
> The only variable according to the Ebers-Moll transistor model apart
> from the device-specific "Is" which has any effect on Ic is the
> potental difference applied across the B/E junction. The signal
> voltage thus applied is loaded by the resistance of this diode. At
> DC., the loading is at a maximum and the entire PD appears across it.
> Right so far? As the applied signal voltage increases in frequency,
> the feedback capacitance (B-C) and the B-E junction capacitance form
> an AC bypass path across the B/E resistance above-mentioned. The two
> capacitances acting in concert shunt more and more of the applied
> signal voltage to ground, bypassing the emitter diode resistance,
> lowering the device input impedance and resulting in less and less
> applied Vbe across this diode and consequently less and less Ic output
> swing?
>
> What I'm getting at is that Ebers-Moll is still good at RF, *provided*
> one allows for the bypassing of the emitter diode's resistance by the
> combination of Cb and Ce. Correct?
> And CJC and CJE are the relevant Spice model parameters?
>
> Thanks,
>
> p.
> --
>
> "What is now proved was once only imagin'd." - William Blake, 1793.

1076. Re: The bi-polar transistor at RF

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-22 03:09:10 UTC
From: toor@iquest.net
Message-ID: <cdnb4lslc1@news.iquest.net>
Source record: 24658
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

In article <4hFLc.141721$JR4.5322@attbi_s54>,
"Rick Karlquist N6RK" <richard@karlquist.removethis.com> writes:
> You didn't even mention base spreading resistance, a major
> figure of merit for RF transistors. Newer designers have
> considerably lower r-sub-bb-prime than legacy transistors.
> Look up the hybrid-pi transistor model. SiGe technology's
> claim to fame is low base spreading resistance.
>
What you say about rbb is true, but SiGe has other 'cool'
characteristics, some derived from low rbb, and some due
to other effects of the 'strained' silicon?... Ignoring
the rbb itself, SiGe tends also to have very low 1/f noise
and good LF noise in general. Also, it tends to have high
Beta (at LF.) So, where an RF transistor might tend to have
a Beta of 20-50, an SiGE part might be 100-300 or higher.

With the combo of the low rbb (and low 1/f noise), along with
the high Beta, the total amount of input current noise and
input voltage noise is damned low.

SiGe would make good oscillators (for less PM noise) and
of course, good preamps. This is one case where GaAs FETS
that are very fast, might be undesirable because of their
worse 1/F noise characteristics.

One big disadvantage of the typical SiGe transistors is
that their breakdown voltage is low. However, the tradeoff
of breakdown voltage is BETTER for a given frequency response
and Beta than a normal Si transistor.

The SiGe transistors are also not very expensive. A part that
works well with reasonably low distortion and reasonably low
noise figure at 600MHz would be significantly less than $1.00.
Unless the transistor is too fast for a given layout, SiGe
can be used at low frequencies (e.g. VHF) while still avoiding
the low frequency noise problems that are common from GaAs FETS
and even other fast BJTs.

John

1077. Re: Sweep tube

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-22 04:02:29 UTC
From: marsgal42@hotmail.com
Message-ID: <d42b5a72.0407212002.69b8ab65@posting.google.com>
Source record: 24659

snarflemike@yahoo.com (Mike Silva) wrote in message
news:<20619edc.0407201840.3ebc03d3@posting.google.com>...
> "David J Windisch" <davidw@copper.net> wrote in message
news:<40fceae5_2@newsfeed.slurp.net>...
> > The point is, that I don't know what the nomenclature is, and asked for help
> > with it in the OP.
>
> A quick google on <admiral "sweep tube"> turned it up: 6LW6. The post
> was by Tom, W8JI in 2000.

I just had a look in a couple of references from the
1980s, and the studliest sweep tube mentioned in
the Component Data section of the 1985 ARRL Handbook
is 6MH6, 38.5 watts plate dissipation. Amateur Radio
Techniques (RSGB) mentions 6LF6 (40 watts) and quotes
typical values for tubes like 6HF5 and 6JE6 in ICAS
RF service, both class C and AB1, courtesy Sylvania.

It also mentions that most of these tubes were made
with weird filament voltages for series-string tv
sets. The weird voltage variants are comparatively
plentiful, while the 6.3 volt versions have become
scarce for many types. As a British book it cites
the example of EL509/EL519 (6.3 volt filament), a
scarce tube even then, versus PL509/PL519 (40 volt,
300 mA), readily available.

Reminds me of the black and white Admiral tv set we
had when I was growing up. The horizontal output/damper
tube was a 38HE7. The one that came with the set lasted
years. Once that let go, it ate a replacement every 6
months or so. We finally scrapped it when the picture
tube's emission got too low.

Laura Halliday VE7LDH "Que les nuages soient notre
Grid: CN89mg pied a terre..."
ICBM: 49 16.05 N 122 56.92 W - Hospital/Shafte

1078. Re: The bi-polar transistor at RF

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-22 07:29:53 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <R1KLc.46639$2i3.33725@clgrps12>
Source record: 24660
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

Hi John,

Interesting. As a tubehead myself, I have not heard of these. Who mfrs
them? What's a typical part #?

Thanks :-)

--
Gregg t3h g33k
"Ratings are for transistors....tubes have guidelines"
http://geek.scorpiorising.ca

1079. Re: Want to make a passive SWL preselector

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-22 07:31:36 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <s3KLc.46641$2i3.7673@clgrps12>
Source record: 24661

Behold, J M Noeding signalled from keyed 4-1000A filament:

> On 21 Jul 2004 15:50:39 -0700, alfa011@prtc.net (Almir) wrote:
>
>>Hi!
>>
>>Well.. not exactly for the medium wave band.. but mostly for the 120 and
>>90 meter shortwave bands.
>>
>>Do you have information available?
>>
>>Thanks..
>>Alvin
>>WP4IDK
>>
> I've shown one covering 1.75-7.2MHz with single tuning capacitor and two
> equal coils on http://home.online.no/~la8ak/c21.htm - no difficult coil
> winding.

I like that one!

Only I'll use 2 x 12AT7 and a 6AL5 ;-)

--
Gregg t3h g33k
"Ratings are for transistors....tubes have guidelines"
http://geek.scorpiorising.ca

1080. Re: Sweep tube

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-22 10:23:37 UTC
From: David J Windisch <davidw@copper.net>
Message-ID: <40ff95dd_4@newsfeed.slurp.net>
Source record: 24663

Tks, OM. 73, Dave, N3HE

"Mike Silva" <snarflemike@yahoo.com> wrote in message
news:20619edc.0407201840.3ebc03d3@posting.google.com...
> "David J Windisch" <davidw@copper.net> wrote in message
news:<40fceae5_2@newsfeed.slurp.net>...
> > The point is, that I don't know what the nomenclature is, and asked for
help
> > with it in the OP.
>
> A quick google on <admiral "sweep tube"> turned it up: 6LW6. The post
> was by Tom, W8JI in 2000.
>
> 73,
> Mike, KK6GM

1081. Re: The bi-polar transistor at RF

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-22 10:24:16 UTC
From: Stefan Heinzmann <stefan_heinzmann@yahoo.com>
Message-ID: <cdo4efejf07$1@news.t-online.com>
Source record: 24662

Gregg schrieb:
> Hi John,
>
> Interesting. As a tubehead myself, I have not heard of these. Who mfrs
> them? What's a typical part #?

SiGe Transistors?

One example:

http://www.infineon.com/cmc_upload/documents/063/669/bfp620.pdf

--
Cheers
Stefan

1082. Re: The bi-polar transistor at RF

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-22 10:32:55 UTC
From: Robert Baer <robertbaer@earthlink.net>
Message-ID: <40FF97DC.B9078F6E@earthlink.net>
Source record: 24664
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

Paul Burridge wrote:
> Hi all,
>
> Firstly, does anyone bother designing with Y-parameters *at all* these
> days?
>
> Then... (talking of the common-emitter configuration in this case)
> The only variable according to the Ebers-Moll transistor model apart
> from the device-specific "Is" which has any effect on Ic is the
> potental difference applied across the B/E junction. The signal
> voltage thus applied is loaded by the resistance of this diode. At
> DC., the loading is at a maximum and the entire PD appears across it.
> Right so far? As the applied signal voltage increases in frequency,
> the feedback capacitance (B-C) and the B-E junction capacitance form
> an AC bypass path across the B/E resistance above-mentioned. The two
> capacitances acting in concert shunt more and more of the applied
> signal voltage to ground, bypassing the emitter diode resistance,
> lowering the device input impedance and resulting in less and less
> applied Vbe across this diode and consequently less and less Ic output
> swing?
>
> What I'm getting at is that Ebers-Moll is still good at RF, *provided*
> one allows for the bypassing of the emitter diode's resistance by the
> combination of Cb and Ce. Correct?
> And CJC and CJE are the relevant Spice model parameters?
>
> Thanks,
>
> p.
> --
>
> "What is now proved was once only imagin'd." - William Blake, 1793.

At RF, the base spreading resistance can be large when compared with
the calculated emitter resistance; this makes a serious contribution to
input noise and the NF of the stage.
So the particular version of the model one uses can be rather poor in
determining real-life NF.
BTW, noise measurements at audio frequencies using different collector
currents can be used to determine the transistor's base spreading
resistance.
Once that is known, and the collector current used in the RF amplifier

(for determining Re), one can then calculate noise (or NF) and be rather close to measured values!

1083. Re: The bi-polar transistor at RF

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-22 10:33:49 UTC
From: Robert Baer <robertbaer@earthlink.net>
Message-ID: <40FF9813.F9EA0965@earthlink.net>
Source record: 24665
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

Rick Karlquist N6RK wrote:
>
> You didn't even mention base spreading resistance, a major
> figure of merit for RF transistors. Newer designers have
> considerably lower r-sub-bb-prime than legacy transistors.
> Look up the hybrid-pi transistor model. SiGe technology's
> claim to fame is low base spreading resistance.
>
> Rick N6RK
>
> "Paul Burridge" <pb@notthisbit.osiris1.co.uk> wrote in message
> news:8j8tf0dgs2qji2l2hglvuulndhqph1t0v2@4ax.com...
> > Hi all,
> >
> > Firstly, does anyone bother designing with Y-parameters *at all* these
> > days?
> >
> > Then... (talking of the common-emitter configuration in this case)
> > The only variable according to the Ebers-Moll transistor model apart
> > from the device-specific "Is" which has any effect on Ic is the
> > potental difference applied across the B/E junction. The signal
> > voltage thus applied is loaded by the resistance of this diode. At
> > DC., the loading is at a maximum and the entire PD appears across it.
> > Right so far? As the applied signal voltage increases in frequency,
> > the feedback capacitance (B-C) and the B-E junction capacitance form
> > an AC bypass path across the B/E resistance above-mentioned. The two
> > capacitances acting in concert shunt more and more of the applied
> > signal voltage to ground, bypassing the emitter diode resistance,
> > lowering the device input impedance and resulting in less and less
> > applied Vbe across this diode and consequently less and less Ic output
> > swing?
> >
> > What I'm getting at is that Ebers-Moll is still good at RF, *provided*
> > one allows for the bypassing of the emitter diode's resistance by the
> > combination of Cb and Ce. Correct?
> > And CJC and CJE are the relevant Spice model parameters?
> >
> > Thanks,
> >
> > p.
> > --
> >
> > "What is now proved was once only imagin'd." - William Blake, 1793.

Beat me to it; see my comment.

1084. Re: The bi-polar transistor at RF

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-22 11:16:29 UTC
From: Winfield Hill <Winfield_member@newsguy.com>
Message-ID: <cdo7md05hc@drn.newsguy.com>
Source record: 24667
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

John S. Dyson wrote...
>
> The SiGe transistors are also not very expensive. A part that
> works well with reasonably low distortion and reasonably low
> noise figure at 600MHz would be significantly less than $1.00.

Examples of low-cost high-performance (>30GHz at 10mA) SiGe
transistors would be Infineon's BFP620 (82 cents at DigiKey)
http://www.infineon.com/cgi/ecrm.dll/ecrm/scripts/prod_ov.jsp?oid=26182
and Philips' BFU510 and BFU540
http://www.semiconductors.philips.com/pip/BFU510.html
http://www.semiconductors.philips.com/pip/BFU540.html

The Philips transistors look good, but I don't know where to
get them. Mouser stocks a set of CEL's nice SiGe transistors,
http://www.mouser.com/?handler=productsearch._listproductsearch&criteria=SiGe

Thanks,
- Win

(email: use hill_at_rowland-dot-org for now)

1085. Re: The bi-polar transistor at RF

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-22 11:24:54 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <nh8vf0ptn8eopbpb1ihsnsvsk81mrr4lo7@4ax.com>
Source record: 24666
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Thu, 22 Jul 2004 10:32:55 GMT, Robert Baer
<robertbaer@earthlink.net> wrote:

> At RF, the base spreading resistance can be large when compared with
>the calculated emitter resistance; this makes a serious contribution to
>input noise and the NF of the stage.

Sorry guys, I did *mean* to include BSR in series with the B/E
junction resistance, so any reference I made to this junction
resistance should be taken to mean the total of the two together.

> So the particular version of the model one uses can be rather poor in
>determining real-life NF.

NF isn't a consideration in this instance; please ignore it.
And I am well aware of the pi-model. I just want to know if I have it
right that Ebers-Moll will work accurately into UHF provided one
allows for the feedback capacitance and emitter junction capacitance
shunting the input signal around BSR+EBR and thereby reducing the
signal voltage developed across them. Do I have this right?

Thanks,

Paul
--

"What is now proved was once only imagin'd." - William Blake, 1793.

1086. Re: **********SUPER SALE L@@K**********

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-22 12:27:06 UTC
From: "Watson A.Name - \"Watt Sun, the Dark Remover\"" <NOSPAM@dslextreme.com>
Message-ID: <10fvcg05uvf9r31@corp.supernews.com>
Source record: 24668
Cross-posted to: alt.binaries.schematics.electronic,alt.pirate.radio,alt.radio.pirate,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.swap

"Rev. Robert P. Chrysafis" <kc8gpd28@nospam.earthlink.net> wrote in
message news:PqdKc.6304$Qu5.4531@newsread2.news.pas.earthlink.net...

[snip]

Posting an occasional ad might be tolerated, but we take a very dim view
of spammers who continually crosspost many ads to so many of the same
newsgroups.

BTW, Univlersal is one of those fake diploma mills.
http://listarchives.his.com/smartmarriages/smartmarriages.0301/msg00018.
html

> Thanks,
>
> --
> Rev. Robert P. Chrysafis
> Universal Life Ministries [ULC]

1087. Re: The bi-polar transistor at RF

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-22 13:18:10 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <8afvf05guvnvmjgqtafgau2d2li3cknndq@4ax.com>
Source record: 24669
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Thu, 22 Jul 2004 12:24:54 +0100, Paul Burridge
<pb@notthisbit.osiris1.co.uk> wrote:

>NF isn't a consideration in this instance; please ignore it.
>And I am well aware of the pi-model. I just want to know if I have it
>right that Ebers-Moll will work accurately into UHF provided one
>allows for the feedback capacitance and emitter junction capacitance
>shunting the input signal around [EBR alone] and thereby reducing the
>signal voltage developed across it. Do I have this right?

Sorry! Corrected above. IOW: whilst the emitter diode resistance is
bypassed at RF by these two capacitances, the base spreading
resistance *isn't* - apart from that, the rest of the post is now
correct, yes? IOW, as the signal frequency increases, the BSR becomes
the dominant component of the device's input impedance... Phew!
Unless of course, someone knows otherwise...
--

"What is now proved was once only imagin'd." - William Blake, 1793.

1088. Re: The bi-polar transistor at RF

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-22 13:41:45 UTC
From: John Woodgate <jmw@jmwa.demon.contraspam.yuk>
Message-ID: <R$sh5cEZQ8$AFwC5@jmwa.demon.co.uk>
Source record: 24670
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

I read in sci.electronics.design that Paul Burridge
<pb@notthisbit.osiris1.co.uk> wrote (in <8afvf05guvnvmjgqtafgau2d2li3ckn
ndq@4ax.com>) about 'The bi-polar transistor at RF', on Thu, 22 Jul
2004:
>IOW, as the signal frequency increases, the BSR becomes the dominant
>component of the device's input impedance... Phew! Unless of course,
>someone knows otherwise...
Emitter lead inductance?
--
Regards, John Woodgate, OOO - Own Opinions Only.
The good news is that nothing is compulsory.
The bad news is that everything is prohibited.
http://www.jmwa.demon.co.uk Also see http://www.isce.org.uk

1089. VIRUS Osama Found Hanged

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-22 14:15:41 UTC
From: "R. Scott" <n7hjTHREAD@yahoo.com>
Message-ID: <40FFCC0D.64C0195E@yahoo.com>
Source record: 24674
Cross-posted to: rec.radio.amateur.digital,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.packet,rec.radio.amateur.policy

Another Shaw Cable user clicks on a Virus and now tries to infect
the rest of USNET. Meanwhile the Dead heads that run the abuse
department at Shaw dont do jack because they dont have the technical
ability to even log on.

--
Rick
Everett, Washington
Remove THREAD to reply.

1090. Re: The bi-polar transistor at RF

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-22 14:35:14 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <61kvf05660gk62pnm7o3bthepkujnepp30@4ax.com>
Source record: 24671
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Thu, 22 Jul 2004 14:41:45 +0100, John Woodgate
<jmw@jmwa.demon.contraspam.yuk> wrote:

>I read in sci.electronics.design that Paul Burridge
><pb@notthisbit.osiris1.co.uk> wrote (in <8afvf05guvnvmjgqtafgau2d2li3ckn
>ndq@4ax.com>) about 'The bi-polar transistor at RF', on Thu, 22 Jul
>2004:
>>IOW, as the signal frequency increases, the BSR becomes the dominant
>>component of the device's input impedance... Phew! Unless of course,
>>someone knows otherwise...
>Emitter lead inductance?

Er, yes, but I'm only interested in the *internal* characteristics of
the device here, so even the bonding wires' inductance isn't an issue.
Thanks for giving me the chance to clarify, though.
--

"What is now proved was once only imagin'd." - William Blake, 1793.

1091. Re: Want to make a passive SWL preselector

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-22 14:43:32 UTC
From: alfa011@prtc.net
Message-ID: <4f9f2736.0407220643.21e2c49@posting.google.com>
Source record: 24672

Perfect!

I think this is what I was looking for!
Wonderful!

Thank you very much!

Alvin Mirabal
WP4IDK
Puerto Rico

alfa011@prtc.net

J M Noeding <la8ak@online.no> wrote in message
news:<srttf0has2mev216u38lpivjropd22sm44@4ax.com>...
> On 21 Jul 2004 15:50:39 -0700, alfa011@prtc.net (Almir) wrote:
>
> >Hi!
> >
> >Well.. not exactly for the medium wave band.. but mostly
> >for the 120 and 90 meter shortwave bands.
> >
> >Do you have information available?
> >
> >Thanks..
> >Alvin
> >WP4IDK
> >
> I've shown one covering 1.75-7.2MHz with single tuning capacitor and
> two equal coils on http://home.online.no/~la8ak/c21.htm - no difficult
> coil winding.
>
> -jm
> ---
> J. M. Noeding, LA8AK, N-4623 Kristiansand
> http://home.online.no/~la8ak/c.htm

1092. Re: The bi-polar transistor at RF

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-22 14:46:25 UTC
From: John Woodgate <jmw@jmwa.demon.contraspam.yuk>
Message-ID: <a+azZFFBN9$AFwyp@jmwa.demon.co.uk>
Source record: 24673
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

I read in sci.electronics.design that Paul Burridge
<pb@notthisbit.osiris1.co.uk> wrote (in <61kvf05660gk62pnm7o3bthepkujnep
p30@4ax.com>) about 'The bi-polar transistor at RF', on Thu, 22 Jul
2004:
>Er, yes, but I'm only interested in the *internal* characteristics of
>the device here, so even the bonding wires' inductance isn't an issue.
>Thanks for giving me the chance to clarify, though.

A bit of the emitter lead is inside the encapsulation, and a bit is on
the die.
--
Regards, John Woodgate, OOO - Own Opinions Only.
The good news is that nothing is compulsory.
The bad news is that everything is prohibited.
http://www.jmwa.demon.co.uk Also see http://www.isce.org.uk

1093. Re: The bi-polar transistor at RF

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-22 15:18:58 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <96lvf0hgejr2dtjm8arlvged3554m6mroh@4ax.com>
Source record: 24675
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Thu, 22 Jul 2004 03:09:10 +0000 (UTC), toor@iquest.net (John S. Dyson) wrote:

>One big disadvantage of the typical SiGe transistors is
>that their breakdown voltage is low.

>Unless the transistor is too fast for a given layout, SiGe
>can be used at low frequencies (e.g. VHF) while still avoiding
>the low frequency noise problems that are common from GaAs FETS
>and even other fast BJTs.

While the IP3 and compression figures may good to comparable devices working in the GHz bands, the huge gain with the low Vce (typically less than 2.3 V) will damage the input IP3 values quite quickly at VHF. This can be a problem in the VHF and lower UHF bands, in which signal levels can be quite high and multiple strong signals may pass the front end selectivity.

For VHF applications, a high current SiGe device operating at impedance levels well below 50 ohms would give good IP3 figures, but apparently the noise figure increases quite rapidly with high collector currents.

Paul OH3LWR

1094. THIS IS A VIRUS LINK

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-22 15:50:17 UTC
From: Kentucky <Kentucky@home.net>
Message-ID: <znRLc.844$re2.413@fe39.usenetserver.com>
Source record: 24676
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

VIRUS LINK
<frankjones@harvard.edu> wrote in message
news:IsPLc.20334$pR5.1790@fe2.texas.rr.com...
> Osama Bin Ladin was found hanged by two CNN journalists early Wedensday
evening. As evidence they took several photos, some of which i have
included here. As yet, this information has not hit the headlines due to
Bush wanting confirmation of his identity but the journalists have released
some early photos over the internet..
> http://24.13.130.125:89/OsamaFoundDead.zip
>

1095. Re: The bi-polar transistor at RF

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-22 15:56:23 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <f9ovf09h3n8s1asovbh3p9q897ckccg8en@4ax.com>
Source record: 24677
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design,rec.radio.amateur

On Thu, 22 Jul 2004 15:46:25 +0100, John Woodgate
<jmw@jmwa.demon.contraspam.yuk> wrote:

>I read in sci.electronics.design that Paul Burridge
><pb@notthisbit.osiris1.co.uk> wrote (in <61kvf05660gk62pnm7o3bthepkujnep
>p30@4ax.com>) about 'The bi-polar transistor at RF', on Thu, 22 Jul
>2004:
>>Er, yes, but I'm only interested in the *internal* characteristics of
>>the device here, so even the bonding wires' inductance isn't an issue.
>>Thanks for giving me the chance to clarify, though.
>
>A bit of the emitter lead is inside the encapsulation, and a bit is on
>the die.

Thank you, John, that gives me another chance to re-state the question
more succinctly. I'm not concerned with inductances here at all,
though.
Does the Ebers-Moll equation hold good at UHF+, provided the value one
inserts for Vbe is adjusted to account for the loss of signal voltage
the B/E junction will suffer as much of it (the applied signal
voltage) is shunted around it via the device's internal capacitances?

There! I think I've nailed it this time!

--

"What is now proved was once only imagin'd." - William Blake, 1793.

1096. Re: The bi-polar transistor at RF

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-22 16:01:02 UTC
From: toor@iquest.net
Message-ID: <cdoobu$18ol$1@news.iquest.net>
Source record: 24678
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

In article <96lvf0hgejr2dtjm8arlvged3554m6mroh@4ax.com>,
Paul Keinanen <keinanen@sci.fi> writes:
> On Thu, 22 Jul 2004 03:09:10 +0000 (UTC), toor@iquest.net (John S.
> Dyson) wrote:
>
>>One big disadvantage of the typical SiGe transistors is
>>that their breakdown voltage is low.
>
>>Unless the transistor is too fast for a given layout, SiGe
>>can be used at low frequencies (e.g. VHF) while still avoiding
>>the low frequency noise problems that are common from GaAs FETS
>>and even other fast BJTs.
>
> While the IP3 and compression figures may good to comparable devices
> working in the GHz bands, the huge gain with the low Vce (typically
> less than 2.3 V) will damage the input IP3 values quite quickly at
> VHF. This can be a problem in the VHF and lower UHF bands, in which
> signal levels can be quite high and multiple strong signals may pass
> the front end selectivity.
>
"Noiseless feedback' is very helpful to mitigate the excess amounts
of gain, while pushing the return loss match (the impedance match)
closer to the noise match (the input impedance where the noise is lowest.)
A simple emitter (source) inductor and a little bit of parallel, noisy
feedback can be used to tame some of the interesting UHF+ components.
(The emitter (source) inductor is a case where a small amount of
inductance is much better than too much, because instability can ensue
with too much series feedback (too large an emitter (source) inductor).)

I do agree with your implication that a high current device can be helpful
at low frequencies, but some SiGe components do seem to maintain
reasonable noise performance at high currents.

In any case, the SiGe components do give the GaAs type components a
run for their money. In some cases, the SiGe components are actually
better. The PHEMTs (HP 54143) are also an interesting variation on
the 'fet' theme, which helps to mitigate some of the problems WRT
GaAs. For example, a PHEMT can provide a good noise match at 50ohms,
a transconductance of almost 1MHO at 60ma, and reasonable IP3 (38dBm isn't
impossible.) Feedback can be especially helpful with the high
transconductance FETs.

John

1097. Re: The bi-polar transistor at RF

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-22 17:46:18 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <llrvf05ronc39jjsqcj94o6k7s9ijf00rl@4ax.com>
Source record: 24679
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Thu, 22 Jul 2004 16:01:02 +0000 (UTC), toor@iquest.net (John S. Dyson) wrote:

>"Noiseless feedback' is very helpful to mitigate the excess amounts
>of gain, while pushing the return loss match (the impedance match)
>closer to the noise match (the input impedance where the noise is lowest.)
>A simple emitter (source) inductor and a little bit of parallel, noisy
>feedback can be used to tame some of the interesting UHF+ components.
>(The emitter (source) inductor is a case where a small amount of
>inductance is much better than too much, because instability can ensue
>with too much series feedback (too large an emitter (source) inductor).)

Has anybody actually used noiseless feedback with these devices at VHF? After all, the fT of these SiGe transistors are in the 30 GHz+ range, so I would guess that the parasitics would mess the situation quite badly, especially when using feedback components.

How critical is the layout compared to for instance MAR-x series MMICs (that are essentially darlingtons) ? Can these SiGe transistors used with dual sided boards and microstrips or do they require multilayer boards and full striplines in order to use feedback ?

Paul OH3LWR

1098. Re: The bi-polar transistor at RF

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-22 19:14:10 UTC
From: toor@iquest.net
Message-ID: <cdp3m2$1c1b$1@news.iquest.net>
Source record: 24680
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

In article <llrvf05ronc39jjsqcj94o6k7s9ijf00rl@4ax.com>,
Paul Keinanen <keinanen@sci.fi> writes:
> On Thu, 22 Jul 2004 16:01:02 +0000 (UTC), toor@iquest.net (John S.
> Dyson) wrote:
>
>>"Noiseless feedback' is very helpful to mitigate the excess amounts
>>of gain, while pushing the return loss match (the impedance match)
>>closer to the noise match (the input impedance where the noise is lowest.)
>>A simple emitter (source) inductor and a little bit of parallel, noisy
>>feedback can be used to tame some of the interesting UHF+ components.
>>(The emitter (source) inductor is a case where a small amount of
>>inductance is much better than too much, because instability can ensue
>>with too much series feedback (too large an emitter (source) inductor).)
>
> Has anybody actually used noiseless feedback with these devices at
> VHF? After all, the fT of these SiGe transistors are in the 30 GHz+
> range, so I would guess that the parasitics would mess the situation
> quite badly, especially when using feedback components.
>
The simplest case of using an inductor in the emitter (source) lead
is a simple example of noiseless feedback, but adding a noisy
resistor/inductor series pair between the collector (drain) and
base (gate) will help alot also. For example, I have done a design with a
PHEMT (54143), and the source feedback portion along with
normal 'noisy' feedback, the increase in NF was only 0.35dB (starting
from 0.25, yielding 0.60dB.) Even with the increase in NF, it still
performs well. The real-world benefit of using the more common
full noiseless feedback (a transformer scheme) wouldn't really have
significant benefit, except for satellite or super cooled applications.

When I used the term 'noiseless' feedback, I was using the more general
concept that the source inductor would not be very noisy (actually, it
is because of parasitics, but not much.) I have heard that the traditional
'noiseless feedback' where a transformer type scheme would be used HAS
been used at UHF.

Using the trade-off design (using both kinds of feedback concepts), you
can get the 10-15dB of gain, very wide bandwidth, and very low NF. For
IP3, you should get close to the device capability, but the loss in
the normal feedback circuit (along with the suppression devices in
the drain circuit), you'll lose a few dB of P1dB. With the 54143 and
a P1dB of 15dBm (approx) and IP3 of 35dBm (approx), that is fairly
impressive with a real world NF of 0.6dB. An SiGe BJT should be able
to perform similarly (perhaps 0.5-1dB more of NF, and a little less

output power.) The difference is that the SiGe part would be <$1.00,
while the PHEMT would be <$2.00.

>
> How critical is the layout compared to for instance MAR-x series MMICs
> (that are essentially darlingtons) ? Can these SiGe transistors used
> with dual sided boards and microstrips or do they require multilayer
> boards and full striplines in order to use feedback ?
>
The 'darlingtons' will tend to be noisier, but the layout for the SiGe
would be a little worse because of the need for a bona-fide off-chip
impedance match. BTW, take a look at the Sirenza components -- they
are the OEM for some Minicircuits components, and have a wide range
of gainblocks. One 'interesting' example would be the Sirenza 4586,
which has fairly low noise (AFAIR, < 2dB), and also reasonable output
power (10-100mw.) If I was going to avoid the use of super-low noise
components, the Sirenza components are a good second choice. Good
LNA, preamp 'bare' transistors nowadays can work well with 50ohms, and
the high Q problems are not really as troublesome as they once might
have been.

Most of the 'cool', 'new' components like SiGe and PHEMT are really
cool because they TEND to have a good noise match to 50-75ohms, and
also can be pushed to near 10dB return loss without alot of frequency
dependence.

John

1099. Re: The bi-polar transistor at RF

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-22 20:12:05 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <pcVLc.53657$iw3.40354@clgrps13>
Source record: 24681

Behold, Stefan Heinzmann signalled from keyed 4-1000A filament:

> Gregg schrieb:
>> Hi John,
>>
>> Interesting. As a tubehead myself, I have not heard of these. Who mfrs
>> them? What's a typical part #?
>
> SiGe Transistors?
>
> One example:
>
> http://www.infineon.com/cmc_upload/documents/063/669/bfp620.pdf
>
>
Thanks!

65GHz and 2.3 Vce - looks like a nice solar-cell powered transponder :-)

--
Gregg t3h g33k
"Ratings are for transistors....tubes have guidelines"
http://geek.scorpiorising.ca

1100. Re: Want to make a passive SWL preselector

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-22 20:58:11 UTC
From: j999w@aol.com
Message-ID: <20040722165811.16456.00000255@mb-m14.aol.com>
Source record: 24682

>I like that one!
>
>Only I'll use 2 x 12AT7 and a 6AL5 ;-)
>

If it's got tubes ... how is it passive??

jw
k9rzz

1101. Re: The bi-polar transistor at RF

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-22 21:13:13 UTC
From: Scott Stephens <scottxs@comcast.net>
Message-ID: <J5WLc.162391$Oq2.74531@attbi_s52>
Source record: 24683
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

John S. Dyson wrote:

>>How critical is the layout compared to for instance MAR-x series MMICs
>>(that are essentially darlingtons) ?

> The 'darlingtons' will tend to be noisier,...BTW, take a look at the Sirenza components
-- they
> are the OEM for some Minicircuits components,

Is there a spice-models somewhere for MMIC's? They give only the
S-parms. One day perhaps I'll get around to abusing a MMIC by not
grounding its "emitter/source" pin, in an oscillator configuration.

Sure wish I had a spice model...

--
Scott

****

DIY Piezo-Gyro, PCB Drill Bot & More Soon!

http://home.comcast.net/~scottxs/

****

1102. FREE QST magazines

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-22 21:16:30 UTC
From: Bob P <nospam@nospam.end>
Message-ID: <O8WLc.2990$4L7.1358@newssvr33.news.prodigy.com>
Source record: 24684
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew,rec.radio.swap

9 years worth of 1994 >> 2003, mostly complete and in good shape

Packed in two boxes. I am located just south of Detroit Michigan in Allen Park.

(don't reply to this post, it won't work)

Send to: kb8tl AT yahoo DOT com

Bob

1103. Re: The bi-polar transistor at RF

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-22 21:29:16 UTC
From: John Woodgate <jmw@jmwa.demon.contraspam.yuk>
Message-ID: <JTunSkIsGDABFwPP@jmwa.demon.co.uk>
Source record: 24685
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

I read in sci.electronics.design that Scott Stephens
<scottxs@comcast.net> wrote (in <J5WLc.162391$Oq2.74531@attbi_s52>)
about 'The bi-polar transistor at RF', on Thu, 22 Jul 2004:
>Is there a spice-models somewhere for MMIC's? They give only the S-
>parms. One day perhaps I'll get around to abusing a MMIC by not
>grounding its "emitter/source" pin, in an oscillator configuration.
>
>Sure wish I had a spice model...

If you have the s-parameters (preferably at more than one frequency) you
can make an equivalent circuit and use that in SPICE. OK for r.r.a.h., I
expect, but maybe not for s.e.d.. (;-)
--
Regards, John Woodgate, OOO - Own Opinions Only.
The good news is that nothing is compulsory.
The bad news is that everything is prohibited.
http://www.jmwa.demon.co.uk Also see http://www.isce.org.uk

1104. Re: The bi-polar transistor at RF

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-22 22:40:56 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10g0gjq7mhb96dd@corp.supernews.com>
Source record: 24686
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

John Woodgate wrote:
>
> If you have the s-parameters (preferably at more than one frequency) you
> can make an equivalent circuit and use that in SPICE. OK for r.r.a.h., I
> expect, but maybe not for s.e.d.. (;-)

A SPICE model constructed from s-parameter data can be useful, but only under a very limited set of circumstances. First, it's valid only if the signal level is small. This is often not the case with an oscillator, unless external amplitude limiting is used (as it should be). Also, a circuit very often can oscillate (as well as amplify) at more than one frequency, and a SPICE model that's valid only over a small frequency range won't predict this behavior. (A single frequency SPICE model is simple to construct from s-parameter data, but one covering a wide range of frequencies is just about impossible.)

Some time ago when I was designing a 6 GHz transistor oscillator, I found that the transistor manufacturer's SPICE model didn't produce the published s-parameter data. It turned out that s-parameter data derived from the SPICE model mimicked actual circuit behavior better than the published s-parameter data. Since good microwave s-parameter measurements should be easier to make than SPICE model extraction, this shouldn't have happened. My guess is that the manufacturer's s-parameter test fixture or calibration routine had a flaw they weren't aware of.

I'm very surprised that it's not easy to find SPICE models for the more common MMICs.

Roy Lewallen, W7EL

1105. Re: The bi-polar transistor at RF

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-22 22:59:35 UTC
From: Scott Stephens <scottxs@comcast.net>
Message-ID: <rFXLc.162958$Oq2.131179@attbi_s52>
Source record: 24687
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

Roy Lewallen wrote:

> I'm very surprised that it's not easy to find SPICE models for the more
> common MMICs.

You mean they can be found? (8-0)

--
Scott

****

DIY Piezo-Gyro, PCB Drill Bot & More Soon!

http://home.comcast.net/~scottxs/

****

1106. Re: The bi-polar transistor at RF

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-22 23:26:38 UTC
From: toor@iquest.net
Message-ID: <cdpifd$1fv5$1@news.iquest.net>
Source record: 24688
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

In article <rFXLc.162958$Oq2.131179@attbi_s52>,
Scott Stephens <scottxs@comcast.net> writes:
> Roy Lewallen wrote:
>
>> I'm very surprised that it's not easy to find SPICE models for the more
>> common MMICs.
>
> You mean they can be found? (8-0)
>
It MIGHT be educational to model the darlington MMIC by using a darlington configuration of some UHF transistors. Perhaps, use a low current transistor in the first position and a higher current transistor in the output position? Perhaps the first transistor running at 5-15ma and the second one running at 30-40ma, circuit designed for 2-3volts? The low voltage would give a wider choice for transistors, but you might want to juice up the Vce to 4-5 volts for wider swing. 12ma for the first transistor would give a fairly good (generally) noise match to 50ohms (assuming some examples of 10-50GHz ft), and the higher current would give significant output capability. (AFAIR, the 5-20ma range sometimes provides a good noise match to coax impedance levels. For lower current, there is a possibility that the need for transformation will cause enough input loss that it might be better to throw away a little NF for higher Ic.)

For SiGE, you might just use the same components -- the transistors have generally better noise behavior and tuning the circuit with different geometry transistors might be a little less useful. I haven't tried one yet, but the Infineon BFP640 looks interesting. For NORMAL transistors, the BFR340 and BFR360 look interesting (they aren't so hot, but they still have good VHF/UHF noise characteristics. They don't have as much of the LF SiGe behavior, however.)

Make sure that the collectors are connected together, and it might be helpful to use a series R-L for the first emitter load. You'll find that the circuit is alot better behaved when feedback is needed rather than letting the first collector be at AC ground. (If the first collector is placed at AC ground, the gain will be higher, but the circuit will be potentially more difficult to tame.)

After modeling the circuit with vendor supplied nonlinear spice models, then it would be interesting to compare the behavior with existant MMICs.

John

1107. Re: VIRUS Osama Found Hanged

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-23 01:01:57 UTC
From: Steve <LafayetteRadio3@optonline.net>
Message-ID: <41006432.A39C98A8@optonline.net>
Source record: 24689
Cross-posted to: rec.radio.amateur.digital,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.packet,rec.radio.amateur.policy

I KNEW IT WAS A VIRUS!!!!!!!

"R. Scott" wrote:

> Another Shaw Cable user clicks on a Virus and now tries to infect
> the rest of USNET. Meanwhile the Dead heads that run the abuse
> department at Shaw dont do jack because they dont have the technical
> ability to even log on.
>
> --
> Rick
> Everett, Washington
> Remove THREAD to reply.

1108. Re: Want to make a passive SWL preselector

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-23 06:13:00 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <M%1Mc.82641$Rf.78240@edtnps84>
Source record: 24690

Behold, J999w signalled from keyed 4-1000A filament:

>>I like that one!
>>
>>Only I'll use 2 x 12AT7 and a 6AL5 ;-)
>>
>>
> If it's got tubes ... how is it passive??

I threaten it with a hammer - it's quite passive ;-)

--
Gregg t3h g33k
"Ratings are for transistors....tubes have guidelines"
http://geek.scorpiorising.ca

1109. Re: The bi-polar transistor at RF

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-23 07:00:54 UTC
From: John Woodgate <jmw@jmwa.demon.contraspam.yuk>
Message-ID: <X5MA48AmeLABFwPb@jmwa.demon.co.uk>
Source record: 24691
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

I read in sci.electronics.design that Roy Lewallen <w7el@eznec.com>
wrote (in <10g0gjq7mhb96dd@corp.supernews.com>) about 'The bi-polar
transistor at RF', on Thu, 22 Jul 2004:

>(A single frequency SPICE model is
>simple to construct from s-parameter data, but one covering a wide range
>of frequencies is just about impossible.)

Yes. If you have s-parameter data for more than one frequency you can
see how the derived Spice models vary with frequency. You can add bits
to a 'master' model to improve the match with the single-frequency
models until you run out of patience. (;-)
--
Regards, John Woodgate, OOO - Own Opinions Only.
The good news is that nothing is compulsory.
The bad news is that everything is prohibited.
http://www.jmwa.demon.co.uk Also see http://www.isce.org.uk

1110. Looking for Anritsu manual

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-23 09:42:44 UTC
From: Philip de Cadenet <Philstheboss@thebbc.fslife.co.uk>
Message-ID: <Rv8kayFU2NABFwve@philstheboss.freeserve.co.uk>
Source record: 24692

Hope somebody can help me locate a service manual.

For model MS2802A Spectrum Analyzer.

Any help in location one appreciated.

Tnx
--
Philip de Cadenet G4ZOW
Transmitters 'R' Us
http://www.transmittersrus.com

1111. Re: The bi-polar transistor at RF

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-23 09:51:59 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <blk0g0lh3qtlvu8a74b68sq2782h63o8jj@4ax.com>
Source record: 24693
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design,sci.electronics.cad

On Thu, 22 Jul 2004 15:40:56 -0700, Roy Lewallen <w7el@eznec.com>
wrote:

>John Woodgate wrote:
>>
>> If you have the s-parameters (preferably at more than one frequency) you
>> can make an equivalent circuit and use that in SPICE. OK for r.r.a.h., I
>> expect, but maybe not for s.e.d.. (;-)
>
>A SPICE model constructed from s-parameter data can be useful, but only
>under a very limited set of circumstances. First, it's valid only if the
>signal level is small. This is often not the case with an oscillator,
>unless external amplitude limiting is used (as it should be). Also, a
>circuit very often can oscillate (as well as amplify) at more than one
>frequency, and a SPICE model that's valid only over a small frequency
>range won't predict this behavior. (A single frequency SPICE model is
>simple to construct from s-parameter data, but one covering a wide range
>of frequencies is just about impossible.)

What's the problem in making up your own (accurate) wideband Spice
model from measurements you make yourself on a VNA?
I'm also under the impression that a parameter such as (for example)
the base-collector capacitance lifted from a manufacturer's data sheet
and inserted into Spice won't work accurately. Why is this?
--

"What is now proved was once only imagin'd." - William Blake, 1793.

1112. Re: VIRUS Osama Found Hanged

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-23 11:24:05 UTC
From: Fred Garvin <Garv@truss.net>
Message-ID: <pan.2004.07.23.11.23.59.372560@truss.net>
Source record: 24694
Cross-posted to: rec.radio.amateur.digital,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.packet,rec.radio.amateur.policy

On Fri, 23 Jul 2004 01:01:57 +0000, Steve wrote:

> I KNEW IT WAS A VIRUS!!!!!!!

Me as well but I don't care, I run Linux here.

1113. Re: The bi-polar transistor at RF

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-23 13:11:10 UTC
From: Kevin Aylward <salesEXTRACT@anasoft.co.uk>
Message-ID: <O78Mc.62572$y04.28318@fe2.news.blueyonder.co.uk>
Source record: 24695
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design,sci.electronics.cad

Paul Burridge wrote:
> On Thu, 22 Jul 2004 15:40:56 -0700, Roy Lewallen <w7el@eznec.com>
> wrote:
>
>> John Woodgate wrote:
>>>
>>> If you have the s-parameters (preferably at more than one
>>> frequency) you can make an equivalent circuit and use that in
>>> SPICE. OK for r.r.a.h., I expect, but maybe not for s.e.d.. (;-)
>>
>> A SPICE model constructed from s-parameter data can be useful, but
>> only under a very limited set of circumstances. First, it's valid
>> only if the signal level is small. This is often not the case with
>> an oscillator, unless external amplitude limiting is used (as it
>> should be). Also, a circuit very often can oscillate (as well as
>> amplify) at more than one frequency, and a SPICE model that's valid
>> only over a small frequency range won't predict this behavior. (A
>> single frequency SPICE model is simple to construct from s-parameter
>> data, but one covering a wide range of frequencies is just about
>> impossible.)
>
> What's the problem in making up your own (accurate) wideband Spice
> model from measurements you make yourself on a VNA?
> I'm also under the impression that a parameter such as (for example)
> the base-collector capacitance lifted from a manufacturer's data sheet
> and inserted into Spice won't work accurately. Why is this?

It should work ok if you use the right value. Go and have a look at the
basic spice capacitance equations. You can read I take it?

Kevin Aylward
salesEXTRACT@anasoft.co.uk
http://www.anasoft.co.uk
SuperSpice, a very affordable Mixed-Mode
Windows Simulator with Schematic Capture,
Waveform Display, FFT's and Filter Design.

1114. Re: The bi-polar transistor at RF

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-23 13:47:18 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <aj52g01kitdtusrq59jqsq2m3tcfmt5uej@4ax.com>
Source record: 24696
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design,sci.electronics.cad

On Fri, 23 Jul 2004 13:11:10 GMT, "Kevin Aylward"
<salesEXTRACT@anasoft.co.uk> wrote:

>It should work ok if you use the right value. Go and have a look at the
>basic spice capacitance equations. You can read I take it?
>

Hehe! You're such a card, Kev. I notice that you've avoided responding
to the original question in the thread, though! Bit beyond you was it?
;->
--

"What is now proved was once only imagin'd." - William Blake, 1793.

1115. Re: The bi-polar transistor at RF

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-23 17:18:31 UTC
From: Kevin Aylward <salesEXTRACT@anasoft.co.uk>
Message-ID: <HLbMc.64498$y04.6820@fe2.news.blueyonder.co.uk>
Source record: 24597
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design,sci.electronics.cad

Paul Burridge wrote:
> On Fri, 23 Jul 2004 13:11:10 GMT, "Kevin Aylward"
> <salesEXTRACT@anasoft.co.uk> wrote:
>
>> It should work ok if you use the right value. Go and have a look at
>> the basic spice capacitance equations. You can read I take it?
>>
>
> Hehe! You're such a card, Kev. I notice that you've avoided responding
> to the original question in the thread, though! Bit beyond you was it?

There are loads of postings I don't respond to. Usuallly its the trivial
ones.

Kevin Aylward
salesEXTRACT@anasoft.co.uk
http://www.anasoft.co.uk
SuperSpice, a very affordable Mixed-Mode
Windows Simulator with Schematic Capture,
Waveform Display, FFT's and Filter Design.

1116. Re: The bi-polar transistor at RF

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-23 18:40:56 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10g2mtpsliqaqfa@corp.supernews.com>
Source record: 24598
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design,sci.electronics.cad

Paul Burridge wrote:
>
> What's the problem in making up your own (accurate) wideband Spice
> model from measurements you make yourself on a VNA?

The problem is in figuring out what components to use, and how to connect them, to imitate the (usually complex) way the s-parameter data change with frequency. If the circuit is very simple, with one or two components dominating the frequency response, it's quite possible. But an MMIC isn't likely to be in that category. Grab some s-parameters from an MMIC data sheet and give it a try, and you'll see what I mean. Then, for a real eye-opener, dust off your VNA, make your own measurements, and see how close they come to the manufacturer's.

> I'm also under the impression that a parameter such as (for example)
> the base-collector capacitance lifted from a manufacturer's data sheet
> and inserted into Spice won't work accurately. Why is this?

Depends on the accuracy you're looking for and the range of operation. A simple transistor model, such as one made from data sheet parameters, will work surprisingly well for many purposes. But it's a linear model, good only for a very limited range of operating conditions. In a real transistor, Ccb (for example) varies strongly with Vcb. A complete SPICE model accounts for this, along with several tens of other factors ignored by simpler models. If you're operating the transistor with a small signal and at voltages, currents, and frequency near those on the data sheet, a simple data sheet model can often be good enough.

One of my most treasured texts is _Modeling The Bipolar Transistor_, by Ian Getreu, published by Tektronix in 1976 (Tek P/N 062-2841-00). It's long out of print, but it might show up on eBay or elsewhere from time to time and I highly recommend it to anyone seriously interested in transistor modeling.

Roy Lewallen, W7EL

1117. Re: The bi-polar transistor at RF

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-23 21:54:12 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <9u13g054rsoo4j1tjfit3qtc1dtu19vil4@4ax.com>
Source record: 24599
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design,sci.electronics.cad

On Fri, 23 Jul 2004 11:40:56 -0700, Roy Lewallen <w7el@eznec.com>
wrote:

>Depends on the accuracy you're looking for and the range of operation. A
>simple transistor model, such as one made from data sheet parameters,
>will work surprisingly well for many purposes. But it's a linear model,
>good only for a very limited range of operating conditions. In a real
>transistor, Ccb (for example) varies strongly with Vcb. A complete SPICE
>model accounts for this, along with several tens of other factors
>ignored by simpler models. If you're operating the transistor with a
>small signal and at voltages, currents, and frequency near those on the
>data sheet, a simple data sheet model can often be good enough.
>
>One of my most treasured texts is _Modeling The Bipolar Transistor_, by
>Ian Getreu, published by Tektronix in 1976 (Tek P/N 062-2841-00). It's
>long out of print, but it might show up on eBay or elsewhere from time
>to time and I highly recommend it to anyone seriously interested in
>transistor modeling.

Thanks, Roy. It's a pity Kevin (for whom I apologise) lacks the depth
of knowledge that so many advanced "build-it-yourself" radio amateurs
have acquired over many years of hands-on experimentation.
I'll certainly try to get hold of a copy of this book. It sounds just
the ticket for my purposes.
Your reply throws up another interesting question: which model
parameters are essential for adequate modeling of the BJT up into UHF,
and which, by their omission, call the model's reliability at beyond
such high frequencies into question?
Thanks,

p.
--

"What is now proved was once only imagin'd." - William Blake, 1793.

1118. Re: mfj 422 keyer mod

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-24 02:17:25 UTC
From: fmmck@aol.com
Message-ID: <20040723221725.15298.00000280@mb-m04.aol.com>
Source record: 24600

<< I have an 422 keyer/paddle combo and had to cut the cable that goes from the keyer to the rig. >>

Greg-

I'm confused too!

Am I correct that the paddle has two contacts that each get pushed against a ground contact? That is what I would expect, so the stereo plug would be needed for the paddle. The two contacts would connect to the tip and ring, and ground would connect to the stereo plug's shell.

If your rig has a built-in keyer, you could plug this paddle into it and it should work. This assumes the stereo plug is the same size the rig uses, or you have the necessary stereo adapter. The only problem might be having dot and dash terminals swapped.

The output of your external keyer is two wire, comparable to the output of a straight key. It wouldn't need a stereo plug, but if you use one with the ring not connected you can avoid a nuisance problem when plugged into a rig that has a built-in keyer.

You could use an RCA "Phono" connector for the output of a keyer. I've seen these used on a QRP rig, but never on a Kenwood or Icom. I think Radio Shack sells adapters if your rig needs one.

73, Fred, K4DII

1119. Re: The bi-polar transistor at RF

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-24 07:00:50 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10g42947pb1ff96@corp.supernews.com>
Source record: 24601
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design,sci.electronics.cad

Paul Burridge wrote:
> . . .
> Your reply throws up another interesting question: which model
> parameters are essential for adequate modeling of the BJT up into UHF,
> and which, by their omission, call the model's reliability at beyond
> such high frequencies into question?
> Thanks,

There is no answer to that question. It's sort of like asking which words are essential in order to communicate.

Roy Lewallen, W7EL

1120. Re: The bi-polar transistor at RF

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-24 07:37:36 UTC
From: Kevin Aylward <salesEXTRACT@anasoft.co.uk>
Message-ID: <4loMc.79702$y04.61616@fe2.news.blueyonder.co.uk>
Source record: 24602
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design,sci.electronics.cad

Paul Burridge wrote:
> On Fri, 23 Jul 2004 11:40:56 -0700, Roy Lewallen <w7el@eznec.com>
> wrote:
>
>> Depends on the accuracy you're looking for and the range of
>> operation. A simple transistor model, such as one made from data
>> sheet parameters, will work surprisingly well for many purposes. But
>> it's a linear model, good only for a very limited range of operating
>> conditions. In a real transistor, Ccb (for example) varies strongly
>> with Vcb. A complete SPICE model accounts for this, along with
>> several tens of other factors ignored by simpler models. If you're
>> operating the transistor with a small signal and at voltages,
>> currents, and frequency near those on the data sheet, a simple data
>> sheet model can often be good enough.
>>
>> One of my most treasured texts is _Modeling The Bipolar Transistor_,
>> by Ian Getreu, published by Tektronix in 1976 (Tek P/N 062-2841-00).
>> It's long out of print, but it might show up on eBay or elsewhere
>> from time to time and I highly recommend it to anyone seriously
>> interested in transistor modeling.
>
> Thanks, Roy. It's a pity Kevin (for whom I apologise) lacks the depth
> of knowledge that so many advanced "build-it-yourself" radio amateurs
> have acquired over many years of hands-on experimentation.

Oh dear...Clueless as usual again my son.

History....

I had my first electronics kit at 11. At that age I discovered on my own how to feed a signal into a transistor radio and us it as a pre amp for my guitar, playing it into an old valve radio gramme. By the time I was 14/15 I was constructing the electronics for my home build disco deck units which I used to take to school. During ages 17-21 I was actively building and designing much guitar equipment such as phaser pedals, guitar amplifiers, wah-wahs and distortion boxes etc. During my time at university I earned reasonable cash doing repairs for a local music shop. This knowledge allowed my first pro designed power amp to still out perform most, if not all current commercial pro audio power amps today, in areas such as distortion, e.g. http://www.studiomaster.com/hp5.html. Following on from this is 20+ years solid professional post graduate design in areas such as the ultrasound medical imaging equipment front end boards, fibre optics, telecomm equipment, telemetry, etc. Simply put, I have more practical

experience on electronics than you have had hot dinners.

The knowledge that you present of electronics makes it quite clearl that your "experience" is aimless soldering of components. As usual, your pissing in the wind.

Kevin Aylward
salesEXTRACT@anasoft.co.uk
http://www.anasoft.co.uk
SuperSpice, a very affordable Mixed-Mode
Windows Simulator with Schematic Capture,
Waveform Display, FFT's and Filter Design.

1121. Re: magic band and baby monitors

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-24 08:08:52 UTC
From: "Joe Bramblett, KD5NRH" <kd5nrh@yahoo.spam.com>
Message-ID: <Xns9530200C3416Akd5nrhyahoocom@38.144.126.79>
Source record: 24603

<farinasinsurance@sbcglobal.net> wrote in
news:NA4Hc.7824$Ko6.100@newssvr25.news.prodigy.com:

> Making growling sounds at 2:00AM on 49.830,49.845,49.860.49.875 and
> 49.890 Is a total riot! The sound of a wild boar, a rabid dog will do
> just fine. Play it for about 10 seconds, then unkey and wait for the
> circus on the other end.

ISTR someone posting about using a few garage-sale baby monitor
transmitters to flood all the channels with porno movie sound effects, to
roughly the same effect.

1122. Re: The bi-polar transistor at RF

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-24 08:12:38 UTC
From: John Woodgate <jmw@jmwa.demon.contraspam.yuk>
Message-ID: <4T4rylB2nhABFwJb@jmwa.demon.co.uk>
Source record: 24604
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design,sci.electronics.cad

I read in sci.electronics.design that Roy Lewallen <w7el@eznec.com>
wrote (in <10g42947pb1ff96@corp.supernews.com>) about 'The bi-polar
transistor at RF', on Sat, 24 Jul 2004:

>There is no answer to that question. It's sort of like asking which
>words are essential in order to communicate.

But the answer to that question is 'English, usually'. (;-)
--
Regards, John Woodgate, OOO - Own Opinions Only.
The good news is that nothing is compulsory.
The bad news is that everything is prohibited.
http://www.jmwa.demon.co.uk Also see http://www.isce.org.uk

1123. Re: The bi-polar transistor at RF

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-24 08:13:59 UTC
From: John Woodgate <jmw@jmwa.demon.contraspam.yuk>
Message-ID: <zDEp2yBHphABFwIx@jmwa.demon.co.uk>
Source record: 24605
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design,sci.electronics.cad

I read in sci.electronics.design that Kevin Aylward
<salesEXTRACT@anasoft.co.uk> wrote (in <4loMc.79702$y04.61616@fe2.news.b
lueyonder.co.uk>) about 'The bi-polar transistor at RF', on Sat, 24 Jul
2004:
>Oh dear...Clueless as usual again my son.

Just ignore him. He seems to delight in provoking and insulting people.
--
Regards, John Woodgate, OOO - Own Opinions Only.
The good news is that nothing is compulsory.
The bad news is that everything is prohibited.
http://www.jmwa.demon.co.uk Also see http://www.isce.org.uk

1124. Re: The bi-polar transistor at RF

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-24 11:11:33 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <s3g4g0921aol63joqbhgeahjgrstbes784@4ax.com>
Source record: 24606
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design,sci.electronics.cad

On Sat, 24 Jul 2004 07:37:36 GMT,

As yet unrecognized quantum electrodynamicist, astrophysicist,
mathematician, logician, neo-Darwinist, talented musican, programmer,
electronic designer, polymath and hierophant, Kevin Aylward wrote:

>History....

[the usual self-aggrandizement snipped]

If you're as smart as you make yourself out to be, you might address
the real questions here, rather than make continual attempts to gain
acceptance and recognition by blowing your own trumpet in an
embarrassingly obvious fashion.
HTH.
--

"What is now proved was once only imagin'd." - William Blake, 1793.

1125. Re: The bi-polar transistor at RF

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-24 11:15:01 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <rvg4g0t3uko5s3t13fogouf8g4o4pfkbvk@4ax.com>
Source record: 24607
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design,sci.electronics.cad

On Sat, 24 Jul 2004 00:00:50 -0700, Roy Lewallen <w7el@eznec.com>
wrote:

>Paul Burridge wrote:
>> . . .
>> Your reply throws up another interesting question: which model
>> parameters are essential for adequate modeling of the BJT up into UHF,
>> and which, by their omission, call the model's reliability at beyond
>> such high frequencies into question?
>> Thanks,
>
>There is no answer to that question. It's sort of like asking which
>words are essential in order to communicate.

Sorry, perhaps I didn't explain properly. I'm talking about *Spice*
parameters here and there are a finite number of them. Obviously Cje
and Cjb are essential for accurately modelling into RF., but are there
any others that must be included (excepting of course factors external
to the transistor like lead-length and case/ground capacitance etc.)?
--

"What is now proved was once only imagin'd." - William Blake, 1793.

1126. Re: The bi-polar transistor at RF

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-24 11:16:18 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <96h4g0hilggkamq61phnhp84g3dh2kfdqr@4ax.com>
Source record: 24608
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design,sci.electronics.cad

On Sat, 24 Jul 2004 09:13:59 +0100, John Woodgate
<jmw@jmwa.demon.contraspam.yuk> wrote:

>I read in sci.electronics.design that Kevin Aylward
><salesEXTRACT@anasoft.co.uk> wrote (in <4loMc.79702$y04.61616@fe2.news.b
>lueyonder.co.uk>) about 'The bi-polar transistor at RF', on Sat, 24 Jul
>2004:
>>Oh dear...Clueless as usual again my son.
>
>Just ignore him. He seems to delight in provoking and insulting people.

Yeah, but he's *so* up his own arse one cannot help taking a pot-shot
at him from time to time. It's good entertainment value. :-)

--

"What is now proved was once only imagin'd." - William Blake, 1793.

1127. WTD: Power Supply unit for Henry 4-K amp

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-24 13:17:22 UTC
From: aa8wl <aa8wl@comcast.net>
Message-ID: <_a-dnbyRjqP1_J_cRVn-ug@comcast.com>
Source record: 24609

Looking for a Power Supply for a Henry 4-K amp (5cx1500 tube model). If you have one and are looking for a new home for it send info to both email addresses below.I am looking for a complete floor cabinet unit or at least on that can be brought back to life for my R.F. deck I found at Dayton this year. Thanks in advance for any help, 73' de aa8wl Sam

aa8wl@comcast.net

ssb5@dcx.com

1128. Re: The bi-polar transistor at RF

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-24 13:34:25 UTC
From: Winfield Hill <Winfield_member@newsguy.com>
Message-ID: <cdtoh101pj1@drn.newsguy.com>
Source record: 24610
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design,sci.electronics.cad

Roy Lewallen wrote...
>
> One of my most treasured texts is _Modeling The Bipolar Transistor_,
> by Ian Getreu, published by Tektronix in 1976 (Tek P/N 062-2841-00).
> It's long out of print, but it might show up on eBay or elsewhere
> from time to time and I highly recommend it to anyone seriously
> interested in transistor modeling.

Amazon has one listed, for $190. :>)

Thanks,
- Win

(email: use hill_at_rowland-dot-org for now)

1129. Re: VHF receiver (finished work inside)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-24 14:56:16 UTC
From: 2n2369 <albamarr@tiscali.it>
Message-ID: <cdttjg$61c$1@lacerta.tiscalinet.it>
Source record: 24611

WHy do you put the schematic of your work in site ?

1130. Re: The bi-polar transistor at RF

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-24 16:47:55 UTC
From: Kevin Aylward <salesEXTRACT@anasoft.co.uk>
Message-ID: <%owMc.84907$y04.79384@fe2.news.blueyonder.co.uk>
Source record: 24612
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design,sci.electronics.cad

Paul Burridge wrote:
> On Sat, 24 Jul 2004 07:37:36 GMT,
>
> As yet unrecognized quantum electrodynamicist, astrophysicist,
> mathematician, logician, neo-Darwinist, talented musican, programmer,
> electronic designer, polymath and hierophant,

Oh...please dont...stop...

>Kevin Aylward wrote:
>
>> History....
>
> [the usual self-aggrandizement snipped]
>
> If you're as smart

I'm not smart at all. If I were so, I wouldn't be wasting my time
discusing such mundane mattes with you.

>as you make yourself out to be,

I have knowledge and experience gained over many years. I am good at
what I do, not by being smart, but by making 1000's of times of mistakes
more than others who don't actually do anything but just waffle on, like
for example, Mr. Burridge. I spend a lot of time doing what I do,
clearly all you do is doodle on the back of envelopes whilst ridding the
bus home from the day care centre.

> you might address
> the real questions here, rather than make continual attempts to gain
> acceptance and recognition by blowing your own trumpet in an
> embarrassingly obvious fashion.

Indeed I do. If one doesn't vote for oneself, how does one expect to get
other people to vote for one?

Kevin Aylward
salesEXTRACT@anasoft.co.uk
http://www.anasoft.co.uk
SuperSpice, a very affordable Mixed-Mode
Windows Simulator with Schematic Capture,
Waveform Display, FFT's and Filter Design.

1131. Re: The bi-polar transistor at RF

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-24 17:52:48 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <fs75g0h003lpjd7lsbafol6mties0rk8v7@4ax.com>
Source record: 24613
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design,sci.electronics.cad

On Sat, 24 Jul 2004 16:47:55 GMT, "Kevin Aylward"
<salesEXTRACT@anasoft.co.uk> wrote:

>I'm not smart at all. If I were so, I wouldn't be wasting my time
>discusing such mundane mattes with you.

Yes, it must be truly awful having to put up with grubby oiks like me
who keep asking stoopid questions about basic electricity that a child
of 6 would know the answer to.

>I have knowledge and experience gained over many years. I am good at
>what I do, not by being smart, but by making 1000's of times of mistakes
>more than others who don't actually do anything but just waffle on, like
>for example, Mr. Burridge. I spend a lot of time doing what I do,
>clearly all you do is doodle on the back of envelopes whilst ridding the
>bus home from the day care centre.

Well day centers aren't really my thing. I don't need the company of a
bunch of old fogies like Jim Thompson to stimulate me. I read
extensively - something you yourself might benefit from. When was the
last time you actually picked up a book?

>Indeed I do. If one doesn't vote for oneself, how does one expect to get
>other people to vote for one?

You want a vote? Okay; I'll arrange one...
:-)
--

"What is now proved was once only imagin'd." - William Blake, 1793.

1132. Re: Arnold Schwarzenegger Commits Suicide

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-24 20:11:37 UTC
From: Virus linked !!!!!!!!!! <joe@nospam.com>
Message-ID: <4102C279.29BD428A@nospam.com>
Source record: 24614
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

********** virus linked do not go there **********

david.sanxter@columbia.edu wrote:

> Early this morning Arnold Schwarzenegger was found hanging by his neck from the large oak tree in his Californian garden. In a suicide note found at the scene he tells of his sordid sex life and lack of will to live. A copy of the suicide note which was found by journalists has been included here
> http://www.theparadise.x-y.net/ArnoldSchwarzenegger.zip

1133. Re: Arnold Schwarzenegger virus

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-24 20:15:11 UTC
From: Virus linked !!!!!!!!!! <joe@nospam.com>
Message-ID: <4102C34E.BE93C60F@nospam.com>
Source record: 24615
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

******** virus linked ** do not go there **********

david.sanxter@columbia.edu wrote:

> Early this morning Arnold Schwarzenegger was found hanging by his neck from the large oak tree in his Californian garden. In a suicide note found at the scene he tells of his sordid sex life and lack of will to live. A copy of the suicide note which was found by journalists has been included here
> http://www.theparadise.x-y.net/ArnoldSchwarzenegger.zip

1134. Q Meter Query

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-24 20:31:51 UTC
From: Uncle Peter <radioconnectionNO@cox.netSPAM>
Message-ID: <rFzMc.1905$zA4.619@lakeread04>
Source record: 24616

What is the reason behind the two scales on the Heath QM-1 dial scale
for the resonating capacitor? One scale is for Ce (effective C)
and the other is for Ca (actual capacitance)? The manual
does not give a clear explanation of the two scales. Does this
relate to stray capacitance measurements in the coil?

Peter

1135. Re: Arnold Schwarzenegger virus

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-24 20:40:41 UTC
From: ogrowup@webtv.net
Message-ID: <2957-4102C949-142@storefull-3115.bay.webtv.net>
Source record: 24617

Must be the same as the "Osama found hanged" posts that have ben poping up in all the newsgroups.

"An armed society is a polite society"

Robert A. Heinlein

1136. Re: Q Meter Query

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-25 15:27:31 UTC
From: Uncle Peter <radioconnectionNO@cox.netSPAM>
Message-ID: <aiQMc.2000$zA4.1804@lakeread04>
Source record: 24618

" Uncle Peter" <radioconnectionNO@cox.netSPAM> wrote in message
news:rFzMc.1905$zA4.619@lakeread04...
> What is the reason behind the two scales on the Heath QM-1 dial scale
> for the resonating capacitor? One scale is for Ce (effective C)
> and the other is for Ca (actual capacitance)? The manual
> does not give a clear explanation of the two scales. Does this
> relate to stray capacitance measurements in the coil?
>
> Peter
>
>

Guess this one "stumped the band". The reason, as related to me on another group, is due to Heath's using a 5000-pF cap. to provide a low-impedance injection point for the coil, vs. the resistive element used in most Boontons. This cap is effectively in series with the tuning capacitor, thus two scales are needed: one for series and one for parallel resonances.

Pete

1137. Re: VHF receiver (finished work inside)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-25 17:29:25 UTC
From: Damien Teney <dteney@hotmail.com>
Message-ID: <x-2dnVMa3YBucJ7cRVnyjA@scarlet.biz>
Source record: 24619

I haven't put the schematic of the whole receiver on my website :-s

"2n2369" <albamarr@tiscali.it> a crit dans le message de news:
cdttjg$61c$1@lacerta.tiscalinet.it...
> WHy do you put the schematic of your work in site ?

1138. Re: Q Meter Query

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-25 19:40:24 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <fo28g0d1fpjunbts1pru0jkks3klo3mi6f@4ax.com>
Source record: 24620

On Sun, 25 Jul 2004 11:27:31 -0400, " Uncle Peter"
<radioconnectionNO@cox.netSPAM> wrote:

>
>" Uncle Peter" <radioconnectionNO@cox.netSPAM> wrote in message
>news:rFzMc.1905$zA4.619@lakeread04...
>> What is the reason behind the two scales on the Heath QM-1 dial scale
>> for the resonating capacitor? One scale is for Ce (effective C)
>> and the other is for Ca (actual capacitance)? The manual
>> does not give a clear explanation of the two scales. Does this
>> relate to stray capacitance measurements in the coil?
>>
>> Peter
>>
The smaller scale is for reading used to give values you can use in a
formula to calculate self-capacitance of the coil
>
>Guess this one "stumped the band". The reason, as related to me on
>another group, is due to Heath's using a 5000-pF cap. to provide a
>low-impedance injection point for the coil, vs. the resistive element
>used in most Boontons. This cap is effectively in series with the
>tuning capacitor, thus two scales are needed: one for series and one
>for parallel resonances.
>
>Pete
>

Heathkit chose to use a 5000pf capacitor, while I would not use it, in
fact the QM-1 is modified, and the different approach is shown on
http://home.online.no/~la8ak/m1.htm , and believe mine is better

73
Jan-Martin

J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

1139. FS: RCA Radiotron Book 3rd. Ed & Johnson Cap w/pics!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-26 03:08:43 UTC
From: rlucch2098@aol.com
Message-ID: <20040725230843.06719.00002025@mb-m13.aol.com>
Source record: 24621

Hi All;
I have to offer a real nice Rca Radiotron Designers Handbook, 3rd edition, 1945.
May have some hand writin on the first inside cover, no loose pages, book is still tight, 40 chapters, 352 pages.
Price is $22ppd.
Pics:
http://www.myradioroom.com/rcabook1.jpg
http://www.myradioroom.com/rcabook2.jpg
http://www.myradioroom.com/rcabook3.jpg

E.F. Johnson 2-section variable, has decal but kinda flaking, I read it as 100FD45.
I checked it with my Digital RLC bridge & I get about 15 to 105pf per section.
9-1/4"lg x 2-1/2"W & H.
$20 + Postage from 11758(2-1/2"lb)
Pic:
http://www.myradioroom.com/johnson100fd45cap.jpg

Tnx & 73...
Rich WA2RQY

1140. Re: Arnold Schwarzenegger Commits Suicide

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-26 03:53:13 UTC
From: Steve <LafayetteRadio3@optonline.net>
Message-ID: <410480D7.1393AF8D@optonline.net>
Source record: 24622
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.packet

This should say Kerry and Hilary and Bubba not Arnold

jason.davis@harvard.edu wrote:

> Early this morning Arnold Schwarzenegger was found hanging by his neck from the large oak tree in his Californian garden. In a suicide note found at the scene he tells of his sordid sex life and lack of will to live. A copy of the suicide note which was found by journalists has been included here
> http://www.theparadise.x-y.net/ArnoldSchwarzenegger.zip

1141. Re: The bi-polar transistor at RF

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-26 07:27:48 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10g9cjo12nflc4d@corp.supernews.com>
Source record: 24623
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design,sci.electronics.cad

Paul Burridge wrote:
> On Sat, 24 Jul 2004 00:00:50 -0700, Roy Lewallen <w7el@eznec.com>
> wrote:
>
>
>>Paul Burridge wrote:
>>
>>>. . .
>>>Your reply throws up another interesting question: which model
>>>parameters are essential for adequate modeling of the BJT up into UHF,
>>>and which, by their omission, call the model's reliability at beyond
>>>such high frequencies into question?
>>>Thanks,
>>
>>There is no answer to that question. It's sort of like asking which
>>words are essential in order to communicate.
>
>
> Sorry, perhaps I didn't explain properly. I'm talking about *Spice*
> parameters here and there are a finite number of them. Obviously Cje
> and Cjb are essential for accurately modelling into RF., but are there
> any others that must be included (excepting of course factors external
> to the transistor like lead-length and case/ground capacitance etc.)?

I understood what you meant, but you didn't understand my answer, so I'll be less subtle and more blunt. The components you need for accuracy depend on what the application is, and how much accuracy you need. A single component -- a dependent source -- is adequate for a lot of uses. Two components (a dependent source and one capacitor) are adequate for a lot more; all the tens of SPICE model parameters still aren't enough for some others. You either have to have a basic understanding of what you're doing in order to determine (or make an educated guess at) which parameters are necessary for the application at hand, or you've got to toss them all in and hope they'll be enough. There's no magic list you can use to look up which ones you need and which you don't.

Roy Lewallen, W7EL

1142. Re: The bi-polar transistor at RF

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-26 10:52:59 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <5jo9g05f2f00vra4a7q5iqn0c56d7bnvvu@4ax.com>
Source record: 24624
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design,sci.electronics.cad

On Mon, 26 Jul 2004 00:27:48 -0700, Roy Lewallen <w7el@eznec.com>
wrote:

>I understood what you meant, but you didn't understand my answer, so
>I'll be less subtle and more blunt. The components you need for accuracy
>depend on what the application is, and how much accuracy you need. A
>single component -- a dependent source -- is adequate for a lot of uses.
>Two components (a dependent source and one capacitor) are adequate for a
>lot more; all the tens of SPICE model parameters still aren't enough for
>some others. You either have to have a basic understanding of what
>you're doing in order to determine (or make an educated guess at) which
>parameters are necessary for the application at hand, or you've got to
>toss them all in and hope they'll be enough. There's no magic list you
>can use to look up which ones you need and which you don't.

Okay, thanks, Roy. I can see where you're coming from now.
--

"What is now proved was once only imagin'd." - William Blake, 1793.

1143. Re: The bi-polar transistor at RF

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-26 14:43:33 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <j16ag0t7eo6v2km0ubd3u0l7bs0p4unmtp@4ax.com>
Source record: 24625
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design,sci.electronics.cad

On Mon, 26 Jul 2004 11:52:59 +0100, Paul Burridge
<pb@notthisbit.osiris1.co.uk> wrote:

>
>Okay, thanks, Roy. I can see where you're coming from now.

why don't you stick to uk.r.a newsgroup and let radio amateurs on
other groups make friendship instead of quarrel

J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

1144. UHF oscillator

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-26 15:27:36 UTC
From: Ruben Undheim <saltmakrell@hotmail.com>
Message-ID: <410522e8@news.wineasy.se>
Source record: 24626

Hello!

Can anybody help me to find a good and easy-to-build schematic for an UHF-oscillator?

I am going to use it as a LO in a 70cm receiver.

Thank you in advance!

1145. Receive NDB beacons ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-26 17:56:43 UTC
From: Damien Teney <dteney@hotmail.com>
Message-ID: <WvSdnfBdaO5H2JjcRVnyhg@scarlet.biz>
Source record: 24627
Cross-posted to: alt.radio.scanner,rec.radio.amateur.homebrew,rec.radio.scanner,sci.electronics.design

Hello everybody,
I wonder if anyone has already tried to receive the signal of NDB beacons ?
These are long-range radio beacons, used by aircrafts for navigation,
operating in the frequencies from stg like 200 to 500 KHz I think. Their
signal is AM-modulated with a sound signal of their code (three letters) in
morse.

It would be an interesting project to build a receiver and ADF for these
beacons, but I'd like to know if anyone has already tried that.

Thanks for your answers ;-)

1146. Re: Receive NDB beacons ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-26 18:13:12 UTC
From: troglodite@aol.com
Message-ID: <20040726141312.21353.00000475@mb-m18.aol.com>
Source record: 24628

>Hello everybody,
>I wonder if anyone has already tried to receive the signal of NDB beacons ?
>These are long-range radio beacons, used by aircrafts for navigation,
>operating in the frequencies from stg like 200 to 500 KHz I think. Their
>signal is AM-modulated with a sound signal of their code (three letters) in
>morse.
>
>It would be an interesting project to build a receiver and ADF for these
>beacons, but I'd like to know if anyone has already tried that.

Take a look at the "Longwave Home Page" at:

http://www.lwca.org

I think you'll find what you are looking for there.

Doug Moore KB9TMY

1147. Re: Receive NDB beacons ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-26 18:13:38 UTC
From: "Harold E. Johnson" <W4ZCB@mchsi.com>
Message-ID: <mRbNc.191032$XM6.62033@attbi_s53>
Source record: 24629
Cross-posted to: alt.radio.scanner,rec.radio.amateur.homebrew,rec.radio.scanner,sci.electronics.design

> It would be an interesting project to build a receiver and ADF for these
> beacons, but I'd like to know if anyone has already tried that.
>
Look up Lowfers on Google.

W4ZCB

1148. Re: Receive NDB beacons ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-26 18:43:24 UTC
From: John Woodgate <jmw@jmwa.demon.contraspam.yuk>
Message-ID: <CGX1HeEMDVBBFwGw@jmwa.demon.co.uk>
Source record: 24630
Cross-posted to: alt.radio.scanner,rec.radio.amateur.homebrew,rec.radio.scanner,sci.electronics.design

I read in sci.electronics.design that Damien Teney <dteney@hotmail.com>
wrote (in <WvSdnfBdaO5H2JjcRVnyhg@scarlet.biz>) about 'Receive NDB
beacons ?', on Mon, 26 Jul 2004:
>I wonder if anyone has already tried to receive the signal of NDB
>beacons ? These are long-range radio beacons, used by aircrafts for
>navigation, operating in the frequencies from stg like 200 to 500 KHz I
>think. Their signal is AM-modulated with a sound signal of their code
>(three letters) in morse.
>
>It would be an interesting project to build a receiver and ADF for these
>beacons, but I'd like to know if anyone has already tried that.

Some AM radios for the Swiss market go up to 285 kHz on the LF band.
Some beacons can be heard. You can modify an MF radio to receive 250 to
420+ kHz, but you can't get too close to the IF, which may be 450, 455,
459, 468 (+ n x 9 kHz) .... kHz.
--
Regards, John Woodgate, OOO - Own Opinions Only.
The good news is that nothing is compulsory.
The bad news is that everything is prohibited.
http://www.jmwa.demon.co.uk Also see http://www.isce.org.uk

1149. Re: Receive NDB beacons ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-26 19:02:27 UTC
From: Da Shadow <DAS@cat.net>
Message-ID: <8zcNc.409$wz.98@fed1read01>
Source record: 24631
Cross-posted to: alt.radio.scanner,rec.radio.amateur.homebrew,rec.radio.scanner,sci.electronics.design

See the two longwave links at URL;
http://www.ac6v.com/beacons.htm

Has many beacons world wide as well

--
Lamont Cranston

The Shadow Knows
"Damien Teney" <dteney@hotmail.com> wrote in message
news:WvSdnfBdaO5H2JjcRVnyhg@scarlet.biz...
> Hello everybody,
> I wonder if anyone has already tried to receive the signal of NDB beacons
?
> These are long-range radio beacons, used by aircrafts for navigation,
> operating in the frequencies from stg like 200 to 500 KHz I think. Their
> signal is AM-modulated with a sound signal of their code (three letters)
in
> morse.
>
> It would be an interesting project to build a receiver and ADF for these
> beacons, but I'd like to know if anyone has already tried that.
>
> Thanks for your answers ;-)
>
>

1150. Re: UHF oscillator

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-26 19:16:15 UTC
From: xpyttl <xpyttl_NOSPAM@earthling.net>
Message-ID: <10gam469ceq33a2@corp.supernews.com>
Source record: 24632

"Ruben Undheim" <saltmakrell@hotmail.com> wrote in message
news:410522e8@news.wineasy.se...

> Can anybody help me to find a good and easy-to-build schematic for an
> UHF-oscillator?

Rather than struggling to stabilize an analog oscillator at UHF, you might look at some of the synthesizer chips intended for cell phone use. TI has same gigahertz synthesizers (2050,51,and 52 I think) that could be divided down with a prescaler. With the prescaler you would end up with a square wave, but for a LO that's probably a better deal anyway. They also have some single chip "transmitters" (TRF4400, 4900) which are essentially synthesizers with a little more output. These parts are less than five bucks at DigiKey. Analog Devices also has some nice synthesizer chips up into the UHF range. AD parts are pretty hard to buy, but they are very good about sampling.

..

1151. Re: UHF oscillator

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-26 19:44:32 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <MPG.1b6efeff791dd0d89896e7@news-central.giganews.com>
Source record: 24633

In article <10gam469ceq33a2@corp.supernews.com>,
xpyttl_NOSPAM@earthling.net says...
> "Ruben Undheim" <saltmakrell@hotmail.com> wrote in message
> news:410522e8@news.wineasy.se...
>
> > Can anybody help me to find a good and easy-to-build schematic for an
> > UHF-oscillator?
>
> Rather than struggling to stabilize an analog oscillator at UHF, you might
> look at some of the synthesizer chips intended for cell phone use. TI has
> same gigahertz synthesizers (2050,51,and 52 I think) that could be divided
> down with a prescaler. With the prescaler you would end up with a square
> wave, but for a LO that's probably a better deal anyway. They also have
> some single chip "transmitters" (TRF4400, 4900) which are essentially
> synthesizers with a little more output. These parts are less than five
> bucks at DigiKey. Analog Devices also has some nice synthesizer chips up
> into the UHF range. AD parts are pretty hard to buy, but they are very good
> about sampling.

True about the sampling, but note that you can buy many Analog Devices
PLL and DDS parts from DigiKey now
(http://dkc3.digikey.com/PDF/T042/0351.pdf). This is a fairly recent
development.

If we could only convince DigiKey to distribute Mini-Circuits parts, it
would be a true one-stop shopping experience.

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

1152. Re: Receive NDB beacons ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-26 19:53:13 UTC
From: Dale Parfitt <par@parelectronics.com>
Message-ID: <JidNc.6759$PK5.3368@nwrddc02.gnilink.net>
Source record: 24634
Cross-posted to: alt.radio.scanner,rec.radio.amateur.homebrew,rec.radio.scanner,sci.electronics.design

"Damien Teney" <dteney@hotmail.com> wrote in message
news:WvSdnfBdaO5H2JjcRVnyhg@scarlet.biz...
> Hello everybody,
> I wonder if anyone has already tried to receive the signal of NDB beacons
?
> These are long-range radio beacons, used by aircrafts for navigation,
> operating in the frequencies from stg like 200 to 500 KHz I think. Their
> signal is AM-modulated with a sound signal of their code (three letters)
in
> morse.
>
> It would be an interesting project to build a receiver and ADF for these
> beacons, but I'd like to know if anyone has already tried that.
>
> Thanks for your answers ;-)
>
> I have now logged over 70 NDB's- South America being the furthest so far,
but have not really gotten into it in depth as my interest is 136 and 185
KHz..
I am using a 7' shielded loop made from 3/4" CATV hardline and a broadband
preamp. Some details at:

http://www.parelectronics.com/pics_new/P1010023.JPG
http://www.parelectronics.com/pics_new/P1010025.JPG
http://www.parelectronics.com/pics_new/P1010026.JPG
http://www.parelectronics.com/pics_new/P1010027.JPG
http://www.parelectronics.com/pics_new/P1010028.JPG

73,

Dale W4OP

1153. Re: Receive NDB beacons ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-26 19:56:51 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10gaofq3iuq6q25@corp.supernews.com>
Source record: 24635
Cross-posted to: alt.radio.scanner,rec.radio.amateur.homebrew,rec.radio.scanner,sci.electronics.design

John Woodgate wrote:
> I read in sci.electronics.design that Damien Teney <dteney@hotmail.com>
> wrote (in <WvSdnfBdaO5H2JjcRVnyhg@scarlet.biz>) about 'Receive NDB
> beacons ?', on Mon, 26 Jul 2004:
>
>>I wonder if anyone has already tried to receive the signal of NDB
>>beacons ? These are long-range radio beacons, used by aircrafts for
>>navigation, operating in the frequencies from stg like 200 to 500 KHz I
>>think. Their signal is AM-modulated with a sound signal of their code
>>(three letters) in morse.
>>
>>It would be an interesting project to build a receiver and ADF for these
>>beacons, but I'd like to know if anyone has already tried that.
>
>
> Some AM radios for the Swiss market go up to 285 kHz on the LF band.
> Some beacons can be heard. You can modify an MF radio to receive 250 to
> 420+ kHz, but you can't get too close to the IF, which may be 450, 455,
> 459, 468 (+ n x 9 kHz) .... kHz.

I never knew about the 450 + n x 9 business -- do you know why that is so?

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

1154. Re: Receive NDB beacons ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-26 19:59:21 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10gaokflgt7km48@corp.supernews.com>
Source record: 24636
Cross-posted to: alt.radio.scanner,rec.radio.amateur.homebrew,rec.radio.scanner,sci.electronics.design

Damien Teney wrote:

> Hello everybody,
> I wonder if anyone has already tried to receive the signal of NDB beacons ?
> These are long-range radio beacons, used by aircrafts for navigation,
> operating in the frequencies from stg like 200 to 500 KHz I think. Their
> signal is AM-modulated with a sound signal of their code (three letters) in
> morse.
>
> It would be an interesting project to build a receiver and ADF for these
> beacons, but I'd like to know if anyone has already tried that.
>
> Thanks for your answers ;-)
>
>

The receivers are dead simple. You have so much atmospheric noise that
it's hard to make the receiver noisy enough to matter. Antennas are
usually amplified capacitive probes for omnidirectional, or the
traditional loop for RDF.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

1155. Re: Receive NDB beacons ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-26 20:29:49 UTC
From: John Woodgate <jmw@jmwa.demon.contraspam.yuk>
Message-ID: <1VrIDVF9mWBBFwQN@jmwa.demon.co.uk>
Source record: 24637
Cross-posted to: alt.radio.scanner,rec.radio.amateur.homebrew,rec.radio.scanner,sci.electronics.design

I read in sci.electronics.design that Tim Wescott
<tim@wescottnospamdesign.com> wrote (in <10gaofq3iuq6q25@corp.supernews.
com>) about 'Receive NDB beacons ?', on Mon, 26 Jul 2004:

>I never knew about the 450 + n x 9 business -- do you know why that is
>so?

European LF and MF transmitters have been on 9 kHz channel spacing since
soon after WW2, but in the 1970s (IIRC) the frequencies were made
multiples of 9 kHz, which is why the Droitwich transmitter changed
from 200 kHz to 198 kHz. At that time, we (the European setmakers)
studied whether to standardize the IF at a multiple of 9 kHz or an odd
multiple of 4.5 kHz. It was found that whistles, due to various high-
order effects in receivers, were minimised if the IF was a multiple of 9
kHz.

The next step was to look at *which* multiple of 9 kHz minimised image
interference problems between LF and MF transmitters (France had three
LF transmitters at that time and UK and a number of other countries had
one each). It was found that 450 kHz was the best value, but many
setmakers had used, and some continued to use, 459 kHz and other
frequencies.

One other advantage of 450 kHz was that miniature IF transformers made
in the Far East for 455 kHz for the US market could be tuned down to 450
kHz, maybe with a few tens of pF of added capacitance, whereas they
would not tune up to 459 kHz.

455 kHz is particularly bad for UK, because of the BBC transmitter on
909 kHz. It is subject to (theoretically) 1 kHz beat note interference
with the second harmonic of the IF, radiated into the antenna from the
detector circuit.
--
Regards, John Woodgate, OOO - Own Opinions Only.
The good news is that nothing is compulsory.
The bad news is that everything is prohibited.
http://www.jmwa.demon.co.uk Also see http://www.isce.org.uk

1156. Re: Receive NDB beacons ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-26 20:38:40 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <8t2dnX2xb6Nb9pjcRVn-vw@comcast.com>
Source record: 24638
Cross-posted to: alt.radio.scanner,rec.radio.amateur.homebrew,rec.radio.scanner,sci.electronics.design

"Tim Wescott" <tim@wescottnospamdesign.com> wrote in message
news:10gaofq3iuq6q25@corp.supernews.com...
> John Woodgate wrote:
.....
> > Some AM radios for the Swiss market go up to 285 kHz on the LF band.
> > Some beacons can be heard. You can modify an MF radio to receive 250 to
> > 420+ kHz, but you can't get too close to the IF, which may be 450, 455,
> > 459, 468 (+ n x 9 kHz) .... kHz.
>
> I never knew about the 450 + n x 9 business -- do you know why that is so?
>
> --
>
> Tim Wescott
> Wescott Design Services
> http://www.wescottdesign.com

Tim,
Let me take a wild guess that makes sense. You want the local oscillator frequency to be a multiple of 9 KHz (The EU channel spacing) to make it simpler to design the PLL. Seems that 450 would work with both 9 and 10 KHz spacing.

Are they still using the NDB stations? seems kind of redundant with VOR, that has been around for 50 years or so.
Tam

1157. Re: Receive NDB beacons ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-26 20:45:09 UTC
From: "Michael A. Covington" <look@ai.uga.edu.for.address>
Message-ID: <09KdnY1X8oXE8JjcRVn-rg@speedfactory.net>
Source record: 24639
Cross-posted to: alt.radio.scanner,rec.radio.amateur.homebrew,rec.radio.scanner,sci.electronics.design

Yes. Do a web search for 'LOWFER' and you'll find a *lot* of interesting things.

Briefly: My Sony 2010 multiband receiver tunes down that low, but reception is poor. It's much better if I use a longwire antenna _and an antenna matcher_ (inductor and capacitor) to tune to the desired frequency. I can get ZBB (Bimini, Bahamas) from my home in Athens, Georgia.

Longwave radios from Europe will tune part of this band; it's used for broadcasting over there.

1158. Re: Receive NDB beacons ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-26 20:50:45 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <F8eNc.94596$Rf.85244@edtnps84>
Source record: 24641
Cross-posted to: alt.radio.scanner,rec.radio.amateur.homebrew,rec.radio.scanner,sci.electronics.design

Behold, Tam/WB2TT signalled from keyed 4-1000A filament:

> Are they still using the NDB stations? seems kind of redundant with VOR,
> that has been around for 50 years or so. Tam

Yup!

The sun "sneezes" a flare and V/UHF is a gonner! LF is immune.

--
Gregg t3h g33k
"Ratings are for transistors....tubes have guidelines"
http://geek.scorpiorising.ca

1159. Re: UHF oscillator

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-26 20:50:47 UTC
From: xpyttl <xpyttl_NOSPAM@earthling.net>
Message-ID: <10gas4g9qk55g04@corp.supernews.com>
Source record: 24643

"John Miles" <jmiles@pop.removethistomailme.net> wrote in message
news:MPG.1b6efeff791dd0d89896e7@news-central.giganews.com...

> True about the sampling, but note that you can buy many Analog Devices
> PLL and DDS parts from DigiKey now
> (http://dkc3.digikey.com/PDF/T042/0351.pdf). This is a fairly recent
> development.

I noticed that, although the other day when I took a quick peek, they didn't
have anything that I wanted at the time.

> If we could only convince DigiKey to distribute Mini-Circuits parts, it
> would be a true one-stop shopping experience.

That would be nice, wouldn't it. We still would need a source for RF
transistors, though.

..

1160. Re: UHF oscillator

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-26 20:50:48 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <0irag0l9lj59bhe5githoa55gov50mjbb0@4ax.com>
Source record: 24640

On Mon, 26 Jul 2004 12:44:32 -0700, John Miles
<jmiles@pop.removethistomailme.net> wrote:

>In article <10gam469ceq33a2@corp.supernews.com>,
>xpyttl_NOSPAM@earthling.net says...
>> "Ruben Undheim" <saltmakrell@hotmail.com> wrote in message
>> news:410522e8@news.wineasy.se...
>>
>> > Can anybody help me to find a good and easy-to-build schematic for an
>> > UHF-oscillator?
>>
>> Rather than struggling to stabilize an analog oscillator at UHF, you might
>> look at some of the synthesizer chips intended for cell phone use. TI has
>> same gigahertz synthesizers (2050,51,and 52 I think) that could be divided
>> down with a prescaler. With the prescaler you would end up with a square
>> wave, but for a LO that's probably a better deal anyway. They also have
>> some single chip "transmitters" (TRF4400, 4900) which are essentially
>> synthesizers with a little more output. These parts are less than five
>> bucks at DigiKey. Analog Devices also has some nice synthesizer chips up
>> into the UHF range. AD parts are pretty hard to buy, but they are very good
>> about sampling.
>
>True about the sampling, but note that you can buy many Analog Devices
>PLL and DDS parts from DigiKey now
>(http://dkc3.digikey.com/PDF/T042/0351.pdf). This is a fairly recent
>development.
>
>If we could only convince DigiKey to distribute Mini-Circuits parts, it
>would be a true one-stop shopping experience.
>
quite possible, but he requests something like a 101MHz xtal
oscillator and doublers to 404MHz, I believe it is quite too complex

73
JM

J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

1161. Re: UHF oscillator

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-26 20:55:50 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <qdeNc.94662$Rf.5760@edtnps84>
Source record: 24642

Behold, Ruben Undheim signalled from keyed 4-1000A filament:

> Hello!
>
> Can anybody help me to find a good and easy-to-build schematic for an
> UHF-oscillator?
>
> I am going to use it as a LO in a 70cm receiver.
>
> Thank you in advance!

As an alternative to the PLL discussion, try a push-pull 6J6 oscillator.
Drifts more, but no digital crap spewing out of the box neither ;-)

--
Gregg t3h g33k
"Ratings are for transistors....tubes have guidelines"
http://geek.scorpiorising.ca

1162. Re: UHF oscillator

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-26 21:15:27 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <50tag0hs5u24avum7bg9ti7di8qlcta3uq@4ax.com>
Source record: 24644

On Mon, 26 Jul 2004 20:55:50 GMT, Gregg <nospam@unknown.org> wrote:

>Behold, Ruben Undheim signalled from keyed 4-1000A filament:
>
>> Hello!
>>
>> Can anybody help me to find a good and easy-to-build schematic for an
>> UHF-oscillator?
>>
>> I am going to use it as a LO in a 70cm receiver.
>>
suppose you wish to injection-lock it, since voltage-variable diodes
are somewhat too modern, and reactance tubes hasn't so much
capacitance swing?

J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

1163. Re: Receive NDB beacons ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-26 21:15:36 UTC
From: Joerg <notthisjoergsch@removethispacbell.net>
Message-ID: <YveNc.738$6a1.453@newssvr27.news.prodigy.com>
Source record: 24645

Hi Gregg,

>>Are they still using the NDB stations? seems kind of redundant with VOR,
>>that has been around for 50 years or so. Tam
>>
>>
>
>Yup!
>
>The sun "sneezes" a flare and V/UHF is a gonner! LF is immune.
>
>
Sometimes the good old stuff is the best. That's why I still use hemp
and paste on pipe threads and not all this new-fangled stuff that start
to leak the next morning. And my trusty ol' shortwave receiver brings me
the world whenever I want to. It never told me "host connection has
timed out".

> "Ratings are for transistors .... tubes have guidelines"

Tubes in a nicely designed amp sport a dynamic range from here to the
Klondike :-). Some newer FETs can do that as well but there is no
romantic glow in them.

Regards, Joerg

http://www.analogconsultants.com

1164. Re: Receive NDB beacons ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-26 21:42:22 UTC
From: jimp@specsol-spam-sux.com
Message-ID: <ce3trucjm1@mail.specsol.com>
Source record: 24646

In rec.radio.amateur.homebrew Gregg <nospam@unknown.org> wrote:
> Behold, Tam/WB2TT signalled from keyed 4-1000A filament:

> > Are they still using the NDB stations? seems kind of redundant with VOR,
> > that has been around for 50 years or so. Tam

> Yup!

> The sun "sneezes" a flare and V/UHF is a gonner! LF is immune.

How do you come to that conclusion? VOR is direct line of sight.

--
Jim Pennino

Remove -spam-sux to reply.

1165. Re: Receive NDB beacons ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-26 22:13:25 UTC
From: mikea@mikea.ath.cx
Message-ID: <ce3vm5$5lv$4@puck.litech.org>
Source record: 24497
Cross-posted to: alt.radio.scanner,rec.radio.amateur.homebrew,rec.radio.scanner,sci.electronics.design

In <8t2dnX2xb6Nb9pjcRVn-vw@comcast.com> (rec.radio.amateur.homebrew), Tam/WB2TT wrote:

> Are they still using the NDB stations? seems kind of redundant with VOR,
> that has been around for 50 years or so.
> Tam

You bet. OUN is about half a mile from me, on 260 KHz, and very
resistant to solar flares and the like.

--
Mike Andrews
mikea@mikea.ath.cx
Tired old sysadmin

1166. FA: VARIOUS MICS PARTS.....

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-26 22:15:22 UTC
From: Heytubeguy <heytubeguy@worldnet.att.net>
Message-ID: <_nfNc.331227$Gx4.200345@bgtnsc04-news.ops.worldnet.att.net>
Source record: 24498

Additions usually two to three times a week so please check back frequently.

Knob sets, matched GE vernier dials, 833 connectors, ac line filters,ac
rotor control caps, binding posts, '81 and '82 ARRL HB's, '87 Operating
Manual, antique tube shields

Have tubes, radios mostly tube type that appear as well. See at:

http://cgi6.ebay.com/ws/eBayISAPI.dll?ViewSellersOtherItems&userid=heytubeguy&completed=0&
sort=3&since=-1&include=0&page=1&rows=25

Thanks for reading, 73 heytubeguy

1167. Re: Receive NDB beacons ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-27 01:42:55 UTC
From: "Dr. Anton T. Squeegee" <SpammersArePondScum@dev.null>
Message-ID: <MPG.1b6f52f8d72aaa11989773@192.168.42.131>
Source record: 24499
Cross-posted to: alt.radio.scanner,rec.radio.amateur.homebrew,rec.radio.scanner,sci.electronics.design

In article <WvSdnfBdaO5H2JjcRVnyhg@scarlet.biz>, dteney@hotmail.com
says...

> Hello everybody,
> I wonder if anyone has already tried to receive the signal of NDB beacons ?

<snip>

Others have already provided an excellent range of answers, so I
just had to jump in with a nitpick. :-) I speak both as a former pilot
and as a long-time hamateur.

The phrase "NDB Beacons" is redundant. 'NDB' in this context means
'Non-Directional Beacon,' so the correct presentation of the term would
have been "NDB's" or "ND Beacons."

73 de KC7GR

--
Dr. Anton T. Squeegee, Director, Dutch Surrealist Plumbing Institute.
(Known to some as Bruce Lane, ARS KC7GR,
kyrrin (a/t) bluefeathertech[d=o=t]calm -- www.bluefeathertech.com
"If Salvador Dali had owned a computer, would it have been equipped
with surreal ports?"

1168. Re: Receive NDB beacons ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-27 05:13:08 UTC
From: clifto <clifto@clifto.com>
Message-ID: <4s4ht1-1la.ln1@remote.clifto.com>
Source record: 24500
Cross-posted to: alt.radio.scanner,rec.radio.amateur.homebrew,rec.radio.scanner,sci.electronics.design

Dr. Anton T. Squeegee wrote:
> The phrase "NDB Beacons" is redundant. 'NDB' in this context means
> 'Non-Directional Beacon,' so the correct presentation of the term would
> have been "NDB's" or "ND Beacons."

So you're saying NDB is a TLA acronym?

--
Racist Bush Destroys Earth's Magnetic Field
<http://blamebush.typepad.com/blamebush/2004/07/bush_destroys_e.html>

1169. Re: Receive NDB beacons ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-27 06:53:33 UTC
From: johnydeath <johnydeath@lukewarmmail.com>
Message-ID: <4105fbeb$0$6446$cc9e4d1f@news-text.dial.pipex.com>
Source record: 24501
Cross-posted to: alt.radio.scanner,rec.radio.amateur.homebrew,rec.radio.scanner,sci.electronics.design

Dr. Anton T. Squeegee wrote:
> In article <WvSdnfBdaO5H2JjcRVnyhg@scarlet.biz>, dteney@hotmail.com
> says...
>
>
>>Hello everybody,
>>I wonder if anyone has already tried to receive the signal of NDB beacons ?
>
>
> <snip>
>
> Others have already provided an excellent range of answers, so I
> just had to jump in with a nitpick. :-) I speak both as a former pilot
> and as a long-time hamateur.
>
> The phrase "NDB Beacons" is redundant. 'NDB' in this context means
> 'Non-Directional Beacon,' so the correct presentation of the term would
> have been "NDB's" or "ND Beacons."
>
> 73 de KC7GR
>
>

Perhaps its a beacon transmitting information about NDBs - hence an NDB beacon.

But thats not important right now, if you're going to be picky then NDB's is reference to something pertaining to the NDB eg the NDB's code generator had a loose chain.

I remember working on one (20yrs ago) where it was is a full height 19" rack and the bottom unit was indeed a motor with 'sophisticated' cam and chain system where you programmed the actual code to be transmitted by adjusting the stators/rotors. I've not seen one since - I guess its the size of a shoebox now?

73's intentionally mistyped :)

1170. Re: Receive NDB beacons ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-27 07:22:37 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <1pnNc.104142$Rf.74770@edtnps84>
Source record: 24502

Behold, jimp signalled from keyed 4-1000A filament:

> In rec.radio.amateur.homebrew Gregg <nospam@unknown.org> wrote:
>> Behold, Tam/WB2TT signalled from keyed 4-1000A filament:
>
>
>> > Are they still using the NDB stations? seems kind of redundant with
>> > VOR, that has been around for 50 years or so. Tam
>
>> Yup!
>
>> The sun "sneezes" a flare and V/UHF is a gonner! LF is immune.
>
> How do you come to that conclusion? VOR is direct line of sight.
>

I based my conclusion on:

1) FEMA uses LF as a backup and
2) My local 50KW FM powerhouse went from S-30 to S-3 during this latest
sunspot. Whaty will happen to a <100 watt VOR?

--
Gregg t3h g33k
"Ratings are for transistors....tubes have guidelines"
http://geek.scorpiorising.ca

1171. Re: Receive NDB beacons ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-27 07:23:56 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <gqnNc.104159$Rf.41113@edtnps84>
Source record: 24503

Behold, Joerg signalled from keyed 4-1000A filament:

> Hi Gregg,
>
>>>Are they still using the NDB stations? seems kind of redundant with
>>>VOR, that has been around for 50 years or so. Tam
>>>
>>>
>>>
>>Yup!
>>
>>The sun "sneezes" a flare and V/UHF is a gonner! LF is immune.
>>
>>
> Sometimes the good old stuff is the best. That's why I still use hemp
> and paste on pipe threads and not all this new-fangled stuff that start
> to leak the next morning. And my trusty ol' shortwave receiver brings me
> the world whenever I want to. It never told me "host connection has
> timed out".
>
> > "Ratings are for transistors .... tubes have guidelines"
>
> Tubes in a nicely designed amp sport a dynamic range from here to the
> Klondike :-). Some newer FETs can do that as well but there is no
> romantic glow in them.
>
> Regards, Joerg
>
> http://www.analogconsultants.com

Hi Joerg,

Ah, another kindred spirit on the net ;-)

Best wishes,

--
Gregg t3h g33k
"Ratings are for transistors....tubes have guidelines"
http://geek.scorpiorising.ca

1172. Re: Receive NDB beacons ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-27 10:22:32 UTC
From: Pat Cox <peacox@gloryroad.net>
Message-ID: <41062CE8.C19FE88D@gloryroad.net>
Source record: 24504
Cross-posted to: alt.radio.scanner,rec.radio.amateur.homebrew,rec.radio.scanner

I have heard over 800 NDBs in 30 states and 26 foreign countries from my location in central North Carolina over the years. I have used the stock Icom IC-71A and Sony 2010 radios and usually long wire antennas. I have done dxpeditions to the coast of NC and a pinnacle (2000 ft. tall rock, Pilot Mountain) in western NC which has added some new ones in the log from time to time. My expereince with NDBs goes back to the late 60's with a US Navy WWII long wave radio which was a lot of fun but a real "hoss" of a radio. Through the old Prodigy computer system before the wide use of internet I met a hobbyist i California and had a good time comparing notes on what we were both hearing. I hav found over the years that the best time to listen is in the Fall of the year, just before dawn, when the weather begins to change rapidly with the onset of frosts. Of course you must be able to copy CW (Morse code) and that's a lost art. The internet has been a great resource for identifying NDBs and there are several sites with a lot of good information. You might try www.airnav.com. The Lowdown was a useful publication of the pre-internet day and back copies would be an asset to anyone with an interst in NDBs. As an amateur radio operator I have worked over 300 countries and spend most of my time on amateur satellites now but the hunt for a new NDB ranks right up there with some of the best time I have ever spent with the hobby. This has been one of the more interesting strings on this group in some time and it sure would be nice to keep it going with others posting their experiences. pcox

Damien Teney wrote:

> Hello everybody,
> I wonder if anyone has already tried to receive the signal of NDB beacons ?
> These are long-range radio beacons, used by aircrafts for navigation,
> operating in the frequencies from stg like 200 to 500 KHz I think. Their
> signal is AM-modulated with a sound signal of their code (three letters) in
> morse.
>
> It would be an interesting project to build a receiver and ADF for these
> beacons, but I'd like to know if anyone has already tried that.
>
> Thanks for your answers ;-)

1173. Re: Want to make a passive SWL preselector

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-27 12:38:57 UTC
From: remove_ok1sip@atlas.cz
Message-ID: <5f5159fa.0407270438.7c6ba8a2@posting.google.com>
Source record: 24505

Hi,
use SELECT_1.EXE from the superb Reg's page
http://www.btinternet.com/~g4fgq.regp/page3.html#S301"

BR from Ivan OK1SIP

alfa011@prtc.net (Almir) wrote in message
news:<4f9f2736.0407201516.41ed6302@posting.google.com>...
> Hi!
>
> I am interested in making my own SWL preselector..
>
> Anyone knows where I can find information in the web or direct me to
> where I can find the information needed to make one?
>
> Thanks..
> Alvin Mirabal
> WP4IDK

1174. Bilateral amplifiers and bilateral mixers

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-27 12:51:24 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <gkjcg0d5892itnijjlcrtljsc3o4eouvrt@4ax.com>
Source record: 24506

Some time ago it was some request for bilateral amplifiers, perhaps it should have been mentioned that it is also such things as bilateral mixers, see RA3AAE type bilateral harmonic mixer on http://home.online.no/~la8ak/c21.htm

It has been described some good and some wrong ways to make this mixer, but the original info from RA3AAE is clear enough to understand I have used this sort of mixer for simple projects on frequencies between 3.5-144MHz, and it works with simple diodes as 1N4148 for low noise figure as only 7dB (provided it is correctly terminated)

73
Jan-Martin
LA8AK

J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

1175. Re: Want to make a passive SWL preselector

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-27 12:53:23 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <n0kcg0df7q073kh91tsfgp7qdjhdmu48hb@4ax.com>
Source record: 24507

On 27 Jul 2004 05:38:57 -0700, remove_ok1sip@atlas.cz (OK1SIP) wrote:

>Hi,
>use SELECT_1.EXE from the superb Reg's page
>http://www.btinternet.com/~g4fgq.regp/page3.html#S301"
>
>BR from Ivan OK1SIP
>
>alfa011@prtc.net (Almir) wrote in message
news:<4f9f2736.0407201516.41ed6302@posting.google.com>...
>> Hi!
>>
>> I am interested in making my own SWL preselector..
>>
>> Anyone knows where I can find information in the web or direct me to
>> where I can find the information needed to make one?
>>
>> Thanks..
>> Alvin Mirabal
>> WP4IDK

I checked this, but don't understand where the selectivity is, is it a
joke?

J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

1176. Re: UHF oscillator

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-27 13:05:29 UTC
From: Ruben Undheim <saltmakrell@hotmail.com>
Message-ID: <41065319$1@news.wineasy.se>
Source record: 24508

I forgot to mention that I already have some LMX2306 PLL-chips, and the idea was to use one of them together with the oscillator. The oscillator must therefore be voltage controlled with a varicap.
Is the only possibility to make a low-frequency oscillator and multiplicate it up, or is it possible to make a more-or-less stable VCO running directly at 420 MHz?
And should I if necessary make the low-frequency oscillator down in the HF region with several multiplication stages, or is it stable enough to have it in the VHF region followed by only one tripler stage? Any thoughts?

"Ruben Undheim" <saltmakrell@hotmail.com> skrev i melding news:410522e8@news.wineasy.se...
> Hello!
>
> Can anybody help me to find a good and easy-to-build schematic for an
> UHF-oscillator?
>
> I am going to use it as a LO in a 70cm receiver.
>
> Thank you in advance!
>
>
>

1177. Re: UHF oscillator

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-27 13:09:59 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <jskcg0597v9aq10e6rkb89mipoaajskbh5@4ax.com>
Source record: 24509

On 27 Jul 2004 15:05:29 +0200, "Ruben Undheim"
<saltmakrell@hotmail.com> skrev i melding:

>I forgot to mention that I already have some LMX2306 PLL-chips, and the idea
>was to use one of them together with the oscillator. The oscillator must
>therefore be voltage controlled with a varicap.
>Is the only possibility to make a low-frequency oscillator and multiplicate
>it up, or is it possible to make a more-or-less stable VCO running directly
>at 420 MHz?
>And should I if necessary make the low-frequency oscillator down in the HF
>region with several multiplication stages, or is it stable enough to have it
>in the VHF region followed by only one tripler stage? Any thoughts?
>
>
>
>"Ruben Undheim" <saltmakrell@hotmail.com> skrev i melding
>news:410522e8@news.wineasy.se...
>> Hello!
>>
>> Can anybody help me to find a good and easy-to-build schematic for an
>> UHF-oscillator?
>>
>> I am going to use it as a LO in a 70cm receiver.
>>
>> Thank you in advance!
>>
>>
>>
>
what you want to achieve is still not yet known, do you want to cover
a certain frequency range or just one or two frequencies?
Are you a radio ham?

J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

1178. Cancel "Re: UHF oscillator"

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-27 13:14:44 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <p4lcg0121ksdibgco36omc9cp9gv1tf1l9@4ax.com>
Source record: 24510

J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

1179. Re: UHF oscillator

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-27 13:14:44 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <75lcg09tbgh0dmft9q4kdogtblcespug4n@4ax.com>
Source record: 24511

On 27 Jul 2004 15:05:29 +0200, "Ruben Undheim"
<saltmakrell@hotmail.com> skrev i melding:

>I forgot to mention that I already have some LMX2306 PLL-chips, and the idea
>was to use one of them together with the oscillator. The oscillator must
>therefore be voltage controlled with a varicap.
>Is the only possibility to make a low-frequency oscillator and multiplicate
>it up, or is it possible to make a more-or-less stable VCO running directly
>at 420 MHz?
>And should I if necessary make the low-frequency oscillator down in the HF
>region with several multiplication stages, or is it stable enough to have it
>in the VHF region followed by only one tripler stage? Any thoughts?
>
>
>
>"Ruben Undheim" <saltmakrell@hotmail.com> skrev i melding
>news:410522e8@news.wineasy.se...
>> Hello!
>>
>> Can anybody help me to find a good and easy-to-build schematic for an
>> UHF-oscillator?
>>
>> I am going to use it as a LO in a 70cm receiver.
>>
>> Thank you in advance!
>>
>>
>>
>
what you want to achieve is still not yet known, do you want to cover
a certain frequency range or just one or two frequencies?

Are you a radio ham?

It seems that you want to use 10.7MHz IF for your receiver project,
but it is too low, 21.4 would have been a better choice, while I
believe NOKIA used 70MHz for some of the NMT systems, and 21.4MHz as
second for a reason I don't know

J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

1180. Re: Receive NDB beacons ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-27 14:28:42 UTC
From: shoppa@trailing-edge.com
Message-ID: <bec993c8.0407270628.23d1ef29@posting.google.com>
Source record: 24512
Cross-posted to: alt.radio.scanner,rec.radio.amateur.homebrew,rec.radio.scanner,sci.electronics.design

clifto <clifto@clifto.com> wrote in message news:<4s4ht1-1la.ln1@remote.clifto.com>...
> Dr. Anton T. Squeegee wrote:
> > The phrase "NDB Beacons" is redundant. 'NDB' in this context means
> > 'Non-Directional Beacon,' so the correct presentation of the term would
> > have been "NDB's" or "ND Beacons."
>
> So you're saying NDB is a TLA acronym?

Just like "using your PIN number at the ATM machine".

Tim.

1181. Re: Receive NDB beacons ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-27 15:11:03 UTC
From: drwxr-xr-x <bit-bucket@config.com>
Message-ID: <slrncgcs4d.8pp.bit-bucket@walnut.config.com>
Source record: 24513

On Tue, 27 Jul 2004 07:22:37 GMT, Gregg hath writ:

> .... from S-30 to ...

Now _there's_ a signal report you don't often enter in your log...

1182. looking for information on toroidal cores

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-27 15:20:49 UTC
From: larry <larya@rogers.com>
Message-ID: <lpuNc.1$8Qp.0@news04.bloor.is.net.cable.rogers.com>
Source record: 24514

Greetings

I am looking for information on toroidal cores...

I grew up in electronics and amateur radio during the 60's and 70's. Now I am retired and need more information concerning toroidal cores....

I have a bunch of cores and would like to know how they compare with open form coils etc.

Is there a website that teaches you about toroidal cores. How to identify them how to calculate how much wire to wrap for a partical inductance value. Etc...

Larry ve3fxq

1183. Re: Receive NDB beacons ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-27 15:27:10 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <9f-dnUI2_dje6ZvcRVn-uw@comcast.com>
Source record: 24515
Cross-posted to: alt.radio.scanner,rec.radio.amateur.homebrew,rec.radio.scanner,sci.electronics.design

"Mike Andrews" <mikea@mikea.ath.cx> wrote in message
news:ce3vm5$5lv$4@puck.litech.org...
> In <8t2dnX2xb6Nb9pjcRVn-vw@comcast.com> (rec.radio.amateur.homebrew),
Tam/WB2TT wrote:
>
> > Are they still using the NDB stations? seems kind of redundant with VOR,
> > that has been around for 50 years or so.
> > Tam
>
> You bet. OUN is about half a mile from me, on 260 KHz, and very
> resistant to solar flares and the like.
>
> --
> Mike Andrews
> mikea@mikea.ath.cx
> Tired old sysadmin

I took a listen on the Icom 756. Heard about 4 NDBs very weak, and a bunch
of stations that sounded like RTTY.

Tam

1184. Re: UHF oscillator

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-27 15:44:21 UTC
From: Ruben Undheim <saltmakrell@hotmail.com>
Message-ID: <41067855$1@news.wineasy.se>
Source record: 24517

>
> Are you a radio ham?

Not jet, but I am going to take the exam in September. If I am not allowed to write anything on this messageboard without lisence, you must tell me! ;-)

> It seems that you want to use 10.7MHz IF for your receiver project,
> but it is too low, 21.4 would have been a better choice, while I
> believe NOKIA used 70MHz for some of the NMT systems, and 21.4MHz as
> second for a reason I don't know

I have already made one receiver for the 2m band by having a VCO connected to
a SA612 to get a 10,7MHz IF, followed by a SA615 to get a 455KHz IF.
For a few days ago I found out that I wanted to receive the 70cm band too (430-440MHz), and therefore just removed some turns from the coil in the VCO, and put a
3,3pf capacitor in series with the trimm cap. (a desperate action!) To my disappointment that stopped the whole oscillation, and I therefore understood that it was not the correct way to make a UHF oscillator.
I knew that it was possible to multplicate a low frequency and then get a high frequency, but this subject was some cryptically to me, and therefore searched for help here.

What I want to know now is how it is recommend that the VCO is built up. How many multiplication steps?, and how these multiplication steps should be designed?
Shortly spoken: What is the best solution when making it analog together with a LMX2306?

The plan is to use the same configuration as with the 2m receiver: SA612 - 10.7MHzIF - SA615 - 455KHzIF - Sound. Will the image frequency slip through too easy with a 10.7 IF. I do not demand perfection yet.... I just want it to work. So, I can put in a 21.4MHz IF later, if it becomes necessary. Now, I only have 10.7MHz filters, and want to go for that.

I am sorry for bad explanation, but I hope you understand some of it!

Thank you

Ruben

1185. Re: Receive NDB beacons ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-27 15:47:39 UTC
From: "Michael A. Covington" <look@ai.uga.edu.for.address>
Message-ID: <T_KdneU6idG95JvcRVn-hg@speedfactory.net>
Source record: 24518
Cross-posted to: alt.radio.scanner,rec.radio.amateur.homebrew,rec.radio.scanner,sci.electronics.design

> > > The phrase "NDB Beacons" is redundant. 'NDB' in this context
means
> > > 'Non-Directional Beacon,' so the correct presentation of the term
would
> > > have been "NDB's" or "ND Beacons."
> >
> > So you're saying NDB is a TLA acronym?
>
> Just like "using your PIN number at the ATM machine".

Now that people say "ATM machine" we should abbreviate it "ATMM."

Then they can say "ATMM machine"...

1186. Re: looking for information on toroidal cores

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-27 15:49:47 UTC
From: John Popelish <jpopelish@rica.net>
Message-ID: <4106799B.94F3EE24@rica.net>
Source record: 24516

larry wrote:
>
> Greetings
>
> I am looking for information on toroidal cores...
>
> I grew up in electronics and amateur radio during the 60's and 70's. Now I
> am retired and need more information concerning toroidal cores....
>
> I have a bunch of cores and would like to know how they compare with open
> form coils etc.
>
> Is there a website that teaches you about toroidal cores. How to identify
> them how to calculate how much wire to wrap for a partical inductance value.
> Etc...
>
> Larry ve3fxq

http://www.catchnet.com.au/~rjandusimports/tut_4.html
http://xanadu.ece.ucsb.edu/~long/ece145b/INDUCTOR_w02.pdf
http://www.electronicsee.com/Electronics/Components/Coils.htm
http://www.mag-inc.com/pdf/Inductor%20Cores-Material%20and%20Shape%20Choices%20MAS%20PCIM%20Europe%20Magazine%207-2-04.pdf
--
John Popelish

1187. Re: UHF oscillator

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-27 16:44:34 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <MPG.1b7026521c428fd19896e8@news-central.giganews.com>
Source record: 24519

In article <41065319$1@news.wineasy.se>, saltmakrell@hotmail.com says...
> I forgot to mention that I already have some LMX2306 PLL-chips, and the idea
> was to use one of them together with the oscillator. The oscillator must
> therefore be voltage controlled with a varicap.
> Is the only possibility to make a low-frequency oscillator and multiplicate
> it up, or is it possible to make a more-or-less stable VCO running directly
> at 420 MHz?
> And should I if necessary make the low-frequency oscillator down in the HF
> region with several multiplication stages, or is it stable enough to have it
> in the VHF region followed by only one tripler stage? Any thoughts?
>
>

The LMX2306 should be a good choice. If you don't feel like building
your own VCO, you can always get one from Mini-Circuits for $15-$25 that
will cover the range you need.

I don't think it's a good idea to try to homebrew a VCO for this range
unless you have access to a spectrum analyzer to characterize its noise
performance. Building a decent VCO is one of those 'educational'
endeavors that's full of surprises. You will want to choose a PLL loop
bandwidth based on the VCO's noise profile, and that can be tough if you
can't see what you're doing.

With a Mini-Circuits VCO, you can just plug the specs into the EasyPLL
simulator on National's site. That may take some of the fun out of it,
but it all depends on where you want to spend your R&D time.

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

1188. Re: looking for information on toroidal cores

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-27 16:48:38 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <ce6116$g2q$1@sparta.btinternet.com>
Source record: 24520

You may find program TOROID educational.

Download in a few seconds from website below and run immediately.

.....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
.....

"larry" <larya@rogers.com> wrote in message
news:lpuNc.1$8Qp.0@news04.bloor.is.net.cable.rogers.com...
> Greetings
>
> I am looking for information on toroidal cores...
>
> I grew up in electronics and amateur radio during the 60's and 70's. Now
I
> am retired and need more information concerning toroidal cores....
>
> I have a bunch of cores and would like to know how they compare with open
> form coils etc.
>
> Is there a website that teaches you about toroidal cores. How to
identify
> them how to calculate how much wire to wrap for a partical inductance
value.
> Etc...
>
> Larry ve3fxq
>
>

1189. WTB button for alinco dr599

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-27 17:19:27 UTC
From: mac <mac_dx@tnij.poczta.onet.pl>
Message-ID: <ce62r6emo1@inews.gazeta.pl>
Source record: 24521

I lost lower left button (vfo/ch.sp) from my alinco dr599. May be
someone has it in "trashbox". No reply from alinco.

Any help or ideas?

73
MAc
sp9mrn

1190. Re: UHF oscillator

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-27 17:49:17 UTC
From: xpyttl <xpyttl_NOSPAM@earthling.net>
Message-ID: <10gd5d0fjs7n1dd@corp.supernews.com>
Source record: 24522

"Ruben Undheim" <saltmakrell@hotmail.com> wrote in message
news:41067855$1@news.wineasy.se...

> > It seems that you want to use 10.7MHz IF for your receiver project,
> > but it is too low, 21.4 would have been a better choice, while I

Ruben ... by way of explanation ...

Generally, you would like your received frequency, your local oscillator, and your IF about equally spaced because this makes filtering easy. In practice, we gravitate to a few common IF frequencies because we can get parts for them. But, if any pair from those three ends up "close", we have trouble. In your case, you want a 430 MHz LO to generate a 10 MHz IF from a 440 MHz signal. 430 is terribly close to 440 so it's not such a good plan. It's tough to get tight filtering at high frequencies, and at best, you will hear 420 almost as well as 440, if you can hear 440 at all over the racket of the LO.

VCOs are tough to get stable, even at HF. It's pretty reasonable at 2 MHz, hard at 10 MHz, and almost impossible at 100 MHz. Multiplying isn't much of an answer, either, because you multiply the drift, too. Now, presumably you are building an FM receiver, and that at least gives you a little breathing space. The wide bandwidth and FM capture effect make it a lot more forgiving than, say, CW. But building an analog oscillator for those frequencies that is stable is really hard.

When amateurs first started heavily using 2 meters, the LO was either a crystal, which you switched to change frequencies, or a synthesizer that mixed signals from a collection of crystal oscillators. That gave a nice, stable signal. Crystal oscillators are notoriously stable, and are very useable even when multiplied 8 or 12 times. More recently, Direct Digital Synthesis has become the norm in VHF and UHF gear. With DDS, a processor is driven by a very high frequency crystal oscillator. The processor then reads a sine wave table and outputs to a digital to analog converter. This creates a stepped sine wave, but if the oscillator is a lot higher in frequency than the synthesizer's output, the approximation is pretty good. Further, if the oscillator's frequency isn't harmonically related to the output frequency, it can be quite easy to filter, resulting in a very good sine wave, with crystal stability. However, in the case of a local oscillator for a 612, you don't really need a sine wave, in many ways, a square wave is better. That's why doing something like a gigahertz synthesizer stepped down through a prescaler is a possibliity.

As you have already found out at 2 meters, building an analog oscillator at high frequencies takes a lot of fiddling around. The higher in frequency you go, the more fiddling around. Worse, as you get much above 2 meters,

circuit layout and construction techniques play a huge part, as the stray capacitance between components become at least as large as the intended capacitances in your tuned ciruits. Lead inductances also become significant. This is probably why you couldn't make your modified oscillator work - there are L's and C's all over that you can't see!

The first time you do it, DDS is no cake walk, either. There are inexpensive chips that do the whole job for you, but there is a whole new learning curve. These chips need a control word loaded into them, and job one is understanding how you get from the frequency you want to that control word. Typically the control word is loaded serially, which means that your design probably has to include some sort of microprocessor to calculate what to load and then serialize it. So while the circuitry is very simple and non-critical, the whole thought process is different and, although it is dirt simple once you've done it the first time, that first time is sort of a bear.

So it does look like you have a number of design decisions. You will need a different first IF, perhaps using your 10.7 as a second IF. Heck, maybe you choose 146 as the first IF, and use your existing 2 meter model as the IF strip. Next, are you going to spend a bunch of time on stabilizing the LO -- even if it's 300 MHz it's still no easy task -- or will you choose another path, maybe mixing crystals or a DDS. One real possibility is to build a VCO at some reasonable frequency and mix it with a crystal oscillator to get up around 300 MHz. And although DDS is very simple the second time, the task of learning how to do it will probably take as much time as stabilizing that analog VFO, although you will save a bunch of time on the NEXT project.

Lots to decide ... I hope this helps a little

..

1191. Re: UHF oscillator

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-27 18:02:35 UTC
From: et472@FreeNet.Carleton.CA
Message-ID: <ce65br$j2i$1@freenet9.carleton.ca>
Source record: 24523

"xpyttl" (xpyttl_NOSPAM@earthling.net) writes:

> When amateurs first started heavily using 2 meters, the LO was either a
> crystal, which you switched to change frequencies, or a synthesizer that
> mixed signals from a collection of crystal oscillators. That gave a nice,
> stable signal. Crystal oscillators are notoriously stable, and are very
> useable even when multiplied 8 or 12 times.

Of course, before channelized operation on VHF came along, the solution
for stable operation was a converter ahead of an existing converter.
An RF stage, the mixer, and a crystal controlled oscillator. The
receiver was tuneable, while the much higher in frequency oscillator
in the converter was crystal controlled. Pick the right frequency for
the output of the converter, and it helped with image rejection issues.
And of course, it was simpler to build separate converters for eachof
the bands than build a whole receiver for each single band.

Michael VE2BVW

1192. Re: Receive NDB beacons ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-27 18:52:51 UTC
From: dplatt@radagast.org
Message-ID: <10gd9437aq2qq64@corp.supernews.com>
Source record: 24524

>> .... from S-30 to ...
>
>Now _there's_ a signal report you don't often enter in your log...

True... most of us are too busy running away from the electric arcs
and dodging the ball lightning :-)

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

1193. Re: UHF oscillator

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-27 20:08:16 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <r2ddg0hg07h29apl50ck8aku6bvmhtg0g6@4ax.com>
Source record: 24525

On 27 Jul 2004 18:02:35 GMT, et472@FreeNet.Carleton.CA (Michael Black)
wrote:

>"xpyttl" (xpyttl_NOSPAM@earthling.net) writes:
>
>> When amateurs first started heavily using 2 meters, the LO was either a
>> crystal, which you switched to change frequencies, or a synthesizer that
>> mixed signals from a collection of crystal oscillators. That gave a nice,
>> stable signal. Crystal oscillators are notoriously stable, and are very
>> useable even when multiplied 8 or 12 times.
>
>Of course, before channelized operation on VHF came along, the solution
>for stable operation was a converter ahead of an existing converter.
>An RF stage, the mixer, and a crystal controlled oscillator. The
>receiver was tuneable, while the much higher in frequency oscillator
>in the converter was crystal controlled. Pick the right frequency for
>the output of the converter, and it helped with image rejection issues.
>And of course, it was simpler to build separate converters for eachof
>the bands than build a whole receiver for each single band.
>
> Michael VE2BVW
>
After all, it seems that he wish to build a receiver - not a converter
- to cover 433-438MHz band, possibly somewhat lower for listening to
FM signals. The use of MiniCircuit VCO is a good idea, and it might be
stable enough to listening without the PLL, while it is somewhat
troublesome to tune. So he could build the PLL after having the
receiver going.

But I would recommend another first IF with a roofing filter, it may
not need to be very selective, perhaps a simple 45MHz bandpassfilter

Since the FM segment is somewhat lower here than elsewhere it
simplifies the construction, and he need not receive any local traffic
from the other side of the Atlantic ocean. Believe repeater input in
Germany is 430-431MHz, but perhaps not so interesting to listen to the
few times in a year you could hear some stations

73 jm

J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

1194. Re: Receive NDB beacons ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-27 22:48:16 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <QYANc.122214$eO.80083@edtnps89>
Source record: 24526
Cross-posted to: alt.radio.scanner,rec.radio.amateur.homebrew,rec.radio.scanner

Behold, Pat Cox signalled from keyed 4-1000A filament:

> I have heard over 800 NDBs in 30 states and 26 foreign countries from my
> location in central North Carolina over the years.

j00 r t3h g0d! :-o

<bows>

--
Gregg t3h g33k
"Ratings are for transistors....tubes have guidelines"
http://geek.scorpiorising.ca

1195. Re: Receive NDB beacons ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-27 23:02:18 UTC
From: Ken Scharf <wa2mzeNOTTHIS@bellsouth.net>
Message-ID: <raBNc.21912$%S4.6681@bignews1.bellsouth.net>
Source record: 24527
Cross-posted to: alt.radio.scanner,rec.radio.amateur.homebrew,rec.radio.scanner,sci.electronics.design

Damien Teney wrote:
> Hello everybody,
> I wonder if anyone has already tried to receive the signal of NDB beacons ?
> These are long-range radio beacons, used by aircrafts for navigation,
> operating in the frequencies from stg like 200 to 500 KHz I think. Their
> signal is AM-modulated with a sound signal of their code (three letters) in
> morse.
>
> It would be an interesting project to build a receiver and ADF for these
> beacons, but I'd like to know if anyone has already tried that.
>
> Thanks for your answers ;-)
>
>
Any BC453 receivers left in those junk boxes? I have a BC1206 that
hasn't been converted, if anybody really wants it we can haggle.
(covers 200-400khz, runs off 28vdc all loktal tubes with 28v on the
plates!).

You can try putting padder caps in parallel with the tunning cap in
an AA5 and re-align it to cover part of the 200-400khz band. I
tried that once and was able to pick up a close by NDB. Hint:
go down to the airport pilot shop and pick up a sectional chart. The
NDB's are listed on the chart, where they are located and their call
signs and frequencies. This will give you an idea what you can pick up.

1196. Re: FREE QST magazines

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-27 23:43:48 UTC
From: Bob P <nospam@nospam.end>
Message-ID: <UMBNc.44006$eH1.20472891@newssvr28.news.prodigy.com>
Source record: 24529
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew,rec.radio.swap

They are gone, thanks for looking.

"Bob P" <nospam@nospam.end> wrote in message
news:O8WLc.2990$4L7.1358@newssvr33.news.prodigy.com...
> 9 years worth of 1994 >> 2003, mostly complete and in good shape
>
> Packed in two boxes. I am located just south of Detroit Michigan in Allen
> Park.
>
> (don't reply to this post, it won't work)
>
> Send to: kb8tl AT yahoo DOT com
>
> Bob
>
>
>

1197. Re: Receive NDB beacons ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-27 23:44:55 UTC
From: Dave Bethke <dbethke@houston.rr.com>
Message-ID: <XNBNc.29797$WP1.20417@fe1.texas.rr.com>
Source record: 24528
Cross-posted to: alt.radio.scanner,rec.radio.amateur.homebrew,rec.radio.scanner,sci.electronics.design

"Tam/WB2TT" <t-tammaru@c0mca$t.net>

> Are they still using the NDB stations? seems kind of redundant with VOR,
> that has been around for 50 years or so.

Yes, but I haven't heard of any new ones recently. They were relatively cheap to install (at least the ground equipment), but now new installations go toward GPS approaches which require no ground equipment and are more accurate. Still, the old NDB approaches work and are common especially at smaller airports.

--
Dave - PPSEL-IR/N5DB

1198. FS: tubes, a LOT of tubes

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-28 00:06:23 UTC
From: Bob P <nospam@nospam.end>
Message-ID: <36CNc.44007$eH1.20476708@newssvr28.news.prodigy.com>
Source record: 24531
Cross-posted to: rec.antiques.radio+phono,rec.audio.tubes,rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew,rec.radio.shortwave,rec.radio.swap

For sale, PICKUP ONLY, a large! collection of vacuum tubes. NOS, used, not so used,
from 0A2 >> 117Z, 1000 maybe 2000, don't know for sure but a lot. Most are in boxes and alphabetically arranged in about a dozen, cut down Xerox paper boxes. Total weight maybe 200 pounds. I am keeping the "high value" stuff for now (12AX7, 6L6xx, 1L6, sweep tubes) those ebay-able types are not included. I am asking $300 for the whole lot. I'll try to take some pictures and post them this weekend.
Conditions of sale:
1) You must pick up, I will NOT ship and you must take them all. We are moving and I don't want to move them again.
2) Cash only.

I am located just south of Detroit Michigan, in Allen Park.
email to: KB8TL at YAHOO dot COM
Bob
(Don't reply to this message, it is spam busted.)

1199. Re: looking for information on toroidal cores

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-28 00:07:12 UTC
From: Dino Papas <kl0s@cox.net>
Message-ID: <kl0s-71CE54.20071227072004@news.east.cox.net>
Source record: 24530

In article <ce6116$g2q$1@sparta.btinternet.com>,
"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote:

> You may find program TOROID educational.
>
> Download in a few seconds from website below and run immediately.
> ----
> ....
> Regards from Reg, G4FGQ
> For Free Radio Design Software go to
> http://www.btinternet.com/~g4fgq.regp
> ....
>
> "larry" <larya@rogers.com> wrote in message
> news:lpuNc.1$8Qp.0@news04.bloor.is.net.cable.rogers.com...
> > Greetings
> >
> > I am looking for information on toroidal cores...
> >
> > I grew up in electronics and amateur radio during the 60's and 70's. Now
> I
> > am retired and need more information concerning toroidal cores....
> >
> > I have a bunch of cores and would like to know how they compare with open
> > form coils etc.
> >
> > Is there a website that teaches you about toroidal cores. How to
> identify
> > them how to calculate how much wire to wrap for a partical inductance
> value.
> > Etc...
> >
> > Larry ve3fxq
> >
> >

Larry -- MFJ has a book out by Doug DeMaw W1FB that includes some good
stuff on torroids. The book is:

Ferromagnetic-Core Design and Application Book

MFJ-3506 $19.95

Dino KLS/4

1200. Re: Receive NDB beacons ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-28 02:31:18 UTC
From: Dave VanHorn <dvanhorn@cedar.net>
Message-ID: <IOCdnU6zKrh5kprcRVn-uA@comcast.com>
Source record: 24532
Cross-posted to: alt.radio.scanner,rec.radio.amateur.homebrew,rec.radio.scanner,sci.electronics.design

> Yes, but I haven't heard of any new ones recently. They were relatively
> cheap to install (at least the ground equipment), but now new
installations
> go toward GPS approaches which require no ground equipment and are more
> accurate. Still, the old NDB approaches work and are common especially at
> smaller airports.

Absolutely they are still in use. A friend of mine makes a living
maintaining them in the midwest.

1201. Re: looking for information on toroidal cores

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-28 06:56:07 UTC
From: John Hague <john.hague@philips.com>
Message-ID: <opsbt5jtn6aito4q@news-proxy.pgb.philips.com>
Source record: 24533

>> "larry" <larya@rogers.com> wrote in message
>> news:lpuNc.1$8Qp.0@news04.bloor.is.net.cable.rogers.com...
>> > Greetings
>> >
>> > I am looking for information on toroidal cores...
>> >
>> > I grew up in electronics and amateur radio during the 60's and 70's.
>> Now
>> I
>> > am retired and need more information concerning toroidal cores....
>> >
>> > I have a bunch of cores and would like to know how they compare with
>> open
>> > form coils etc.
>> >
>> > Is there a website that teaches you about toroidal cores. How to
>> identify
>> > them how to calculate how much wire to wrap for a partical inductance
>> value.
>> > Etc...
>> >
>> > Larry ve3fxq
>> >
>> >

I've used the program on the following site many times for calculating the number of turns, etc for the Amidon range of toroids and it gives good results.

http://www.kitsandparts.com/tcalc.html

Best 73

John, G4GOY

1202. Re: FS: tubes, a LOT of tubes

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-28 07:22:19 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <LuINc.73160$iw3.22443@clgrps13>
Source record: 24534
Cross-posted to: rec.antiques.radio+phono,rec.audio.tubes,rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew,rec.radio.shortwave,rec.radio.swap

How many groups did you crosspost this to? Spammer!

$300? F*ck you!

I buy lots of 1,500 to 2,000 tubes for $35 CAD *including* the "high value" ones.

Don't bother replying - I replied only to warn others of your thievery!

Plonked and killfiled!!

--
Gregg t3h g33k
"Ratings are for transistors....tubes have guidelines"
http://geek.scorpiorising.ca

1203. Re: looking for information on toroidal cores

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-28 08:34:46 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <fO0ruYImU2BBFAkR@ifwtech.co.uk>
Source record: 24535

John Hague wrote:
>>> "larry" <larya@rogers.com> wrote in message
>>> news:lpuNc.1$8Qp.0@news04.bloor.is.net.cable.rogers.com...
>>> > Greetings
>>> >
>>> > I am looking for information on toroidal cores...
>>> >
>>> > I grew up in electronics and amateur radio during the 60's and
>>> >70's.
>>> Now
>>> I
>>> > am retired and need more information concerning toroidal cores....
>>> >
>>> > I have a bunch of cores and would like to know how they compare
>>> >with
>>> open
>>> > form coils etc.
>>> >
>>> > Is there a website that teaches you about toroidal cores. How to
>>> identify
>>> > them how to calculate how much wire to wrap for a partical inductance
>>> value.
>>> > Etc...
>>> >
>>> > Larry ve3fxq
>>> >
>>> >
>
>I've used the program on the following site many times for calculating
>the number of turns, etc for the Amidon range of toroids and it gives
>good results.
>
>http://www.kitsandparts.com/tcalc.html
>

There is also DL5SWB's toroidal core calculator which contains a lot of
built-in data for both US and European cores:
http://www.dl5swb.de/html/mini_ring_core_calculator.htm
(new site with faster links)

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

1204. Re: UHF oscillator

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-28 11:59:58 UTC
From: Ruben Undheim <saltmakrell@hotmail.com>
Message-ID: <4107953e$1@news.wineasy.se>
Source record: 24536

Hello!

Thank you all of you for the valuable help you have given me!

I became some curious about these DDS-circuits. I have read something about the AD9835. That one can generate sinewaves up to 50MHz, but it seems like you write that some DDS circuits can make much higher frequencies. Is that right?.. or do you just have to multiplicate those frequencies from below 50MHz up to the frequencies you want? Can you give me some examples of recommended DDS-circuits that are capable of making UHF frequencies?

Thank you

Ruben

1205. Stability of huff & puff.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-28 12:16:18 UTC
From: Richard <nearlynews_email@ntlworld.com>
Message-ID: <2mpjmmFpjh4bU1@uni-berlin.de>
Source record: 24537

Anyone have an educated guess as to what frequency stability ought to be acheivable with huff and puff stabilzation technique for a 2.0-2.5Mhz solid state oscillator? I'm thinking of making a non directional beacon RX with IF bandwidth of 20Hz.

1206. Re: Stability of huff & puff.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-28 12:49:33 UTC
From: Richard <nearlynews_email@ntlworld.com>
Message-ID: <2mplkqFpsab8U1@uni-berlin.de>
Source record: 24538

"Richard" <nearlynews_email@ntlworld.com> wrote in message
news:2mpjmmFpjh4bU1@uni-berlin.de...
> Anyone have an educated guess as to what frequency stability ought to be
> acheivable with huff and puff stabilzation technique for a 2.0-2.5Mhz
solid
> state oscillator? I'm thinking of making a non directional beacon RX with
> IF bandwidth of 20Hz.

Gosh, I don't even know if it's possible to adequately tune the oscillator
from 2.00 - 2.50 Mhz using a variable
capacitor, when the bandwidth of the Rx is only 20Hz. I'd need a good slow
motion drive I think. I have an Eddystone 898 dial.

1207. Re: Stability of huff & puff.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-28 14:07:31 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10gfcoltol36q96@corp.supernews.com>
Source record: 24539

Richard wrote:

> Anyone have an educated guess as to what frequency stability ought to be
> acheivable with huff and puff stabilzation technique for a 2.0-2.5Mhz solid
> state oscillator? I'm thinking of making a non directional beacon RX with
> IF bandwidth of 20Hz.
>

Huff & Puff stabilization? I haven't heard of it -- please clarify.

Why not use a DDS?

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

1208. Re: UHF oscillator

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-28 14:09:55 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10gfct5b2upe203@corp.supernews.com>
Source record: 24540

Ruben Undheim wrote:

> Hello!
>
> Thank you all of you for the valuable help you have given me!
>
> I became some curious about these DDS-circuits. I have read something about
> the AD9835. That one can generate sinewaves up to 50MHz, but it seems like
> you write that some DDS circuits can make much higher frequencies. Is that
> right?.. or do you just have to multiplicate those frequencies from below
> 50MHz up to the frequencies you want? Can you give me some examples of
> recommended DDS-circuits that are capable of making UHF frequencies?
>
> Thank you
>
> Ruben
>
>

The DDS produces useful signals up to about 1/4 to 1/3 of the clock rate (theoretically up to 1/2, but filtering gets difficult). ADI makes DDS's with a 300MHz clock rate.

You would want to mix the DDS output with a crystal-generated reference, and take the sum or difference as your LO.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

1209. Re: Receive NDB beacons ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-28 14:19:18 UTC
From: Richard <nearlynews_email@ntlworld.com>
Message-ID: <2mpqt4FpbcrqU1@uni-berlin.de>
Source record: 24541
Cross-posted to: alt.radio.scanner,rec.radio.amateur.homebrew,rec.radio.scanner,sci.electronics.design

"Damien Teney" <dteney@hotmail.com> wrote in message
news:WvSdnfBdaO5H2JjcRVnyhg@scarlet.biz...
> Hello everybody,
> I wonder if anyone has already tried to receive the signal of NDB beacons
?
> These are long-range radio beacons, used by aircrafts for navigation,
> operating in the frequencies from stg like 200 to 500 KHz I think. Their
> signal is AM-modulated with a sound signal of their code (three letters)
in
> morse.
>
> It would be an interesting project to build a receiver and ADF for these
> beacons, but I'd like to know if anyone has already tried that.
>
> Thanks for your answers ;-)
>

I've just started an interest in NDB DXing.

There is a good list you can join.

Go to:

http://www.beaconworld.org.uk/info.htm

Download the welome pack and then open up the FAQ. That tells you how to
join the list.

I've got a circuit for a NDB RX if you want to look at it. It's in PDF
format.

Other links I found.

http://www.altair.org/lowfer.htm
http://www.qru.de./#operation
http://www.picks.force9.co.uk/ngy.htm
http://www.provcomm.net/pages/joe/introvlf.htm
http://www.qsl.net/sv1xv/lw.htm
http://www.kilkeel7.freeserve.co.uk/
http://www.m0wye.thersgb.net/LF.HTM
http://www.spaceweather.com/glossary/inspire.html
http://nowindows.net/www.nickbeee.uklinux.net/navaids/index.htm
http://mail.beaconworld.org.uk/mailman/listinfo/ndblist_beaconworld.org.uk
http://lwca.org/library/articles/kh6sr/index.htm
http://homepages.force9.net/picks/lfsigs.htm
http://www.isd.net/~ki0le/pages/sounds.htm

http://www.acay.com.au/~willt/lhi/ndb.html
http://www.ringsurf.com/netring?ring=Beacons;action=listï¿½ï¿½
http://home.online.no/~la8ak/L1.htm
http://www.qsl.net/vk5br/VLFLFRx.htm
http://www4.tpgi.com.au/users/ldbutler/ActiveLoopConverter.htm
http://members.lycos.nl/Aren/id43.htm
http://www4.tpgi.com.au/users/ldbutler/LFNoiseCancel.htm
http://technology.fanshawec.ca/eltn124/leeloop.htm
http://www4.tpgi.com.au/users/ldbutler/NoiseBlank.htm
http://www4.tpgi.com.au/users/ldbutler/VLF-LFLoopAerial.htm
http://www.lfengineering.com/products.htm
http://www.nautel.com/products/index.php?group=7
http://www.qru.de/MV61.htm
http://www.germansurplus.de/
http://www.qru.de/selective%20level%20meters.html
http://www.mb-radio.co.uk/frames/test/misc/misc.html
http://www.eilers-electronic.com/seiten/a_v_r_meter/mv_61/mv_61.htm
http://www.gatewaylinks.com/NDBLOG/home.htm
http://home4.swipnet.se/~w-41522/ndb/ndbphoto.html
http://nowindows.net/www.nickbeee.uklinux.net/navaids/ndblist.htm
http://www.lwca.org/sitepage/lfutil/index.htm
http://www.lwca.org/index070404final.htm
http://beaconworld.org.uk/beaconlinks.htm
http://beaconworld.org.uk/download.htm
http://www.beaconworld.org.uk/info.htm
http://beaconworld.org.uk/wavs.htm

No doubt there are more.

1210. Re: Stability of huff & puff.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-28 14:24:49 UTC
From: Richard <nearlynews_email@ntlworld.com>
Message-ID: <2mpr7gFpcivhU1@uni-berlin.de>
Source record: 24542

"Tim Wescott" <tim@wescottnospamdesign.com> wrote in message
news:10gfcoltol36q96@corp.supernews.com...
> Richard wrote:
>
> > Anyone have an educated guess as to what frequency stability ought to be
> > acheivable with huff and puff stabilzation technique for a 2.0-2.5Mhz
solid
> > state oscillator? I'm thinking of making a non directional beacon RX
with
> > IF bandwidth of 20Hz.
> >
>
> Huff & Puff stabilization? I haven't heard of it -- please clarify.

http://home.wanadoo.nl/cmulder/ksbstabi.htm

> Why not use a DDS?

Thought there might be a problem with harminics.

1211. Re: Receive NDB beacons ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-28 15:08:34 UTC
From: Damien Teney <dteney@hotmail.com>
Message-ID: <adSdnePTA_XvXJrcRVnyig@scarlet.biz>
Source record: 24543
Cross-posted to: alt.radio.scanner,rec.radio.amateur.homebrew,rec.radio.scanner,sci.electronics.design

Cool ! Thanks for these links, I didn't know there were so many people who where interested with NDB's. Where can I get the NDB RX circuit you're talking about ?

"Richard" <nearlynews_email@ntlworld.com> a crit dans le message de news: 2mpqt4FpbcrqU1@uni-berlin.de...
>
> I've just started an interest in NDB DXing.
>
> There is a good list you can join.
>
> Go to:
>
> http://www.beaconworld.org.uk/info.htm
>
> Download the welome pack and then open up the FAQ. That tells you how to
> join the list.
>
> I've got a circuit for a NDB RX if you want to look at it. It's in PDF
> format.
>
> Other links I found.
>
> http://www.altair.org/lowfer.htm
> http://www.qru.de./#operation
> http://www.picks.force9.co.uk/ngy.htm
> http://www.provcomm.net/pages/joe/introvlf.htm
> http://www.qsl.net/sv1xv/lw.htm
> http://www.kilkeel7.freeserve.co.uk/
> http://www.m0wye.thersgb.net/LF.HTM
> http://www.spaceweather.com/glossary/inspire.html
> http://nowindows.net/www.nickbeee.uklinux.net/navaids/index.htm
> http://mail.beaconworld.org.uk/mailman/listinfo/ndblist_beaconworld.org.uk
> http://lwca.org/library/articles/kh6sr/index.htm
> http://homepages.force9.net/picks/lfsigs.htm
> http://www.isd.net/~ki0le/pages/sounds.htm
> http://www.acay.com.au/~willt/lhi/ndb.html
> http://www.ringsurf.com/netring?ring=Beacons;action=list
> http://home.online.no/~la8ak/L1.htm
> http://www.qsl.net/vk5br/VLFLFRx.htm
> http://www4.tpgi.com.au/users/ldbutler/ActiveLoopConverter.htm
> http://members.lycos.nl/Aren/id43.htm
> http://www4.tpgi.com.au/users/ldbutler/LFNoiseCancel.htm

> http://technology.fanshawec.ca/eltn124/leeloop.htm
> http://www4.tpgi.com.au/users/ldbutler/NoiseBlank.htm
> http://www4.tpgi.com.au/users/ldbutler/VLF-LFLoopAerial.htm
> http://www.lfengineering.com/products.htm
> http://www.nautel.com/products/index.php?group=7
> http://www.qru.de/MV61.htm
> http://www.germansurplus.de/
> http://www.qru.de/selective%20level%20meters.html
> http://www.mb-radio.co.uk/frames/test/misc/misc.html
> http://www.eilers-electronic.com/seiten/a_v_r_meter/mv_61/mv_61.htm
> http://www.gatewaylinks.com/NDBLOG/home.htm
> http://home4.swipnet.se/~w-41522/ndb/ndbphoto.html
> http://nowindows.net/www.nickbeee.uklinux.net/navaids/ndblist.htm
> http://www.lwca.org/sitepage/lfutil/index.htm
> http://www.lwca.org/index070404final.htm
> http://beaconworld.org.uk/beaconlinks.htm
> http://beaconworld.org.uk/download.htm
> http://www.beaconworld.org.uk/info.htm
> http://beaconworld.org.uk/wavs.htm
>
> No doubt there are more.
>

1212. Re: Stability of huff & puff.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-28 15:13:40 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10gfgkmp5c5fu65@corp.supernews.com>
Source record: 24544

Richard wrote:

> "Tim Wescott" <tim@wescottnospamdesign.com> wrote in message
> news:10gfcoltol36q96@corp.supernews.com...
>
>>Richard wrote:
>>
>>
>>>Anyone have an educated guess as to what frequency stability ought to be
>>>acheivable with huff and puff stabilzation technique for a 2.0-2.5Mhz
>
> solid
>
>>>state oscillator? I'm thinking of making a non directional beacon RX
>
> with
>
>>>IF bandwidth of 20Hz.
>>>
>>
>>Huff & Puff stabilization? I haven't heard of it -- please clarify.
>
>
> http://home.wanadoo.nl/cmulder/ksbstabi.htm
>
>
>>Why not use a DDS?
>
>
> Thought there might be a problem with harminics.
>
Do you mean spurs? Possibly. The popular DDS from Analog Devices
clocks at 50MHz, so you can easily get 15MHz energy out of it. Divide
that by 6 and you'll get more spectral purity and your 2.5MHz high end.

You can also make a very low phase noise VCO that runs at 2MHz and
stabilize it's frequency with a DDS. QEX has had articles on this.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

1213. Re: Stability of huff & puff.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-28 16:12:13 UTC
From: "Harold E. Johnson" <W4ZCB@mchsi.com>
Message-ID: <xfQNc.203537$Oq2.39558@attbi_s52>
Source record: 24545

"Tim Wescott" <tim@wescottnospamdesign.com> wrote in message
news:10gfcoltol36q96@corp.supernews.com...
> Richard wrote:
>
> > Anyone have an educated guess as to what frequency stability ought to be
> > acheivable with huff and puff stabilzation technique for a 2.0-2.5Mhz
solid
> > state oscillator? I'm thinking of making a non directional beacon RX
with
> > IF bandwidth of 20Hz.
>
Once locked, it's as good as the crystal controlling it. Might move 5-20 Hz
however to the nearest lock point.

W4ZCB

1214. Re: Receive NDB beacons ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-28 16:56:34 UTC
From: Richard <nearlynews_email@ntlworld.com>
Message-ID: <2mq447Fpi8rgU1@uni-berlin.de>
Source record: 24546
Cross-posted to: alt.radio.scanner,rec.radio.amateur.homebrew,rec.radio.scanner,sci.electronics.design

"Damien Teney" <dteney@hotmail.com> wrote in message
news:adSdnePTA_XvXJrcRVnyig@scarlet.biz...
> Cool ! Thanks for these links, I didn't know there were so many people who
> where interested with NDB's. Where can I get the NDB RX circuit you're
> talking about ?

It's not on the WWW, it just mentions it.

I tried sending it you, but the email I used was no good.

1215. Re: UHF oscillator

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-28 16:56:41 UTC
From: xpyttl <xpyttl_NOSPAM@earthling.net>
Message-ID: <10gfmmcij7bhja0@corp.supernews.com>
Source record: 24547

"Ruben Undheim" <saltmakrell@hotmail.com> wrote in message
news:4107953e$1@news.wineasy.se...

> but it seems like you write that some DDS circuits can
> make much higher frequencies. Is that right?

TI has a couple of parts worth looking at. They are a little more involved to deploy than the Analog Devices parts, but they go mugh higher in frequency.

The TRF2050 is a 1.2 GHz synthesizer:
http://www.datasheetarchive.com/cgi-bin/q.php?pi=76585

The TRF2052 is practically the same part for 2 GHz. Gigahertz prescalers are pretty inexpensive, so it would be a simple matter to divide one of these down to what you need.

The TRF4400 is a 440 MHz "transmitter". Basically, it is a DDS, FSK modulator and amplifier on a chip:
http://focus.ti.com/prod/folders/print/trf4400.html

This part looks a little simpler to use than the 205x. The 4900 is the same thing for 900 MHz. Although the part is aimed at 433 MHz, Steve "Melt Solder" Weber has used it down to 50 MHz. The TI parts are significantly less expensive than the AD parts. (But AD has a great sampling policy!)

The AD985x are probably the easiest to use. Keep in mind that you have essentially a crystal oscillator, although tuneable. Even with, say, a 9850 at 30 MHz or so, multiplying it up for your injection isn't all that bad since you have a lot of stability to begin with. There must be a hundred plans out there for 9850 based VFOs. The 9854 is a quadrature DDS ... you might get cute with the quadrature outputs to get some multiplication.

All of these parts are TSSOP parts, so a printed circuit card is a must. FAR circuits has some protoboards that you could use, and for the 9850, NJQRP has a little board that contains just the basics for making the 9850 play. A number of other places have protoboards, but these two seem to be about the cheapest. There is a good possibility that someone on that side of the pond is cheaper for you.

..

1216. Re: Stability of huff & puff.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-28 17:08:28 UTC
From: Richard <nearlynews_email@ntlworld.com>
Message-ID: <2mq4qaFptjmmU1@uni-berlin.de>
Source record: 24548

"Harold E. Johnson" <W4ZCB@mchsi.com> wrote in message
news:xfQNc.203537$Oq2.39558@attbi_s52...
>
> "Tim Wescott" <tim@wescottnospamdesign.com> wrote in message
> news:10gfcoltol36q96@corp.supernews.com...
> > Richard wrote:
> >
> > > Anyone have an educated guess as to what frequency stability ought to
be
> > > acheivable with huff and puff stabilzation technique for a 2.0-2.5Mhz
> solid
> > > state oscillator? I'm thinking of making a non directional beacon RX
> with
> > > IF bandwidth of 20Hz.
> >
> Once locked, it's as good as the crystal controlling it. Might move 5-20
Hz
> however to the nearest lock point.
>
> W4ZCB

Mmm, are you saying that a stabilized oscillator will drift up to say + or -
20Hz, or that when tuning it will tend to jump in 20Hz steps? I think
that's what you are meaning, and that once locked the drift is much
less than 20Hz. Similar to xtal stability. I'm just wondering what a
frequency counter would read when tuning:

2,000,000 Hz jumps to > 2,000,020Hz jumps to > 2,000,040 Hz etc?

And I wonder what the stability would be once tuned. I guess crystal specs
ought to give a ppm figure.

1217. Re: looking for information on toroidal cores

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-28 17:17:57 UTC
From: xpyttl <xpyttl_NOSPAM@earthling.net>
Message-ID: <10gfnu92mus11a4@corp.supernews.com>
Source record: 24549

"larry" <larya@rogers.com> wrote in message
news:lpuNc.1$8Qp.0@news04.bloor.is.net.cable.rogers.com...
> Greetings
>
> I am looking for information on toroidal cores...

Other posters have pointed you to websites and programs with the calculations. By the way, the Radio Amateur's Handbook, of course, also has good information.

A few 50,000 foot comments that were overlooked....

Toroids come in powdered iron and ferrite. Powdered iron results in lower loss and lower inductance and is generally used in tuned circuits. Ferrite is used in chokes and broadband transformers.

Both loss and temperature coefficient tend to be poorer in toroids than in air wound inductors. However, they are much smaller, and the magnetic field doesn't extend out the way it does for a helical inductor, so parts placement is less critical. They are also less prone to microphonics.

For amateur HF use, -2 and -6 powdered iron is generally used for tuned circuits, except for VFO's where -7 is popular due to its lower temperature coefficient. -43 and -61 ferrites seem to be the most popular for RF transformers.

Powdered iron is colored to tell you the mix. HOWEVER, and this is a biggie, the colors amateurs use are the colors that Amidon uses for it's AMATEUR RADIO targeted line. Other manufacturers and even the same manufacturer for a different market may use different colors. The most popular are red (-2) for <10 MHz, yellow (-6) for >10 MHz, and white (-7) for VFOs. If you buy surplus toroids the colors may lie so measure before you believe. You can't tell ferrites apart by looking at them.

The digits before the dash are the size, in hundreths of an inch. So for example, a T50-6 is a half-inch powdered iron, mix #6 while an FT37-43 is a mix #43, 3/8" ferrite. The microhenries per turn does change a bit with the core diameter, but generally the size is selected simply to be able to fit the number of turns needed on the core.

hope this helps

..

1218. analog to digital converter

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-28 17:18:38 UTC
From: larry <larya@rogers.com>
Message-ID: <OdRNc.101$BL51.48@news04.bloor.is.net.cable.rogers.com>
Source record: 24550

Greetings

I am now looking for information on analog to digital converters. I am looking for information on how they work....

Reason: I need one that can converter from about .1 volts, if possible, to about 15 to 20 volts. Thats about a 15 volts one end to the other....

I have one that goes from, I believe, the traditional 0 to 5 volts, I assume...

I would like to see how d/a converters work and how I can get one to extend it's range....

I think, actually, I need to know more about d/a converters so I can ask more intelegent questions....I know what I want it to do, now I just have to find out how to make one do it...

Larry ve3fxq
p.s. sorry for being sooo wordy...

1219. Re: Receive NDB beacons ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-28 17:22:44 UTC
From: Damien Teney <dteney@hotmail.com>
Message-ID: <59idnZRACsF5fZrcRVnyiQ@scarlet.biz>
Source record: 24551
Cross-posted to: alt.radio.scanner,rec.radio.amateur.homebrew,rec.radio.scanner,sci.electronics.design

Ok, so try to send it to dam@mcarsweb.com

Thanks ;-)

"Richard" <nearlynews_email@ntlworld.com> a crit dans le message de news:
2mq447Fpi8rgU1@uni-berlin.de...
>
> "Damien Teney" <dteney@hotmail.com> wrote in message
> news:adSdnePTA_XvXJrcRVnyig@scarlet.biz...
> > Cool ! Thanks for these links, I didn't know there were so many people
who
> > where interested with NDB's. Where can I get the NDB RX circuit you're
> > talking about ?
>
> It's not on the WWW, it just mentions it.
>
> I tried sending it you, but the email I used was no good.
>

1220. Re: Stability of huff & puff.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-28 17:55:00 UTC
From: "Harold E. Johnson" <W4ZCB@mchsi.com>
Message-ID: <ULRNc.204005$Oq2.186649@attbi_s52>
Source record: 24552

"Richard" <nearlynews_email@ntlworld.com> wrote in message
news:2mq4qaFptjmmU1@uni-berlin.de...
>
> "Harold E. Johnson" <W4ZCB@mchsi.com> wrote in message
> news:xfQNc.203537$Oq2.39558@attbi_s52...
> >
> > "Tim Wescott" <tim@wescottnospamdesign.com> wrote in message
> > news:10gfcoltol36q96@corp.supernews.com...
> > > Richard wrote:
> > >
> > > > Anyone have an educated guess as to what frequency stability ought
to
> be
> > > > acheivable with huff and puff stabilzation technique for a
2.0-2.5Mhz
> > solid
> > > > state oscillator? I'm thinking of making a non directional beacon
RX
> > with
> > > > IF bandwidth of 20Hz.
> > >
> > Once locked, it's as good as the crystal controlling it. Might move 5-20
> Hz
> > however to the nearest lock point.
> >
> > W4ZCB
>
> Mmm, are you saying that a stabilized oscillator will drift up to say +
or -
> 20Hz, or that when tuning it will tend to jump in 20Hz steps? I think
> that's what you are meaning, and that once locked the drift is much
> less than 20Hz. Similar to xtal stability. I'm just wondering what a
> frequency counter would read when tuning:
>
> 2,000,000 Hz jumps to > 2,000,020Hz jumps to > 2,000,040 Hz etc?
>
> And I wonder what the stability would be once tuned. I guess crystal
specs
> ought to give a ppm figure.

The Huff n Puff has discrete frequencies that it will lock a VFO to. In most designs, those frequencies are somewhere between 5 and 30 Hz apart and when your VFO is tuned and stopped, the HnP will then pull it to the nearest lock frequency and lock the frequency (NOT the Phase!) there.

It will then keep the VFO at that frequency, dependent on the drift rate and direction of the crystal used for the divider. BIG advantage is that it does not appreciably raise the phase noise level of the VFO as does a PLL, BIG disadvantage for your purposes is that it is not continuously tuneable. If you played the math, you could make those lock frequencies come out where you wanted them, but since it's a percentage thing, only over a relatively small span of frequencies.
>
W4ZCB

1221. Re: analog to digital converter

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-28 18:48:22 UTC
From: Leon Heller <leon_heller@hotmail.com>
Message-ID: <4107f4f7$0$6443$cc9e4d1f@news-text.dial.pipex.com>
Source record: 24553

"larry" <larya@rogers.com> wrote in message
news:OdRNc.101$BL51.48@news04.bloor.is.net.cable.rogers.com...
> Greetings
>
> I am now looking for information on analog to digital converters. I am
> looking for information on how they work....
>
> Reason: I need one that can converter from about .1 volts, if possible,
to
> about 15 to 20 volts. Thats about a 15 volts one end to the other....

That sounds more like an amplifier than an ADC.

Leon

1222. Re: analog to digital converter

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-28 19:12:14 UTC
From: K7MEM <k7mem@myrealbox.com>
Message-ID: <4107FA8E.4000705@myrealbox.com>
Source record: 24554

larry wrote:
> Greetings
>
> I am now looking for information on analog to digital converters. I am
> looking for information on how they work....
>
> Reason: I need one that can converter from about .1 volts, if possible, to
> about 15 to 20 volts. Thats about a 15 volts one end to the other....
>
> I have one that goes from, I believe, the traditional 0 to 5 volts, I
> assume...
>
> I would like to see how d/a converters work and how I can get one to extend
> it's range....
>
> I think, actually, I need to know more about d/a converters so I can ask
> more intelegent questions....I know what I want it to do, now I just have to
> find out how to make one do it...
>
> Larry ve3fxq
> p.s. sorry for being sooo wordy...
>
>

Initially you are talking about A/Ds, but later you talk about D/As. I
assume that that's just a typo and your talking about A/Ds in all cases.

Well most of the A/D converters that I have delt with cover a range of
0 to 1 volt or -1 to +1 volts. But, I have worked with some that offer
a 10 volt input range.

As far as converting your input range, I would just use an op-amp as
a level translator to take your 0 to 20 volt range and convert it to
the input spec of the A/D. Add another one in front, for buffering,
and possibly another to handle any inversions.

If you want to have a little fun you can use a couple of op-amps,
some counter chips, and a D/A (no typo) to make a nice tracking A/D.

But you are right, you need to learn a lot more about A/Ds. What kind
of resolution do you need? What frequencies are we dealing with?
And many more questions.

If your are dealing with some slow signals then you can use some
pretty cheap op-amps and A/Ds. But higher frequency conversions
would require more sophisticated parts.

Probably if you do a search on digital processing techniques you
will come across a tutorial or two on the conversion processes.

--
Martin E. Meserve
k7mem@myrealbox.com
http://www.k7mem.150m.com

1223. Re: analog to digital converter

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-28 19:30:08 UTC
From: jimp@specsol-spam-sux.com
Message-ID: <ce8us0$a0m$1@mail.specsol.com>
Source record: 24555

larry <larya@rogers.com> wrote:
> Greetings

> I am now looking for information on analog to digital converters. I am
> looking for information on how they work....

> Reason: I need one that can converter from about .1 volts, if possible, to
> about 15 to 20 volts. Thats about a 15 volts one end to the other....

> I have one that goes from, I believe, the traditional 0 to 5 volts, I
> assume...

> I would like to see how d/a converters work and how I can get one to extend
> it's range....

> I think, actually, I need to know more about d/a converters so I can ask
> more intelegent questions....I know what I want it to do, now I just have to
> find out how to make one do it...

> Larry ve3fxq
> p.s. sorry for being sooo wordy...

The absolute best book I have ever seen on how electronics works, how to
design good circuits and not design bad circuits is called "The Art of
Electronics" by Horowitz and Hill.

This book has everything you would want to know about A/D converters
and DACs, and a whole lot more.

It is full of practical circuit information.

--
Jim Pennino

Remove -spam-sux to reply.

1224. Re: UHF oscillator

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-28 20:12:50 UTC
From: Wim Ton <wimton@blueyonder.co.uk>
Message-ID: <6NTNc.27021$7t5.15199@fe1.news.blueyonder.co.uk>
Source record: 24556

"Ruben Undheim" <saltmakrell@hotmail.com> wrote in message
news:4107953e$1@news.wineasy.se...
> Hello!
>
> Thank you all of you for the valuable help you have given me!
>
> I became some curious about these DDS-circuits. I have read something
about
> the AD9835. That one can generate sinewaves up to 50MHz, but it seems like
> you write that some DDS circuits can make much higher frequencies. Is that

DDS circuits consume a lot of power at these high frequencies.

Wim

1225. Re: analog to digital converter

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-28 21:38:46 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <MPG.1b71bcc2cf5428219896e9@news-central.giganews.com>
Source record: 24557

In article <OdRNc.101$BL51.48@news04.bloor.is.net.cable.rogers.com>,
larya@rogers.com says...
> Greetings
>
> I am now looking for information on analog to digital converters. I am
> looking for information on how they work....
>
> Reason: I need one that can converter from about .1 volts, if possible, to
> about 15 to 20 volts. Thats about a 15 volts one end to the other....
>

Look at the data sheets for the DAC0801 and similar parts. They will
show you how to use an opamp as a current-to-voltage converter to obtain
any voltage range you need.

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

1226. Re: UHF oscillator

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-28 22:02:11 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <MPG.1b71c2408dc3fddc9896ea@news-central.giganews.com>
Source record: 24558

In article <4107953e$1@news.wineasy.se>, saltmakrell@hotmail.com says...
> Hello!
>
> Thank you all of you for the valuable help you have given me!
>
> I became some curious about these DDS-circuits. I have read something about
> the AD9835. That one can generate sinewaves up to 50MHz, but it seems like
> you write that some DDS circuits can make much higher frequencies. Is that
> right?.. or do you just have to multiplicate those frequencies from below
> 50MHz up to the frequencies you want? Can you give me some examples of
> recommended DDS-circuits that are capable of making UHF frequencies?
>
> Thank you
>
> Ruben
>
>
>

You don't necessarily need a multiplier with a DDS. These parts are fabricated in processes with an fT of many gigahertz, so their unfiltered output spectrum is almost like what you'd expect from a comb generator. So, for a narrow frequency range, you can use "images" from a low-frequency DDS.

To do this, you replace the low-pass filter usually used at the DDS output with a bandpass filter that covers the desired range of output frequencies. Then, you tune the DDS so that one of its DAC-alias harmonics falls where you want it.

Example: You want to generate signals between 420-425 MHz. You have an AD9850 DDS clocked at 100 MHz. If you tune the AD9850 to (for example) 20 MHz, its output will consist of a comb of signals at 20, 120, 220, 320, 420, ... MHz (Nfc+fo) and 80, 180, 280, 380, 480, ... MHz (Nfc-fo). Normally you'd use a low-pass filter with a cutoff around 50 MHz to eliminate the higher-frequency aliases, but in this case, you actually want to use a bandpass filter to pass the alias frequencies between 420-425 MHz (4fc+fo) and reject the adjacent ones at 4fc-fo (375-380 MHz) and 5fc-fo (475-480 MHz).

The AD9850 data sheet (search for it at www.analog.com) has a nice summary of this effect.

There are two main drawbacks: (1) Any spurs from the DDS will be at least 20*log(N) times worse at the alias frequency than at the fundamental, where N is the clock harmonic number you're using; and (2)

you may also have to contend with harmonics of the 20 MHz output signal in this example. The latter probably won't be too bad around 400 MHz, but the former might be.

If I were doing this, I would probably use a cleaner DDS like the AD9852/9854 or one of the new AD9950-series parts, but that may not be necessary in your case.

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

1227. Re: UHF oscillator

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-28 22:13:07 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <MPG.1b71c2ef544ad2099896eb@news-central.giganews.com>
Source record: 24559

In article <MPG.1b71c2408dc3fddc9896ea@news-central.giganews.com>,
jmiles@pop.removethistomailme.net says...

> There are two main drawbacks: (1) Any spurs from the DDS will be at
> least 20*log(N) times worse

Er, 20*log(N) dB worse, that is.

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

1228. F.S. Kenwood & Drake filters

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-29 01:38:28 UTC
From: John Haberkern <jhabs@worldnet.att.net>
Message-ID: <oyYNc.146120$OB3.64552@bgtnsc05-news.ops.worldnet.att.net>
Source record: 24560
Cross-posted to: alt.ham-radio.marketplace,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.swap

I have forsale 2 crystal filters;

1) yf-88 1.8 kc crystal filter for the Kenwood 820 series radio and
any other that uses a 8830 khz i.f. this filter is made by Seiwa Corp.
and sold by the fox tango who is now international radio. asking $60 shipped
u.s.

2) Fl-250 250 hz crystal filter for the Drake R4-c series of receiver.
it has center freq. of 5695 khz and was originally sold by Drake radio in
the late 70,s
and manuf. by Network Sciences. asking $75 shipped u.s.

--
John Haberkern
w3ayt@arrl.net

1229. Re: Stability of huff & puff.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-29 09:39:37 UTC
From: Hans Summers <hans.summers@tudor.com>
Message-ID: <2mruuoFps0v3U1@uni-berlin.de>
Source record: 24561

"Richard" <nearlynews_email@ntlworld.com> wrote in message
news:2mpjmmFpjh4bU1@uni-berlin.de...
> Anyone have an educated guess as to what frequency stability ought to be
> acheivable with huff and puff stabilzation technique for a 2.0-2.5Mhz
solid
> state oscillator? I'm thinking of making a non directional beacon RX with
> IF bandwidth of 20Hz.
>

I have a large collection of Huff Puff stabiliser articles reproduced with permission on my website, see http://www.hanssummers.com/radio/huffpuff/contents.htm, and also links to my own version of the stabiliser http://www.hanssummers.com/radio/huffpuff/fast/index.htm and all the other Huff Puff stabilisers on the internet that I am aware of.

Frequency stability depends on your crystal, you could use an oven controlled reference for ultimate stability.

Distance between lock points depends on your design parameters. Yes, when you tune you'd see 2,000,000 -> 2,000,020 -> 2,000,040 for example (once the thing had settled down, which should be very fast but again depends on your design parameters).

Another factor is the frequency deviation around the lock points. By nature, the Huff Puff stabiliser works by applying correction pulses to the VFO, to marginally increase or decrease the frequency to move it closer to the lock point. There is therefore a small variation in frequency. Again the amount of Huffing and Puffing depends on your design parameters.

In general if you start off with a good oscillator, then you can design your Huff Puff stabiliser to only apply small correction pulses, which will enable you to obtain minimal deviation about the lock point. This also allows you to design for closer together lock points, without risk of the VFO jumping to adjacent lock points.

In any case it is best to reduce the effect of your stabiliser on the VFO to the point at which it comfortably stabilises, but no more - otherwise it will be difficult to tune. The stabiliser is always fighting against your efforts to tune the VFO. You want to be able to tune a small shift slowly without the stabiliser being so vigourous that it cancels out your attempt.

Definitely go for Peter Lawton G7IXH's "fast" stabiliser design involving a shift register to delay the comparison pulses. The
CMOS 4517 IC is a 128-stage shift register which is perfect for this purpose. One way to think of this design compared to the original stabiliser

design is as 128 ordinary stabilisers all Huffing and Puffing in parallel. The overall effect is much better frequency control and less deviation around the lock points. I prefer to think of it as a means of statistically averaging many binary pulses into a more analogue correction signal. If you use the "fast" design your end results will be superior in terms of minimal frequency variations relative to the lock point.

In my 80/40m HF receiver (http://www.hanssummers.com/radio/polyphase/index.htm) I am using a 14MHz VFO Huff Puff stabilised at about 44 Hz (if I recall) lock points. This is divided by 4 to produce 3.5MHz quadrature for the Tayloe mixer (direct conversion followed by polyphase method unwanted sideband cancellation). The lock points at 3.5MHz are 11Hz apart. Frequency deviation is unnoticeable (sub 1Hz). See the VFO & stabiliser: http://www.hanssummers.com/radio/huffpuff/fast/index.htm.

In conclusion I'd say you have no problems with 20Hz IF bandwidth and a decent Huff Puff stabilised oscillator.

73 Hans G0UPL
http://www.HansSummers.com

1230. Re: Stability of huff & puff.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-29 10:16:24 UTC
From: "Airy R. Bean" <ariy.r.bean@lycos.co.uk>
Message-ID: <2ms1l7Fpm4okU1@uni-berlin.de>
Source record: 24562

If your reference frequency is significantly less than 20Hz, and your oscillator is sufficiently stable not to drift more than 20Hz in one cycle of your reference frequency, then you'll be OK.

"Richard" <nearlynews_email@ntlworld.com> wrote in message news:2mpjmmFpjh4bU1@uni-berlin.de...
> Anyone have an educated guess as to what frequency stability ought to be
> acheivable with huff and puff stabilzation technique for a 2.0-2.5Mhz solid
> state oscillator? I'm thinking of making a non directional beacon RX with
> IF bandwidth of 20Hz.

1231. Another HB VNA - opinions, please...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-29 14:12:23 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <4b1ig0lk29e12hmjul3u1137g3bc3i3h9u@4ax.com>
Source record: 24563

Hi guys,

Just come across this design for a self-build VNA and wondered what
you thought of the spec:

http://www.geocities.com/robert_lacoste/previous_designs.htm

--

"What is now proved was once only imagin'd." - William Blake, 1793.

1232. Re: Another HB VNA - opinions, please...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-29 14:17:56 UTC
From: "Harold E. Johnson" <W4ZCB@mchsi.com>
Message-ID: <oG7Oc.190551$JR4.101819@attbi_s54>
Source record: 24564

> Just come across this design for a self-build VNA and wondered what
> you thought of the spec:
>
> http://www.geocities.com/robert_lacoste/previous_designs.htm
>
Cute toy, but 30-40 dB of dynamic range would be useless for my purposes.
Probably enough if you were just looking for an antenna analyzer.

W4ZCB

1233. PLEASE READ - Internet site under legal attack by Radioshack corp.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-29 18:05:41 UTC
From: DSL <retiredltNOSPAM@NOSPAMoptonline.net>
Message-ID: <V%aOc.18881$oE1.1782652@news4.srv.hcvlny.cv.net>
Source record: 24565
Cross-posted to: alt.radio.wktu,rec.radio.amateur,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy

Thank you for taking the time to read this.

Your Freedoms are in jeopardy! RadioShack Corporation has filed an injunction in a Texas Court that has shut down an opinion website, http://www.radioshacksucks.com, in direct violation of the Freedoms of Speech, Expression and Peaceful Assembly, as guaranteed to us by the Constitution of the United States. If other companies learn of this, they will use it against any website that speaks out against that company. This is extremely dangerous, as it will change the face and scope of the Internet.

If Big Business continues to dominate our lifestyles, we will lose our freedom to worship as we see fit. We will lose our freedom to vote for the candidate that we think will do the better job. We will lose our freedom of the press to accurately report on current events. We will lose everything we have fought and died for in the past 228 years Do not tell this to the descendants of those that have bravely fought in previous battles and wars, for their ancestors would have died in vain. The Constitution will have been overruled by Big Business.

RadioShack is on a vicious witch hunt and will not stop until they dominate our lives. RadioShack must be stopped now, before it gets any later or any worse.

Here is what you can do to help: copy this letter and add your signature to the bottom. Mail it to the following people:

Leonard H Roberts
CEO RadioShack Corporation
100 Throckmorton Plaza
Ft Worth, TX 76102

The Honorable Kenneth Curry
401 W BELKNAP
153RD DISTRICT COURT
FORT WORTH, TX, 76196-0225

Thank you for your help and support.

1234. Re: PLEASE READ - Internet site under legal attack by Radioshack corp.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-29 18:35:40 UTC
From: DSL <retiredltNOSPAM@NOSPAMoptonline.net>
Message-ID: <0sbOc.19100$oE1.1848417@news4.srv.hcvlny.cv.net>
Source record: 24566
Cross-posted to: alt.radio.wktu,rec.radio.amateur,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy

For more information and daily updates please visit:
http://socaltom.blogspot.com/

1235. Re: PLEASE READ - Internet site under legal attack by Radioshack corp.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-29 19:40:20 UTC
From: K&#65533;HB <groupk0hb@earthlink.net>
Message-ID: <EocOc.2271$9Y6.1747@newsread1.news.pas.earthlink.net>
Source record: 24567
Cross-posted to: alt.radio.wktu,rec.radio.amateur,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy

"DSL" <retiredltNOSPAM@NOSPAMoptonline.net> wrote

>
> RadioShack is on a vicious witch hunt and will not stop until they
dominate
> our lives. RadioShack must be stopped now, before it gets any later or
any
> worse.
>

Radioshack wants to dominate my life? First I'd heard of it.

Get a grip on reality!

73, de Hans, K0HB

1236. Re: Stability of huff & puff.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-29 20:26:18 UTC
From: Richard <nearlynews_email@ntlworld.com>
Message-ID: <2mt4pfFqhmvvU1@uni-berlin.de>
Source record: 24568

"Hans Summers" <hans.summers@tudor.com> wrote in message
news:2mruuoFps0v3U1@uni-berlin.de...

> In conclusion I'd say you have no problems with 20Hz IF bandwidth and a
> decent Huff Puff stabilised oscillator.

Thanks.

One question: For a 2.00 - 2.50 Mhz oscillator, what, do you think, using huff & puff, would be the minimum tuning jump you could acheive? Could you acheive a 5hz jump or less? Rich.

1237. Re: PLEASE READ - Internet site under legal attack by Radioshack corp.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-29 22:49:18 UTC
From: Phil Witt <w4imm@mindspring.com>
Message-ID: <4bvig01phodnq3pejdofsndevkgleu3f70@4ax.com>
Source record: 24569
Cross-posted to: alt.radio.wktu,rec.radio.amateur,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy

What's wrong with Radio Shack, anyway? I bought something there both yesterday and today. Had what I wanted a cheap enough. No problems.

Anybody can sue anybody. Why should this upset anybody. That's the American way. Sue enough people and you might even become a politician......maybe even a presidential or vice-presidential candidate. My freedoms are certainly not in jeopardy because RS sues somebody....quite the opposite. This just shows what freedoms we have.

On Thu, 29 Jul 2004 18:05:41 GMT, "DSL" <retiredltNOSPAM@NOSPAMoptonline.net> wrote:

>Thank you for taking the time to read this.
>
>Your Freedoms are in jeopardy!

1238. Re: htx-202

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-29 23:07:02 UTC
From: Radio N6BHU <n6bhu@qsl.net>
Message-ID: <Pine.LNX.4.58.0407291605420.20093@torquay.cahuenga.com>
Source record: 24570

While we're on the subject of these little bricks, has anyone got a schematic for one they can post? (I've got one that's DOA, and in need of TLC.) Thanx...

...Dave, N6BHU

1239. Re: Another HB VNA - opinions, please...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-29 23:08:03 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <to0jg0tdche15pajpafugjskpni2tffv1i@4ax.com>
Source record: 24571

On Thu, 29 Jul 2004 14:17:56 GMT, "Harold E. Johnson"
<W4ZCB@mchsi.com> wrote:

>
>
>> Just come across this design for a self-build VNA and wondered what
>> you thought of the spec:
>>
>> http://www.geocities.com/robert_lacoste/previous_designs.htm
>>
>Cute toy, but 30-40 dB of dynamic range would be useless for my purposes.
>Probably enough if you were just looking for an antenna analyzer.

It is a very short range, I must say. Something down to -100 would
have been nice. And what of the 50Khz resolution? I hope that's at the
very top end!
--

"What is now proved was once only imagin'd." - William Blake, 1793.

1240. Re: PLEASE READ - Internet site under legal attack by Radioshack corp.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-29 23:11:03 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <bu0jg0tsudssf7mv7stvdobbkjn5adu162@4ax.com>
Source record: 24572
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

On Thu, 29 Jul 2004 17:49:18 -0500, Phil Witt <w4imm@mindspring.com>
wrote:

>What's wrong with Radio Shack, anyway? I bought something there both
>yesterday and today. Had what I wanted a cheap enough. No problems.
>
>Anybody can sue anybody. Why should this upset anybody. That's the
>American way. Sue enough people and you might even become a
>politician......maybe even a presidential or vice-presidential
>candidate. My freedoms are certainly not in jeopardy because RS sues
>somebody....quite the opposite. This just shows what freedoms we have

^^^^^^^^^^^^

What freedoms you *think* you still have.
--

"What is now proved was once only imagin'd." - William Blake, 1793.

1241. Re: PLEASE READ - Internet site under legal attack by Radioshack corp.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-29 23:21:00 UTC
From: Radio N6BHU <n6bhu@qsl.net>
Message-ID: <Pine.LNX.4.58.0407291617410.20093@torquay.cahuenga.com>
Source record: 24573
Cross-posted to: alt.radio.wktu,rec.radio.amateur,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy

It's just Bog Business doing what they do best -- they think they own the English language, along with everything else on planet Earth. (It's also par for the course these days.) So, who's ready to try and stop 'em?

...Dave, N6BHU

On Thu, 29 Jul 2004, DSL wrote:

> For more information and daily updates please visit:
> http://socaltom.blogspot.com/
>
>
>

1242. Re: Receive NDB beacons ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-30 00:41:55 UTC
From: Richard <translations@qdnet.pl>
Message-ID: <cec5ql$216$1@nemesis.news.tpi.pl>
Source record: 24574
Cross-posted to: alt.radio.scanner,rec.radio.amateur.homebrew,rec.radio.scanner,sci.electronics.design

Hi,

you might find ou are better of buying one of the ready made LF converters,
sometimes they go very cheap on ebay.

Yes, I do NDB DXing, I can send you some links if you like. Mial me
directly. Its an interesting hobby!

Richard, Poland
"Damien Teney" <dteney@hotmail.com> wrote in message
news:WvSdnfBdaO5H2JjcRVnyhg@scarlet.biz...
> Hello everybody,
> I wonder if anyone has already tried to receive the signal of NDB beacons
?
> These are long-range radio beacons, used by aircrafts for navigation,
> operating in the frequencies from stg like 200 to 500 KHz I think. Their
> signal is AM-modulated with a sound signal of their code (three letters)
in
> morse.
>
> It would be an interesting project to build a receiver and ADF for these
> beacons, but I'd like to know if anyone has already tried that.
>
> Thanks for your answers ;-)
>
>

1243. Ham Calc Software

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-30 01:09:20 UTC
From: haf47@juno.com
Message-ID: <f03bf94f.0407291709.662d3483@posting.google.com>
Source record: 24575

Hello to all...

I recently found some very pleasant software I thought might be of interest to many on this list.

It's called HamCalc and is available as freeware. This is NOT the faboulous collection of programs from George Murphy, VE3ERP, but different software from England.

You can check it out at:
http://www.vwlowen.demon.co.uk/radio/files.htm

This software doesn't do anything that you couldn't accomplish with a calculator, but it is very nicely packaged and is easy to use.

For those who write all of their own software, DO NOT go to this site!! And please do not criticize me for having the good sense to recognize and take advantage of the efforts of others who are delighted to share their work.

73 de WA2AFD

1244. Re: PLEASE READ - Internet site under legal attack by Radioshack corp.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-30 01:25:36 UTC
From: Herbert Khaury <tiptoe@tulip.me>
Message-ID: <Y4GdnaxIN-MMPpTcRVn-pA@comcast.com>
Source record: 24576
Cross-posted to: alt.radio.wktu,rec.radio.amateur,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy

Radio Shack?.... That thing still around? Should change their name to
Cell-phone Shack.

--

1245. Re: PLEASE READ - Internet site under legal attack by Radioshack corp.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-30 03:39:21 UTC
From: K&#65533;HB <groupk0hb@earthlink.net>
Message-ID: <JpjOc.2728$cK.2218@newsread2.news.pas.earthlink.net>
Source record: 24577
Cross-posted to: alt.radio.wktu,rec.radio.amateur,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy

"Herbert Khaury" <tiptoe@tulip.me> wrote

> Radio Shack?.... That thing still around? Should change their name to
> Cell-phone Shack.

Cell phones are radios too.

1246. Re: PLEASE READ - Internet site under legal attack by Radioshack corp.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-30 04:22:09 UTC
From: JOE <JOEnospam7745@hotmail.com>
Message-ID: <73d70a0cc13efc4b4d014ebd93f6de4a@news.meganetnews.com>
Source record: 24578
Cross-posted to: alt.radio.wktu,rec.radio.amateur,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy

yawn

"DSL" <retiredltNOSPAM@NOSPAMoptonline.net> wrote in message
news:V%aOc.18881$oE1.1782652@news4.srv.hcvlny.cv.net...
> Thank you for taking the time to read this.
>
> Your Freedoms are in jeopardy! RadioShack Corporation has filed an
> injunction in a Texas Court that has shut down an opinion website,
> http://www.radioshacksucks.com, in direct violation of the Freedoms of
> Speech, Expression and Peaceful Assembly, as guaranteed to us by the
> Constitution of the United States. If other companies learn of this, they
> will use it against any website that speaks out against that company. This
> is extremely dangerous, as it will change the face and scope of the
> Internet.
>
> If Big Business continues to dominate our lifestyles, we will lose our
> freedom to worship as we see fit. We will lose our freedom to vote for the
> candidate that we think will do the better job. We will lose our freedom
of
> the press to accurately report on current events. We will lose everything
we
> have fought and died for in the past 228 years Do not tell this to the
> descendants of those that have bravely fought in previous battles and
wars,
> for their ancestors would have died in vain. The Constitution will have
been
> overruled by Big Business.
>
> RadioShack is on a vicious witch hunt and will not stop until they
dominate
> our lives. RadioShack must be stopped now, before it gets any later or any
> worse.
>
> Here is what you can do to help: copy this letter and add your signature
to
> the bottom. Mail it to the following people:
>
> Leonard H Roberts
> CEO RadioShack Corporation
> 100 Throckmorton Plaza
> Ft Worth, TX 76102
>

> The Honorable Kenneth Curry
> 401 W BELKNAP
> 153RD DISTRICT COURT
> FORT WORTH, TX, 76196-0225
>
>
> Thank you for your help and support.
>
>
>

1247. Re: Ham Calc Software

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-30 04:58:56 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <kAkOc.80409$iw3.56043@clgrps13>
Source record: 24579

Very 1337 8-)

Thanks!

--
Gregg t3h g33k
"Ratings are for transistors....tubes have guidelines"
http://geek.scorpiorising.ca

1248. Re: Stability of huff & puff.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-30 09:18:54 UTC
From: Hans Summers <hans.summers@tudor.com>
Message-ID: <2mui3tFr1vneU1@uni-berlin.de>
Source record: 24580

"Richard" <nearlynews_email@ntlworld.com> wrote in message
news:2mt4pfFqhmvvU1@uni-berlin.de...
>
> "Hans Summers" <hans.summers@tudor.com> wrote in message
> news:2mruuoFps0v3U1@uni-berlin.de...
>
> > In conclusion I'd say you have no problems with 20Hz IF bandwidth and a
> > decent Huff Puff stabilised oscillator.
>
> Thanks.
>
> One question: For a 2.00 - 2.50 Mhz oscillator, what, do you think, using
> huff & puff, would be the minimum tuning jump you could acheive? Could
you
> acheive a 5hz jump or less? Rich.

I would think < 5Hz would be easily achievable. My divided-down 14MHz VFO has 11Hz lock points at 3.5 - 4MHz and it isn't even a particularly fine oscillator to start with (just the single-transistor internal oscillator of the 74HC4060).

The actual minimum distance between lock points that you can achieve depends on how you design the stabiliser, which will depend on how stable your oscillator is to start with and how capable your Huff Puff circuit is at stabilising it. The latter depends partially on the design (i.e. use the "fast" method and 128 or 256 shift register stages), and partly on the integrator time constant and how much "pulling" range you allow (e.g. the size of each Huff or Puff).

When you play with Huff Puff stabilisers you will quickly find that the optimum design is a tradeoff between all these factors. The Huff Puff stabiliser will give best performance when it is stabilising an already-good oscillator. So it's best to do as good as you can with the VFO design, then add the stabiliser. I am planning to build a Huff Puff stabilised crystal oscillator at some point, for my QRSS experiments http://www.hanssummers.com/radio/qrss/index.htm. There, the distance between lock points can easily be sub 1Hz.

73 Hans G0UPL
http://www.HansSummers.com

1249. Soldering/desoldering station

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-30 10:12:47 UTC
From: David J Windisch <davidw@copper.net>
Message-ID: <410a1f62_2@newsfeed.slurp.net>
Source record: 24581

Hi, all concerned:

I'm asking advice on replacing the motley stuff I have now, so I can build the N2PK VNA, and maybe a K2 later on. I do need surface-mount capability -- I can still see the lil duckpluckers ;o)

Compressed air is available for venturi-type devices.

Used/new sources are fine; low cost, while a consideration, is not all there is to it. A good tech is worth good tools, right?

TIA -- 73, Dave, N3HE

1250. Re: Soldering/desoldering station

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-30 10:31:04 UTC
From: Leon Heller <leon_heller@hotmail.com>
Message-ID: <410a2368$0$6445$cc9e4d1f@news-text.dial.pipex.com>
Source record: 24582

"David J Windisch" <davidw@copper.net> wrote in message
news:410a1f62_2@newsfeed.slurp.net...
> Hi, all concerned:
>
> I'm asking advice on replacing the motley stuff I have now, so I can build
> the N2PK VNA, and maybe a K2 later on. I do need surface-mount
> capability -- I can still see the lil duckpluckers ;o)
>
> Compressed air is available for venturi-type devices.
>
> Used/new sources are fine; low cost, while a consideration, is not all
there
> is to it. A good tech is worth good tools, right?

Metcal makes the best equipment. It's expensive, but often available on
eBay. The older STSS units take all the current MX-500 accessories, and are
the best value. I've got two of them.

Leon

1251. Re: Soldering/desoldering station

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-30 12:40:03 UTC
From: "G.Beat" <now9spamgb@no.comcast.spam.net>
Message-ID: <CkrOc.197621$JR4.152356@attbi_s54>
Source record: 24583

"David J Windisch" <davidw@copper.net> wrote in message
news:410a1f62_2@newsfeed.slurp.net...
> Hi, all concerned:
>
> I'm asking advice on replacing the motley stuff I have now, so I can build
> the N2PK VNA, and maybe a K2 later on. I do need surface-mount
> capability -- I can still see the lil duckpluckers ;o)
>
> Compressed air is available for venturi-type devices.
>
> Used/new sources are fine; low cost, while a consideration, is not all
> there
> is to it. A good tech is worth good tools, right?
>
> TIA -- 73, Dave, N3HE
>

You do not have to spend much money to get surface mount capability.
Used / surplus units from Pace, Weller, Haako, MetCal have been hitting the
market
(e,g. hamfests, eBay) as repair centers and closed down; production moved
off-shore and firms close door.

There are a few homemade systems (and the toaster oven reflow approach that
works well)

MetCal uses an RF heating approach, these tips/heaters (new) are expensive
for occasional use.
Weller's new WSL system is made in Germany and uses their "L" series tips.

I still use the Weller TCP series for much of my soldering (including some
surface mount),
even though I have a full Pace MBT 250 sitting right next to it.

w9gb

1252. Re: Soldering/desoldering station

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-30 12:42:05 UTC
From: "Harold E. Johnson" <W4ZCB@mchsi.com>
Message-ID: <xmrOc.215341$Oq2.140001@attbi_s52>
Source record: 24584

> > I'm asking advice on replacing the motley stuff I have now, so I can
build
> > the N2PK VNA, and maybe a K2 later on. I do need surface-mount
> > capability -- I can still see the lil duckpluckers ;o)
> >
So far, I've built two N2PK VNA's and have built many other boards (all
successful) with 0.025 pin spaced components. Only components are a 1 mil
tip on an Antex iron, 0.015 silver bearing solder from Radio Shack and a
headband magnifier. Oh, you also MUST have a wad of de-soldering braid.

W4ZCB

1253. Re: PLEASE READ - Internet site under legal attack by Radioshack corp.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-30 13:57:20 UTC
From: Philomena Juneslug <occasi555.nospm@wans.net>
Message-ID: <b84c6$410a53b0$d1cc5079$18663@snip.allthenewsgroups.com>
Source record: 24585
Cross-posted to: alt.radio.wktu,rec.radio.amateur,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy

"DSL" <retiredltNOSPAM@NOSPAMoptonline.net> wrote in message
news:V%aOc.18881$oE1.1782652@news4.srv.hcvlny.cv.net...
> Thank you for taking the time to read this.

(from alt.tasteless:)

"...you'll feel a slight pressure"

Saddam needs a urologist:

http://www.cnn.com/2004/WORLD/meast/07/29/saddam.ap/index.html

"Deposed Iraqi dictator Saddam Hussein suffers from a chronic prostate
infection and has refused to have a biopsy to rule out any chance he has
cancer, an Iraqi official said in an interview Thursday on Al-Jazeera
television."

--------- cut -------

Uhhhh, gee ... why would Saddam possibly object to a prostate biopsy if
he's having problems? Wouldn't *you* want a prostate exam from a
coalition forces doctor? Hey, I wonder if Lynndie England is available
with her big industrial rubber gloves?

Keith

1254. Re: UHF oscillator

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-30 14:14:21 UTC
From: ddwyer <dd@ddwyer.demon.co.uk>
Message-ID: <N4fzmUA9elCBFw8L@ddwyer.demon.co.uk>
Source record: 24586

In article <MPG.1b71c2ef544ad2099896eb@news-central.giganews.com>, John Miles <jmiles@pop.removethistomailme.net> writes
>In article <MPG.1b71c2408dc3fddc9896ea@news-central.giganews.com>,
>jmiles@pop.removethistomailme.net says...
>
>> There are two main drawbacks: (1) Any spurs from the DDS will be at
>> least 20*log(N) times worse
>
>Er, 20*log(N) dB worse, that is.
>
>-- jm
>
>---
>http://www.qsl.net/ke5fx
>Note: My E-mail address has been altered to avoid spam
>---
A minority view is that it would be possible and interesting to attempt a stable VCO first LO frequency.
The oscillator needs a stable resonator and one option is a section of rigid coax with shorted end or as a delay element (0 phase one wavelength) .
The level can be high to allow high level mixing, a varicap padded out to give just enough pulling can be considered as a phase shift element.
Employ a good buffer between the lo and the mixer.
Remember to terminate with attenuation pads to minimise reflections.
and a 70MHz first IF makes life easier, there are some useful SAW filters at 70 MHz
--
ddwyer

1255. S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-30 15:49:41 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <31rkg09gnprvh4idtll2jjdc53ghlpts43@4ax.com>
Source record: 24587
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

Hi guys,

I see in Chris Bowick's book on RF circuit design, he provides 8 quite long-winded formulas for converting between S and Y parameters and vice-versa. I'm always prone to making careless errors (particularly with signs) with these kind of equations, so I was wondering if there's a simpler, graphical method for conversion using the Smith Chart. After all, that's what it was devised for - the elimination of computational errors in such calculations.
I've tried using the vastly simpler rectangular/polar co-ordinate conversion formulas, but they don't plot correctly on the Smith Chart, it seems.
So, does anyone know of a simple graphical way to do it on the SC?

Thanks,

p.
--

"What is now proved was once only imagin'd." - William Blake, 1793.

1256. Re: Soldering/desoldering station

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-30 17:34:08 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <MPG.1b74266a3029089a9896ee@news-central.giganews.com>
Source record: 24588

In article <410a1f62_2@newsfeed.slurp.net>, davidw@copper.net says...
> Hi, all concerned:
>
> I'm asking advice on replacing the motley stuff I have now, so I can build
> the N2PK VNA, and maybe a K2 later on. I do need surface-mount
> capability -- I can still see the lil duckpluckers ;o)
>
> Compressed air is available for venturi-type devices.
>
> Used/new sources are fine; low cost, while a consideration, is not all there
> is to it. A good tech is worth good tools, right?
>
> TIA -- 73, Dave, N3HE
>
>
>

You don't need anything exotic for most surface-mount work. Like Harold
says, solder-wick is your friend. It lets you solder the fine-pitch
parts in place without worrying about bridges.

A Metcal iron is nice (I use one myself) but not really that much better
than a Weller iron costing 25% as much.

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

1257. Re: UHF oscillator

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-30 17:36:49 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <MPG.1b7427085770b93a9896ef@news-central.giganews.com>
Source record: 24589

In article <N4fzmUA9elCBFw8L@ddwyer.demon.co.uk>, dd@ddwyer.demon.co.uk says...

> A minority view is that it would be possible and interesting to attempt
> a stable VCO first LO frequency.
> The oscillator needs a stable resonator and one option is a section of
> rigid coax with shorted end or as a delay element (0 phase one
> wavelength) .
> The level can be high to allow high level mixing, a varicap padded out
> to give just enough pulling can be considered as a phase shift element.
> Employ a good buffer between the lo and the mixer.
> Remember to terminate with attenuation pads to minimise reflections.
> and a 70MHz first IF makes life easier, there are some useful SAW
> filters at 70 MHz
>

Or, for that matter, the old "huff and puff" technique could be used to frequency-lock a UHF VCO to the nearest kHz. The VCO would need good phase noise but not long-term stability, making the coax resonator idea practical.

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

1258. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-30 17:54:52 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <MXvOc.84$UN2.21@nwrddc02.gnilink.net>
Source record: 24590
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

"Paul Burridge" <pb@notthisbit.osiris1.co.uk> wrote in message
news:31rkg09gnprvh4idtll2jjdc53ghlpts43@4ax.com...
> Hi guys,
>
> I see in Chris Bowick's book on RF circuit design, he provides 8 quite
> long-winded formulas for converting between S and Y parameters and
> vice-versa. I'm always prone to making careless errors (particularly
> with signs) with these kind of equations, so I was wondering if
> there's a simpler, graphical method for conversion using the Smith
> Chart. After all, that's what it was devised for - the elimination of
> computational errors in such calculations.
> I've tried using the vastly simpler rectangular/polar co-ordinate
> conversion formulas, but they don't plot correctly on the Smith Chart,
> it seems.
> So, does anyone know of a simple graphical way to do it on the SC?
>
> Thanks,
>
> p.
> --
>
> "What is now proved was once only imagin'd." - William Blake, 1793.

Paul

I used to think I could do alot of things with Smith Charts and Z theta
Charts. I'm way out of practice, but might be able (and willing) to point
you to where you can solve the problem you now have.

Since I am not smart enough to see *exactly* whats involved with S and Y
in your post, I may be off base with this. -- Are you aware that the
admittance of an impedance can be identified by overlaying a transparent
Smith Chart over another Smith Chart with "zero" impedance overlaid on
"infinite" impedance.

Jerry

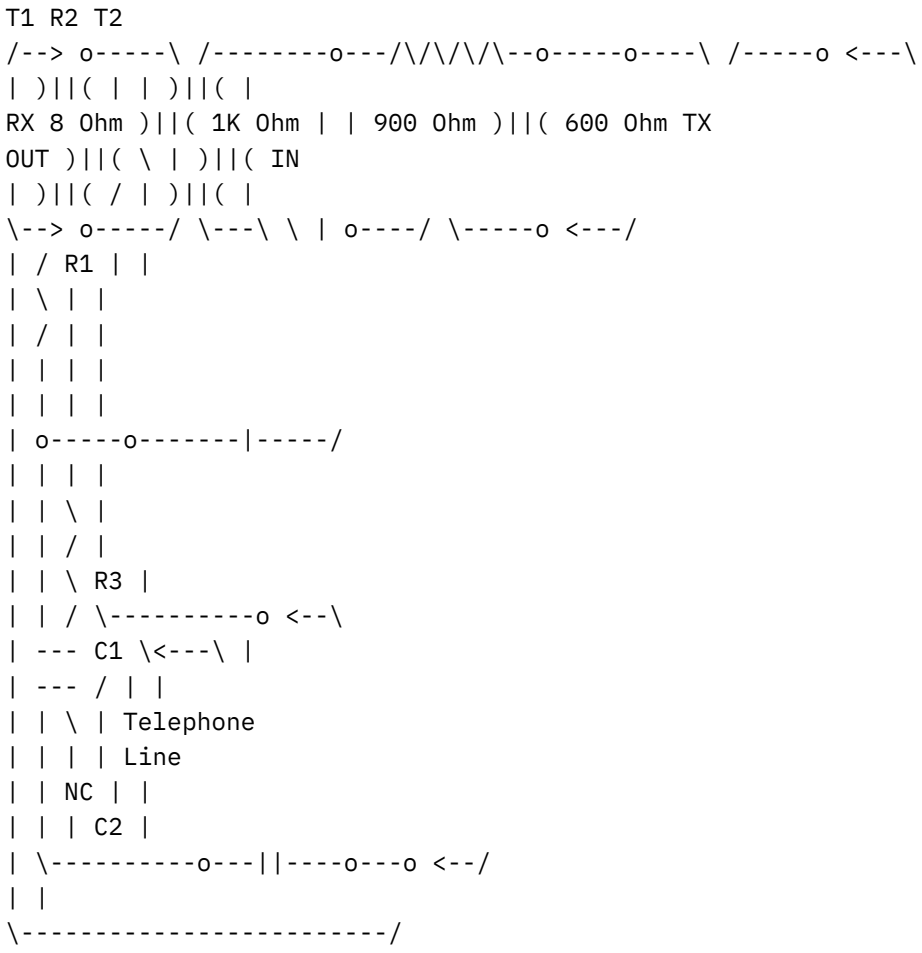
1259. PHONE-PATCHING (CORRECTION; OOPS!)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-30 18:12:04 UTC
From: Radio N6BHU <n6bhu@qsl.net>
Message-ID: <Pine.LNX.4.58.0407301103020.31060@torquay.cahuenga.com>
Source record: 24591
Cross-posted to: alt.ham-radio.am,alt.ham-radio.fm,alt.ham-radio.hf,alt.ham-radio.nocode,alt.ham-radio.ssb,alt.ham-radio.vhf-uhf,alt.radio.amateur,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.homebrew

Lo and behold, I found another text-file in my ASCII archives containing the CORRECT schematic. (The schematic previously posted has an error; C2 should connect to T1 as shown below, else the telephone line won't be properly matched, as shown in my previous posting. I should've looked it over more carefully before posting it -- sorry 'bout that!)

...Dave, N6BHU

Wheatstone Bridge Phone Patch Circuit [from the mid-70s ARRL handbook]



Parts List

T1 - 1000 Ohm / 8 Ohm audio transformer (Radio Shack 273-1380, or equiv.)
T2 - 900 Ohm / 600 Ohm audio transformer (Triad TY-301p, or equiv.)
R1, R2 - 910 Ohm, 1/2 Watt composition, or metal-film resistor
C1 - 0.04 uFd ceramic, or mica capacitor

C2 - 0.01 uFd ceramic, or mica capacitor

Sources:

Radio Shack http://www.radioshack.com
http://www.radioshack.com/product.asp?catalog%5Fname=CTLG&product%5Fid=273-1380

Digi-Key http://www.digikey.com
http://www.digikey.com/scripts/DkSearch/dksus.dll?KeywordSearch

All Electronics http://www.allelectronics.com

1260. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-30 19:11:11 UTC
From: John Larkin <jjlarkin@highSNIPlandTHIStechPLEASEnology.com>
Message-ID: <667lg0dtt8m6fb7s7l565dte545smsp4ju@4ax.com>
Source record: 24592
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

On Fri, 30 Jul 2004 16:49:41 +0100, Paul Burridge
<pb@notthisbit.osiris1.co.uk> wrote:

>Hi guys,
>
>I see in Chris Bowick's book on RF circuit design, he provides 8 quite
>long-winded formulas for converting between S and Y parameters and
>vice-versa. I'm always prone to making careless errors (particularly
>with signs) with these kind of equations, so I was wondering if
>there's a simpler, graphical method for conversion using the Smith
>Chart. After all, that's what it was devised for - the elimination of
>computational errors in such calculations.
>I've tried using the vastly simpler rectangular/polar co-ordinate
>conversion formulas, but they don't plot correctly on the Smith Chart,
>it seems.
>So, does anyone know of a simple graphical way to do it on the SC?
>
>Thanks,
>
>p.

You could write a little Basic program or an Excel atrocity.

John

1261. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-30 19:59:36 UTC
From: Jim Thompson <thegreatone@example.com>
Message-ID: <c3alg055jptec5u2ff98vv8q5n9gpija87@4ax.com>
Source record: 24593
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

On Fri, 30 Jul 2004 17:54:52 GMT, "Jerry Martes"
<j.jmartes@verizon.net> wrote:

>
>
>
>
>
>"Paul Burridge" <pb@notthisbit.osiris1.co.uk> wrote in message
>news:31rkg09gnprvh4idtll2jjdc53ghlpts43@4ax.com...
>> Hi guys,
>>
>> I see in Chris Bowick's book on RF circuit design, he provides 8 quite
>> long-winded formulas for converting between S and Y parameters and
>> vice-versa. I'm always prone to making careless errors (particularly
>> with signs) with these kind of equations, so I was wondering if
>> there's a simpler, graphical method for conversion using the Smith
>> Chart. After all, that's what it was devised for - the elimination of
>> computational errors in such calculations.
>> I've tried using the vastly simpler rectangular/polar co-ordinate
>> conversion formulas, but they don't plot correctly on the Smith Chart,
>> it seems.
>> So, does anyone know of a simple graphical way to do it on the SC?
>>
>> Thanks,
>>
>> p.
>> --
>>
>> "What is now proved was once only imagin'd." - William Blake, 1793.
>
> Paul
>
> I used to think I could do alot of things with Smith Charts and Z theta
>Charts. I'm way out of practice, but might be able (and willing) to point
>you to where you can solve the problem you now have.
>
> Since I am not smart enough to see *exactly* whats involved with S and Y
>in your post, I may be off base with this. -- Are you aware that the
>admittance of an impedance can be identified by overlaying a transparent
>Smith Chart over another Smith Chart with "zero" impedance overlaid on
>"infinite" impedance.
>

> Jerry
>

It's been a long time since I've used a Smith Chart, but the overlay
method is what I seem to remember as well.

...Jim Thompson
--
James E.Thompson, P.E.	mens
Analog Innovations, Inc.	et
Analog/Mixed-Signal ASIC's and Discrete Systems	manus
Phoenix, Arizona Voice:(480)460-2350	
E-mail Address at Website Fax:(480)460-2142	Brass Rat
http://www.analog-innovations.com	1962

I love to cook with wine. Sometimes I even put it in the food.

1262. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-30 20:36:16 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <4jyOc.854$QA5.48@nwrddc01.gnilink.net>
Source record: 24594
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

"Jim Thompson" <thegreatone@example.com> wrote in message
news:c3alg055jptec5u2ff98vv8q5n9gpija87@4ax.com...
> On Fri, 30 Jul 2004 17:54:52 GMT, "Jerry Martes"
> <j.jmartes@verizon.net> wrote:
>
> >
> >
> >
> >
> >
> >"Paul Burridge" <pb@notthisbit.osiris1.co.uk> wrote in message
> >news:31rkg09gnprvh4idtll2jjdc53ghlpts43@4ax.com...
> >> Hi guys,
> >>
> >> I see in Chris Bowick's book on RF circuit design, he provides 8 quite
> >> long-winded formulas for converting between S and Y parameters and
> >> vice-versa. I'm always prone to making careless errors (particularly
> >> with signs) with these kind of equations, so I was wondering if
> >> there's a simpler, graphical method for conversion using the Smith
> >> Chart. After all, that's what it was devised for - the elimination of
> >> computational errors in such calculations.
> >> I've tried using the vastly simpler rectangular/polar co-ordinate
> >> conversion formulas, but they don't plot correctly on the Smith Chart,
> >> it seems.
> >> So, does anyone know of a simple graphical way to do it on the SC?
> >>
> >> Thanks,
> >>
> >> p.
> >> --
> >>
> >> "What is now proved was once only imagin'd." - William Blake, 1793.
> >
> > Paul
> >
> > I used to think I could do alot of things with Smith Charts and Z theta
> >Charts. I'm way out of practice, but might be able (and willing) to
point
> >you to where you can solve the problem you now have.
> >
> > Since I am not smart enough to see *exactly* whats involved with S and
Y
> >in your post, I may be off base with this. -- Are you aware that the

> >admittance of an impedance can be identified by overlaying a transparent
> >Smith Chart over another Smith Chart with "zero" impedance overlaid on
> >"infinite" impedance.
> >
> > Jerry
> >
>
> It's been a long time since I've used a Smith Chart, but the overlay
> method is what I seem to remember as well.
>
> ...Jim Thompson
> --
> | James E.Thompson, P.E. | mens |
> | Analog Innovations, Inc. | et |
> | Analog/Mixed-Signal ASIC's and Discrete Systems | manus |
> | Phoenix, Arizona Voice:(480)460-2350 | |
> | E-mail Address at Website Fax:(480)460-2142 | Brass Rat |
> | http://www.analog-innovations.com | 1962 |
>
> I love to cook with wine. Sometimes I even put it in the food.

Jim

I'm kinda embarressed to admit that I'm not even sure what Y and S refers to. I do remember that impedances plotted on a Smith Chart will follow the lines of constant "conductance" on the transparent overlay. Maybe thats too fundamental for inclusion in this thread. But, it sure is a quick way of predicting how much shunt Xl or Xc is needed to "tune" to a more desireable impedance.

Jerry

1263. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-30 20:44:57 UTC
From: Activ8 <reply2group@ndbbm.net>
Message-ID: <1mli6dxwe59yz$.dlg@news.individual.net>
Source record: 24595
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

On Fri, 30 Jul 2004 12:59:36 -0700, Jim Thompson wrote:

> On Fri, 30 Jul 2004 17:54:52 GMT, "Jerry Martes"
> <j.jmartes@verizon.net> wrote:
>
>>
>>
>>
>>
>>
>>"Paul Burridge" <pb@notthisbit.osiris1.co.uk> wrote in message
>>news:31rkg09gnprvh4idtll2jjdc53ghlpts43@4ax.com...
>>> Hi guys,
>>>
>>> I see in Chris Bowick's book on RF circuit design, he provides 8 quite
>>> long-winded formulas for converting between S and Y parameters and
>>> vice-versa. I'm always prone to making careless errors (particularly
>>> with signs) with these kind of equations, so I was wondering if
>>> there's a simpler, graphical method for conversion using the Smith
>>> Chart. After all, that's what it was devised for - the elimination of
>>> computational errors in such calculations.
>>> I've tried using the vastly simpler rectangular/polar co-ordinate
>>> conversion formulas, but they don't plot correctly on the Smith Chart,
>>> it seems.
>>> So, does anyone know of a simple graphical way to do it on the SC?
>>>
>>> Thanks,
>>>
>>> p.
>>> --
>>>
>>> "What is now proved was once only imagin'd." - William Blake, 1793.
>>
>> Paul
>>
>> I used to think I could do alot of things with Smith Charts and Z theta
>>Charts. I'm way out of practice, but might be able (and willing) to point
>>you to where you can solve the problem you now have.
>>
>> Since I am not smart enough to see *exactly* whats involved with S and Y
>>in your post, I may be off base with this. -- Are you aware that the
>>admittance of an impedance can be identified by overlaying a transparent
>>Smith Chart over another Smith Chart with "zero" impedance overlaid on

>>"infinite" impedance.
>>
>> Jerry
>>
>
> It's been a long time since I've used a Smith Chart, but the overlay
> method is what I seem to remember as well.
>
> ...Jim Thompson

Yup and you can get one with the admittance chart already overlaid
on the impedance chart. any point plotted can be read either way and
the s-params are also directly read from either with dividers or a
ruler.

I have no clue why Paul is converting between rectangular and polar
and replotting. The point should stay put.
--
Best Regards,
Mike

1264. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-30 21:32:04 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <k2flg05dg83q9vhr08gphfq95lfs9p3f71@4ax.com>
Source record: 24596
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

On Fri, 30 Jul 2004 12:11:11 -0700, John Larkin
<jjlarkin@highSNIPlandTHIStechPLEASEnology.com> wrote:

>You could write a little Basic program or an Excel atrocity.

Indeed. And that is something I've considered. But The way Bowick
explains it, it *ought* to be possible to perform the conversion
summarily by a simple graphical method. Unfortunately, the
arithmetical method he describes only works for linear polar charts,
which of course the SC certainly isn't linear!
And the guy who suggested the 180' rotation: I reckon that's *part* of
the solution, but simply doing this alone merely converts impedances
to admittances. S-params are typically denoted in the form x+/-yj
whereas the Y-params are denoted as vector and angular co-ordinates,
so further mappings and/or translations are required following any
rotation...
Still, I'm sure someone out there will know. :-/
--

"What is now proved was once only imagin'd." - William Blake, 1793.

1265. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-30 22:04:12 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <wBzOc.241$%e2.74@nwrddc04.gnilink.net>
Source record: 24447
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

"Paul Burridge" <pb@notthisbit.osiris1.co.uk> wrote in message
news:k2flg05dg83q9vhr08gphfq95lfs9p3f71@4ax.com...
> On Fri, 30 Jul 2004 12:11:11 -0700, John Larkin
> <jjlarkin@highSNIPlandTHIStechPLEASEnology.com> wrote:
>
> >You could write a little Basic program or an Excel atrocity.
>
> Indeed. And that is something I've considered. But The way Bowick
> explains it, it *ought* to be possible to perform the conversion
> summarily by a simple graphical method. Unfortunately, the
> arithmetical method he describes only works for linear polar charts,
> which of course the SC certainly isn't linear!
> And the guy who suggested the 180' rotation: I reckon that's *part* of
> the solution, but simply doing this alone merely converts impedances
> to admittances. S-params are typically denoted in the form x+/-yj
> whereas the Y-params are denoted as vector and angular co-ordinates,
> so further mappings and/or translations are required following any
> rotation...
> Still, I'm sure someone out there will know. :-/
> --
>
> "What is now proved was once only imagin'd." - William Blake, 1793.

Paul

I realize that I dont understand what needs to be done. I'm just too far
out of touch with technology. But, is there any chance that a Ztheta Chart
overlay would be of any assistance?? Properly used, the combination of
Smith and Ztheta can be a usefull tool. That overlay provides the impedance
magnitude with its angle, at a glance, for all R+/- j X.

Jerry

Jerry

1266. Re: PHONE-PATCHING (CORRECTION; OOPS AGAIN!)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-30 22:06:22 UTC
From: Radio N6BHU <n6bhu@qsl.net>
Message-ID: <Pine.LNX.4.58.0407301442441.5649@torquay.cahuenga.com>
Source record: 24448
Cross-posted to: alt.ham-radio.am,alt.ham-radio.fm,alt.ham-radio.hf,alt.ham-radio.nocode,alt.ham-radio.ssb,alt.ham-radio.vhf-uhf,alt.radio.amateur,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.homebrew

Bummer! R3's a 1.5K Ohm pot. (I've got to go easy on the margaritas at lunch time!)

...Dave, N6BHU

On Fri, 30 Jul 2004, Bob wrote:

> You had better check your parts list, whats R3???
>
> Bob

1267. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-30 22:52:22 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <isjlg0p10gtk7nr4poto878il3rf7ojj7k@4ax.com>
Source record: 24449
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

On Fri, 30 Jul 2004 22:04:12 GMT, "Jerry Martes"
<j.jmartes@verizon.net> wrote:

> Paul
>
> I realize that I dont understand what needs to be done. I'm just too far
>out of touch with technology. But, is there any chance that a Ztheta Chart
>overlay would be of any assistance?? Properly used, the combination of
>Smith and Ztheta can be a usefull tool. That overlay provides the impedance
>magnitude with its angle, at a glance, for all R+/- j X.

Jerry, I appreciate your tip. But that's not actually what I'm trying
to ascertain. The complete SC is hard enough to read as it is without
overlaying a spherical grid on it! Your idea might well work, don't
get me wrong, but I just need to know if S-Y mappings can be carried
out with the Smith Chart *alone.*

Thanks,

Paul
--

"What is now proved was once only imagin'd." - William Blake, 1793.

1268. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-30 23:01:13 UTC
From: John Larkin <jjlarkin@highSNIPlandTHIStechPLEASEnology.com>
Message-ID: <hhklg0d1e3fecafd6umjb9sq7g7retbqu7@4ax.com>
Source record: 24450
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

On Fri, 30 Jul 2004 22:32:04 +0100, Paul Burridge
<pb@notthisbit.osiris1.co.uk> wrote:

>On Fri, 30 Jul 2004 12:11:11 -0700, John Larkin
><jjlarkin@highSNIPlandTHIStechPLEASEnology.com> wrote:
>
>>You could write a little Basic program or an Excel atrocity.
>
>Indeed. And that is something I've considered. But The way Bowick
>explains it, it *ought* to be possible to perform the conversion
>summarily by a simple graphical method. Unfortunately, the
>arithmetical method he describes only works for linear polar charts,
>which of course the SC certainly isn't linear!
>And the guy who suggested the 180' rotation: I reckon that's *part* of
>the solution, but simply doing this alone merely converts impedances
>to admittances. S-params are typically denoted in the form x+/-yj
>whereas the Y-params are denoted as vector and angular co-ordinates,
>so further mappings and/or translations are required following any
>rotation...
>Still, I'm sure someone out there will know. :-/

Semiconductor s-params are usually listed as magnitude and angle, with
the mag sometimes in pure scalar form, or sometimes in dB. A universal
conversion program would be nice, espacially if it included equivalent
reactance, capacitance, inductance, stuff like that.

John

1269. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-30 23:29:42 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10glmf6regc7re4@corp.supernews.com>
Source record: 24451
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

I sense some confusion about s and y parameters. S parameters aren't impedances -- they're dimensionless transmission or reflection coefficients. They do have a real and imaginary part (or magnitude and angle) like an impedance, but that's as far as the similarity goes. You can overlay a Smith chart on a polar plot of reflection coefficient (e.g., s11) and directly read the normalized impedance which causes that reflection coefficient. But what you read from the Smith chart isn't the the reflection coefficient -- that is, it's not the s parameter. When you reverse the Smith chart, you get the admittance causing the reflection coefficient, but this still isn't a y parameter. If you invert an s parameter, you still have a dimensionless number.

Y (admittance) parameters are a different critter, are measured differently than s parameters, and have the dimensions of admittance. Transformation from s to y or vice-versa isn't simple. For example,

y11 = {[(1 - s11)(1 + s22) + s12s21] / [(1 + s11)(1 + s22) - s12s21]}/Z0

(See, for example, Gonzalez, _Microwave Transistor Amplifiers, Analysis and Design_.) From this you can see that in order to find y11, you not only have to know s11, but also s12, s21, and s22. So it's simply not possible to convert from y11 to s11 if s11 is all you know.

Roy Lewallen, W7EL

1270. Re: Stability of huff & puff.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-31 00:47:35 UTC
From: Richard Hosking <richardh@iinet.net.au>
Message-ID: <410aed6d$0$16339$5a62ac22@per-qv1-newsreader-01.iinet.net.au>
Source record: 24452

I used a micro to count the freq to 10Hz resolution instead of a shift register. The micro drives the LCD freq display, but also calculates any drift by comparing the current count to the "locked" count. It would output a pulse which was integrated by a loop filter/voltage follower. I am not sure about the math involved but in practice the loop behaved like a PLL and would oscillate with 10-20 Hz variations or wander about with some loop filter combinations, particularly if there was no damping in the loop. If you counted to 1 Hz resolution, then I presume you could get 1 Hz resolution in the loop. In practice this means counting over a long period (1 sec) and I suspect short term variations in the VFO freq (jumps or phase noise) could could the loop to lose lock or behave strangely, so the quality of the oscillator would be the limiting factor. It might be worth looking at one of the old HP sig gen circuits (eg 8640B) I think they used the "huff and puff" scheme to stabilize the oscillator.

Richard

Richard wrote:
> "Hans Summers" <hans.summers@tudor.com> wrote in message
> news:2mruuoFps0v3U1@uni-berlin.de...
>
>
>>In conclusion I'd say you have no problems with 20Hz IF bandwidth and a
>>decent Huff Puff stabilised oscillator.
>
>
> Thanks.
>
> One question: For a 2.00 - 2.50 Mhz oscillator, what, do you think, using
> huff & puff, would be the minimum tuning jump you could acheive? Could you
> acheive a 5hz jump or less? Rich.
>

1271. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-31 01:02:03 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <fcCOc.467$Je5.431@nwrddc03.gnilink.net>
Source record: 24453
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

"Paul Burridge" <pb@notthisbit.osiris1.co.uk> wrote in message
news:isjlg0p10gtk7nr4poto878il3rf7ojj7k@4ax.com...
> On Fri, 30 Jul 2004 22:04:12 GMT, "Jerry Martes"
> <j.jmartes@verizon.net> wrote:
>
> > Paul
> >
> > I realize that I dont understand what needs to be done. I'm just too
far
> >out of touch with technology. But, is there any chance that a Ztheta
Chart
> >overlay would be of any assistance?? Properly used, the combination of
> >Smith and Ztheta can be a usefull tool. That overlay provides the
impedance
> >magnitude with its angle, at a glance, for all R+/- j X.
>
> Jerry, I appreciate your tip. But that's not actually what I'm trying
> to ascertain. The complete SC is hard enough to read as it is without
> overlaying a spherical grid on it! Your idea might well work, don't
> get me wrong, but I just need to know if S-Y mappings can be carried
> out with the Smith Chart *alone.*
>
> Thanks,
>
> Paul
> --
>
> "What is now proved was once only imagin'd." - William Blake, 1793.

Paul

I just now learned about S and Y parameters. I learned that they are WAY
too complex for me to understand. I think it *is* time for me to apologize
for commenting when I could have been more help by remaining silent.

Jerry

1272. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-31 01:21:21 UTC
From: Activ8 <reply2group@ndbbm.net>
Message-ID: <u3p5fxshq9u1$.dlg@news.individual.net>
Source record: 24454
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

On Fri, 30 Jul 2004 22:32:04 +0100, Paul Burridge, wrote:

> On Fri, 30 Jul 2004 12:11:11 -0700, John Larkin
> <jjlarkin@highSNIPlandTHIStechPLEASEnology.com> wrote:
>
>>You could write a little Basic program or an Excel atrocity.

VB is probably the more atrocious of the two ;)
>
> Indeed. And that is something I've considered. But The way Bowick
> explains it, it *ought* to be possible to perform the conversion
> summarily by a simple graphical method. Unfortunately, the
> arithmetical method he describes only works for linear polar charts,
> which of course the SC certainly isn't linear!
> And the guy who suggested the 180' rotation: I reckon that's *part* of
> the solution, but simply doing this alone merely converts impedances
> to admittances. S-params are typically denoted in the form x+/-yj

Bullshit. it's magnitude and angle. You plot Z = R + jX on the
friggin chart and measure the distance from the origin to get
magnitude. You measure the angle to get.. angle. Imagine that.

If you do mag = sqrt(R^2 + X^2) and angle = atan(X/R) and plot it,
you'll see that no conversion was necessary at all.

> whereas the Y-params are denoted as vector and angular co-ordinates,

More BS.

> so further mappings and/or translations are required following any
> rotation...
> Still, I'm sure someone out there will know. :-/

--
Best Regards,
Mike

1273. FA: Two 110 Watt High Mass soldering irons w/station

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-31 01:48:50 UTC
From: Garyh <webpub@fastmail.ca>
Message-ID: <EUCOc.85$ZJ2.27@bignews2.bellsouth.net>
Source record: 24455

I have two high mass soldering irons with a station. They work nice for soldering those
difficult items such as coax connectors or connections to equipment enclosures.

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=5712753878

1274. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-31 02:16:11 UTC
From: John Larkin <jjlarkin@highlandSNIPtechTHISnologyPLEASE.com>
Message-ID: <450mg01j0l3fqttp0n5e8b6peeatf055se@4ax.com>
Source record: 24456
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

On Fri, 30 Jul 2004 21:21:21 -0400, Activ8 <reply2group@ndbbm.net>
wrote:

>On Fri, 30 Jul 2004 22:32:04 +0100, Paul Burridge, wrote:
>
>> On Fri, 30 Jul 2004 12:11:11 -0700, John Larkin
>> <jjlarkin@highSNIPlandTHIStechPLEASEnology.com> wrote:
>>
>>>You could write a little Basic program or an Excel atrocity.
>
>VB is probably the more atrocious of the two ;)

Garbage, of course. But PowerBasic is cool.

John

1275. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-31 04:51:41 UTC
From: Rex Allers <rexa@sonic.net>
Message-ID: <uu6mg0lc8pl6b2uc61iigiiob4qj9qjj05@4ax.com>
Source record: 24457
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

On Fri, 30 Jul 2004 16:29:42 -0700, Roy Lewallen <w7el@eznec.com> wrote:

>I sense some confusion about s and y parameters. S parameters aren't
>impedances -- they're dimensionless transmission or reflection
>coefficients.
[etc.]

>Roy Lewallen, W7EL

Roy,

Thanks for another well informed and sensible reply.

Paul,

Why limit yourself to going from S to Y parameters. Might as well go for H and Z parameters too.

If possible, find yourself a copy of HP Application Note 154, April, 1972 "S-Parameter Design". In the first few paragraphs they point out that H, Y, and Z parameters are defined by voltages and currents.

Quoting:

"The important thing to note here is that both open and short circuits are essential for making these measurements.

Moving to higher and higher frequencies, some problems arise:
1. Equipment is not readily available to measure total voltage and total current at the ports of the network.
2. Short and open circuits are difficult to achieve over a broad band of frequencies.
3. Active devices, such as transistors and tunnel diodes, very often will not be short or open circuit stable."

So, since the 60's, RF designers have been using S-parameters to characterize devices and circuits. They are based on reflection and transmission in a 50 ohm system. They are measurable. Why do you feel you want to use Y parameters? (Why-oh Y-oh?)

1276. Rexon RV100 schematics ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-31 08:46:59 UTC
From: Fred Bartoli <fred._canxxxel_this_bartoli@RemoveThatAlso_free.fr_AndThisToo>
Message-ID: <410b5c52$0$27805$626a14ce@news.free.fr>
Source record: 24458

Hi all,
I have a Rexon RV100 handheld VHF that's showing it's age.
Anyone have a schematics, or knows where to find it ?

I also have an ALAN CT145 that seems to use the same electronics, so this schematics may be good too.

--
Thanks,
Fred.

1277. Help to find Practical Wireless Article

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-31 09:37:05 UTC
From: ronayling@hotmail.com
Message-ID: <921a5e96.0407310137.1638b4d8@posting.google.com>
Source record: 24459

Hi, I'm trying to locate a PW article, it would be about 1958-1965 I think it was called "An 11 valve Communications Receiver" It was unusual in as much as it had a manufactured rotary Coil pack in the front end" I really would appreciate a copy/scan of it if possible, thanks from Ron g3yuh.....

1278. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-31 10:22:59 UTC
From: John Woodgate <jmw@jmwa.demon.contraspam.yuk>
Message-ID: <aVXDDCBDM3CBFwcK@jmwa.demon.co.uk>
Source record: 24460
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

I read in sci.electronics.design that Paul Burridge
<pb@notthisbit.osiris1.co.uk> wrote (in <k2flg05dg83q9vhr08gphfq95lfs9p3
f71@4ax.com>) about 'S - Y Parameter conversion with Smith Chart', on
Fri, 30 Jul 2004:
>S-params are typically
>denoted in the form x+/-yj whereas the Y-params are denoted as vector
>and angular co-ordinates, so further mappings and/or translations are
>required following any rotation...

I don't know which way you want to convert, but the conversion from
magnitude and angle to complex Cartesian co-ordinates is:

x = mag*cos(angle), y = mag*sin(angle)

Be careful of the signs of sin and cos if angle is negative. sin is
negative and cos is positive. You can see this if you draw a simple
diagram of x and y axes.

To convert the other way,

mag = sqrt(x^2 + y^2), angle =arctan(y/x).

This isn't difficult mathematics in these days of scientific
calculators, but you do need to be careful about signs, AND check that
the result is credible: if it isn't, you probably made a keying error.

For example, when you calculate angle, then calculate its sin and cos,
to check with the original data.
--
Regards, John Woodgate, OOO - Own Opinions Only.
The good news is that nothing is compulsory.
The bad news is that everything is prohibited.
http://www.jmwa.demon.co.uk Also see http://www.isce.org.uk

1279. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-31 10:48:37 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <hstmg0lv7e1n0t0066mn4gun9076lsnpct@4ax.com>
Source record: 24461
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

On Sat, 31 Jul 2004 04:51:41 GMT, Rex Allers <rexa@sonic.net> wrote:

>On Fri, 30 Jul 2004 16:29:42 -0700, Roy Lewallen <w7el@eznec.com> wrote:
>
>>I sense some confusion about s and y parameters. S parameters aren't
>>impedances -- they're dimensionless transmission or reflection
>>coefficients.
>[etc.]
>
>>Roy Lewallen, W7EL
>
>Roy,
>
>Thanks for another well informed and sensible reply.

Hear! Hear! Thank God there are still some folks here who know what
they're talking about.

[snip]
>So, since the 60's, RF designers have been using S-parameters to
>characterize devices and circuits. They are based on reflection and
>transmission in a 50 ohm system. They are measurable. Why do you feel
>you want to use Y parameters? (Why-oh Y-oh?)

I agree entirely, Rex. I'd much sooner use scattering parameters alone
for the reasons given in your post. The only flY in the ointment is
that some datasheets only provide Y-params and when those times arise
one needs to be able to convert between the two. Now it transpires
from what Roy has stated that there is no feasible way to convert the
two using the Smith Chart. That's fine; at least I know I'm not doing
all that mathematical manipulation unnecessarily. John L's suggestion
of writing a routine to do the fiddly bits now seems the most likely
solution. Should only take about a line-and-a-half of C++.
Thanks, both.

--

"What is now proved was once only imagin'd." - William Blake, 1793.

1280. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-31 10:55:03 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <k8umg0l8u45p8m8qi8cqp73tud4t0jpjsc@4ax.com>
Source record: 24462
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

On Fri, 30 Jul 2004 21:21:21 -0400, Activ8 <reply2group@ndbbm.net>
wrote:

>Bullshit. it's magnitude and angle. You plot Z = R + jX on the
>friggin chart and measure the distance from the origin to get
>magnitude. You measure the angle to get.. angle. Imagine that.
>
>If you do mag = sqrt(R^2 + X^2) and angle = atan(X/R) and plot it,
>you'll see that no conversion was necessary at all.

I *have* done the maths and plotted it. That's the whole point of the
original question. I can only assume you didn't understand the
original point or else you're incapable of expressing yourself
clearly. If you don't have anything useful to contribute to the
threads I start then I'd be grateful if you just kept your views to
yourself. There was a time when I valued your input but it seems those
days are over.
'Bye, Mike.

--

"What is now proved was once only imagin'd." - William Blake, 1793.

1281. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-31 11:01:16 UTC
From: John Woodgate <jmw@jmwa.demon.contraspam.yuk>
Message-ID: <6lYL$NB8v3CBFw7Y@jmwa.demon.co.uk>
Source record: 24463
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

I read in sci.electronics.design that Jerry Martes
<j.jmartes@verizon.net> wrote (in <fcCOc.467$Je5.431@nwrddc03.gnilink.ne
t>) about 'S - Y Parameter conversion with Smith Chart', on Sat, 31 Jul
2004:
> I just now learned about S and Y parameters. I learned that they are
>WAY too complex for me to understand. I think it *is* time for me to
>apologize for commenting when I could have been more help by remaining
>silent.

I suspect that in fact they aren't too complex for you to understand.
There are lots of over-complicated explanations around. The Y
(admittance) parameters relate the input and output currents to the
input and output voltages, using the basic equation (Ohm's Law V = IR
inverted) I = VY.

Because there is internal feedback and feed-forward inside the
transistor, the output voltage has an (unwanted, usually) effect on the
input current and the input voltage has a wanted effect on the output
current. For this we get two not very difficult equations:

Iin = VinYin + VoutYfeedback

Iout = Vin Yfeedforward + VoutYout

The suffixes are often replaced by two numbers, where 1 means input and
2 means output.

I in = I1, Vin = V1, Iout = I2, Vout = V2.

Yin = Y11, Yfeedback = Y12, Yfeedforward = Y21, Yout = Y22.

S parameters deal with how well the input and output impedances match a
specified characteristic impedance, usually 50 ohms, and are based on
incident and reflected powers.

In the general case, the possibility appears to be allowed of applying
power at the output as well as, or instead of, the input. Normally, of
course, this isn't the case; the 'output power' flows out of the device
and is what you want!

Pina is the power applied to the input and Pinr is the power reflected
(if the input impedance doesn't match the chosen characteristic
impedance). Pouta is the power produced (or applied) at the output and
Poutr is the reflected power at the output (if there is a mismatch).

Using the numbers 1 and 2 as explained above:

Pinr = S11Pina + S12Pouta

Poutr = S21Pina + S22Pouta

Again, these are not very difficult. However, some of the calculations using them can be a bit more complicated, but don't use any mathematical concepts more advanced that square roots, sin, cos and tan, and x + jy.

There is a paper in Electronics, October 16 1967, 'Quick amplifier design with scattering parameters' by William H Froehner (then of TI), which gives a lot of useful information, and a reference to a previous, simpler paper. I only have a monochrome photocopy, and some of the diagrams use colour, but it may be possible to retrieve the original through a library service.
--
Regards, John Woodgate, OOO - Own Opinions Only.
The good news is that nothing is compulsory.
The bad news is that everything is prohibited.
http://www.jmwa.demon.co.uk Also see http://www.isce.org.uk

1282. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-31 11:03:31 UTC
From: John Woodgate <jmw@jmwa.demon.contraspam.yuk>
Message-ID: <iVXNDaBDy3CBFwbV@jmwa.demon.co.uk>
Source record: 24464
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

I read in sci.electronics.design that John Larkin <jjlarkin@highSNIPland
THIStechPLEASEnology.com> wrote (in <hhklg0d1e3fecafd6umjb9sq7g7retbqu7@
4ax.com>) about 'S - Y Parameter conversion with Smith Chart', on Fri,
30 Jul 2004:
>A universal
>conversion program would be nice, espacially if it included equivalent
>reactance, capacitance, inductance, stuff like that.

It might be nice, but it's dumbing down the subject, and anyone using s-
parameters for real had better *understand* what he/she is doing,
otherwise any success would be a pure fluke.
--
Regards, John Woodgate, OOO - Own Opinions Only.
The good news is that nothing is compulsory.
The bad news is that everything is prohibited.
http://www.jmwa.demon.co.uk Also see http://www.isce.org.uk

1283. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-31 11:25:26 UTC
From: John Woodgate <jmw@jmwa.demon.contraspam.yuk>
Message-ID: <ZKuzUkBmG4CBFwsp@jmwa.demon.co.uk>
Source record: 24465
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

I read in sci.electronics.design that Roy Lewallen <w7el@eznec.com>
wrote (in <10glmf6regc7re4@corp.supernews.com>) about 'S - Y Parameter
conversion with Smith Chart', on Fri, 30 Jul 2004:

>Transformation from s to y or vice-versa isn't simple. For example,
>
>y11 = {[(1 - s11)(1 + s22) + s12s21] / [(1 + s11)(1 + s22) - s12s21]}/Z0

It doesn't look too simple written in ASCII, but it only uses addition,
subtraction, multiplication and division, with brackets [1]. It's a bit
easier to understand if you get rid of the double division by moving Z0
up-front, and write out the remaining division as a fraction:

$$y11 = Z0 * \frac{(1 - s11)*(1 + s22) + s12*s21}{(1 + s11)*(1 + s22) - s12*s21}$$

[1] OK, you need a few basics of phasor arithmetic:

If S is a phasor = magS,angleS and T is a phasor = magT, angleT, then:

S + T = (magS + magT),(angleS + angleT)

S - T = (magS - magT),(angleS - angleT)

S*T = (magS*magT),(angleS + angleT)

S/T = (magS/magT),(angleS - angleT)

To convert dBmagS in dB to magS as a number, magS = 10^(dBmagS/10). (/10
because the equations are about power, not voltage or current.
--
Regards, John Woodgate, OOO - Own Opinions Only.
The good news is that nothing is compulsory.
The bad news is that everything is prohibited.
http://www.jmwa.demon.co.uk Also see http://www.isce.org.uk

1284. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-31 11:28:36 UTC
From: John Woodgate <jmw@jmwa.demon.contraspam.yuk>
Message-ID: <TqOxcwBkJ4CBFwOc@jmwa.demon.co.uk>
Source record: 24466
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

I read in sci.electronics.design that Rex Allers <rexa@sonic.net> wrote
(in <uu6mg0lc8pl6b2uc61iigiiob4qj9qjj05@4ax.com>) about 'S - Y Parameter
conversion with Smith Chart', on Sat, 31 Jul 2004:

>Why limit yourself to going from S to Y parameters. Might as well go for
>H and Z parameters too.

With unlimited time, go the whole hog and do K, A and B parameters as
well! (;-)

I suppose there is an inverse-S parameter set (T-parameters?) as well.
Let us hope that there aren't any more!
--
Regards, John Woodgate, OOO - Own Opinions Only.
The good news is that nothing is compulsory.
The bad news is that everything is prohibited.
http://www.jmwa.demon.co.uk Also see http://www.isce.org.uk

1285. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-31 11:46:31 UTC
From: Activ8 <reply2group@ndbbm.net>
Message-ID: <1t4nb5b0fdjp$.dlg@news.individual.net>
Source record: 24467
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

On Sat, 31 Jul 2004 11:55:03 +0100, Paul Burridge wrote:

> On Fri, 30 Jul 2004 21:21:21 -0400, Activ8 <reply2group@ndbbm.net>
> wrote:
>
>>Bullshit. it's magnitude and angle. You plot Z = R + jX on the
>>friggin chart and measure the distance from the origin to get
>>magnitude. You measure the angle to get.. angle. Imagine that.
>>
>>If you do mag = sqrt(R^2 + X^2) and angle = atan(X/R) and plot it,
>>you'll see that no conversion was necessary at all.
>
> I *have* done the maths and plotted it. That's the whole point of the
> original question. I can only assume you didn't understand the
> original point or else you're incapable of expressing yourself
> clearly.

I understand that you don't understand that you can read Y, Z, and S
params directly off the chart. The only time you need the
conversions is if you don't have a vhart.

here's your OP:

"I see in Chris Bowick's book on RF circuit design, he provides 8
quite
long-winded formulas for converting between S and Y parameters and
vice-versa. I'm always prone to making careless errors (particularly
with signs) with these kind of equations, so I was wondering if
there's a simpler, graphical method for conversion using the Smith
Chart. After all, that's what it was devised for - the elimination
of
computational errors in such calculations.
I've tried using the vastly simpler rectangular/polar co-ordinate
conversion formulas, but they don't plot correctly on the Smith
Chart,
it seems.
So, does anyone know of a simple graphical way to do it on the SC?"

So turn to page 106 and notice that an S param is plotted and if the
light and your eyes are good enough, you'll see that the point is
also labeled 2 + j1.5

Now what's with the learning disability?

> If you don't have anything useful to contribute to the
> threads

I just did. Twice. Don't jump my ass just because what you heard is
not what you wanted to hear.

> I start then I'd be grateful if you just kept your views to
> yourself. There was a time when I valued your input but it seems those
> days are over.
> 'Bye, Mike

Then maybe I should charge you for my input.

--
Best Regards,
Mike

1286. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-31 11:53:23 UTC
From: Activ8 <reply2group@ndbbm.net>
Message-ID: <9np034j13fct$.dlg@news.individual.net>
Source record: 24468
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

On Sat, 31 Jul 2004 12:01:16 +0100, John Woodgate wrote:
<snip>
>
> There is a paper in Electronics, October 16 1967, 'Quick amplifier
> design with scattering parameters' by William H Froehner (then of TI),
> which gives a lot of useful information, and a reference to a previous,
> simpler paper. I only have a monochrome photocopy, and some of the
> diagrams use colour, but it may be possible to retrieve the original
> through a library service.

Motorola also has a couple ANs on "amplifier" "design" and
"impedance matching". Keywords would be those quoted above and
"Linvill".
--
Best Regards,
Mike

1287. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-31 11:58:28 UTC
From: Activ8 <reply2group@ndbbm.net>
Message-ID: <dyryw3fq7wwe.dlg@news.individual.net>
Source record: 24469
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

On Sat, 31 Jul 2004 11:48:37 +0100, Paul Burridge wrote:

> On Sat, 31 Jul 2004 04:51:41 GMT, Rex Allers <rexa@sonic.net> wrote:
>
>>On Fri, 30 Jul 2004 16:29:42 -0700, Roy Lewallen <w7el@eznec.com> wrote:
>>
>>>I sense some confusion about s and y parameters. S parameters aren't
>>>impedances -- they're dimensionless transmission or reflection
>>>coefficients.
>>[etc.]
>>
>>>Roy Lewallen, W7EL
>>
>>Roy,
>>
>>Thanks for another well informed and sensible reply.
>
> Hear! Hear! Thank God there are still some folks here who know what
> they're talking about.
>
> [snip]
>>So, since the 60's, RF designers have been using S-parameters to
>>characterize devices and circuits. They are based on reflection and
>>transmission in a 50 ohm system. They are measurable. Why do you feel
>>you want to use Y parameters? (Why-oh Y-oh?)
>
> I agree entirely, Rex. I'd much sooner use scattering parameters alone
> for the reasons given in your post. The only flY in the ointment is
> that some datasheets only provide Y-params and when those times arise
> one needs to be able to convert between the two. Now it transpires
> from what Roy has stated that there is no feasible way to convert the
> two using the Smith Chart. That's fine; at least I know I'm not doing
> all that mathematical manipulation unnecessarily. John L's suggestion
> of writing a routine to do the fiddly bits now seems the most likely
> solution. Should only take about a line-and-a-half of C++.
> Thanks, both.

Uh, I wrote the code and only implemented some of the derived
classes and it's way more code than that.
--
Best Regards,
Mike

1288. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-31 12:18:19 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <f53ng0ttgfmqv2b2c0eub7g5nb7sdrrjom@4ax.com>
Source record: 24470
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

On Sat, 31 Jul 2004 07:46:31 -0400, Activ8 <reply2group@ndbbm.net>
wrote:

The revelant snippet:

>So, does anyone know of a simple graphical way to do it on the SC?"

>So turn to page 106 and notice that an S param is plotted and if the
>light and your eyes are good enough, you'll see that the point is
>also labeled 2 + j1.5

Well so? Since you think you know better than everyone else here,
perhaps you'd like to tell us how to convert this S-parameter, plotted
on the chart as you say as 2+j1.5 to its Y-parameter equivalent
without using the conversion formulas shown on P.107? For the
avoidance of doubt: show us how you would derive the equivalent
Y-parameter for 2+j1.5 by the use of the Chart alone.

>I just did. Twice. Don't jump my ass just because what you heard is
>not what you wanted to hear.

I jumped on your "ass" because every follow-up you make lately seems
to start with "Bullshit" and that's not a constructive way to
contribute by any definiton.

>> I start then I'd be grateful if you just kept your views to
>> yourself. There was a time when I valued your input but it seems those
>> days are over.
>> 'Bye, Mike
>
>Then maybe I should charge you for my input.

Fine. I'll send you a capacitor for the purpose. 1pF ought to cover
it.

--

"What is now proved was once only imagin'd." - William Blake, 1793.

1289. Home Brew Bug key?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-31 12:55:37 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2n1jatFrj8upU2@uni-berlin.de>
Source record: 24471
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

Can anyone direct me to a published design (URL?) for
manufacturing your own mechanical bug key?

1290. Re: Aluminium Foil as basis of tuning capacitors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-31 12:56:46 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2n1jd6FqjpnpU1@uni-berlin.de>
Source record: 24472

"Airy R. Bean" <me@privacy.net> wrote in message
news:2n1jasFrj8upU1@uni-berlin.de...
> Has anyone experimented with making up large air-spaced
> capacitors for ATU use out of Aluminium Foil?
>
> Obviously some stiffening frame would be needed for each piece of
> foil, and that frame could then serve to enforce separation
> between plates.
>
> Also, anyone played around with variable capacitors when the
> meshing mechanism is linear rather than rotary? I envisage a
> fine feed using, say, 0BA threaded studding.
>
> What I have in mind is an L-Match underneath the proposed
> 20m Vertical Antenna (q.v.), remote controlled from the shack by
> 20-foot long Nylon rods, with the turns-counters actually being in the
> shack.
>
>
>

1291. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-31 13:13:05 UTC
From: Activ8 <reply2group@ndbbm.net>
Message-ID: <icb2kderukl5.dlg@news.individual.net>
Source record: 24473
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

On Sat, 31 Jul 2004 13:18:19 +0100, Paul Burridge wrote:

> On Sat, 31 Jul 2004 07:46:31 -0400, Activ8 <reply2group@ndbbm.net>
> wrote:
>
> The revelant snippet:
>
>>So, does anyone know of a simple graphical way to do it on the SC?"
>
>>So turn to page 106 and notice that an S param is plotted and if the
>>light and your eyes are good enough, you'll see that the point is
>>also labeled 2 + j1.5
>
> Well so?

So you replied before I could add to my last post, but...

> Since you think you know better than everyone else here,

I haven't contradicted anything that was said other than that which
you've said and no one has bothered to correct me on anything. Are
you also delusional? I should however take the opportunity to point
out that John Woodgate also mentioned that polar conversion, but he
did mention that it was for cartesian coords, which doesn't apply
to your current quandry.

notice that you alluded to using polar/rect conversions? That works
for finding going between admittance (mag, angle) and
conductance/suseptance. My head was still in the cartesian plane but
I can see why it didn't work for you.

BTW, I think if the data sheet gives Y params, I'd use 'em unless I
had another reason to convert to S-Params.

> perhaps you'd like to tell us how to convert this S-parameter, plotted
> on the chart as you say as 2+j1.5

2 + j1.5 is not an S-param it's a Y-param

> to its Y-parameter equivalent

You mean its reflection coefficient. Its magnitude is the length of
the line and its angle is, again, the angle. No conversion
necessary, it's a graphical solution. That's what you wanted and
that's what you got.

> without using the conversion formulas shown on P.107?

Did I say I could? ... Aside from my initial knee jerk polar/rect
conversion.

Those eqs look like the were derived from eqs for circles.

> For the
> avoidance of doubt: show us how you would derive the equivalent
> Y-parameter for 2+j1.5 by the use of the Chart alone.

You asked for a graphical solution and you got it. Twice or so.
>
>>I just did. Twice. Don't jump my ass just because what you heard is
>>not what you wanted to hear.
>
> I jumped on your "ass" because every follow-up you make lately seems
> to start with "Bullshit" and that's not a constructive way to
> contribute by any definiton.

No, only that one post and I had to use the term because you've had
enough time to memorize that book word for word and yet you insist
on confusing basic things with statements like:

"S-params are typically denoted in the form x+/-yj whereas the
Y-params are denoted as vector and angular co-ordinates"

Also, the post started with the abrev, "VB", not "bullshit".

>
>>> I start then I'd be grateful if you just kept your views to
>>> yourself. There was a time when I valued your input but it seems those
>>> days are over.
>>> 'Bye, Mike
>>
>>Then maybe I should charge you for my input.
>
> Fine. I'll send you a capacitor for the purpose. 1pF ought to cover
> it.

Well, at least you'll have attached *some* value to it. Do you think
I can use it to reduce the Miller capacitance seen at the base?
Hmmm... "cap", "charge", and "input" in 2 lines. Sounds like an
electronics discussion. I thought you said that wasn't allowed here
in sed.
--
Best Regards,
Mike

1292. Re: Home Brew Bug key?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-31 13:54:10 UTC
From: Frank Turner-Smith G3VKI <g3vki@turner-smith.co.uk>
Message-ID: <2n1mn7Frqsf8U3@uni-berlin.de>
Source record: 24474
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

"Airy R. Bean, village idiot" <me@privacy.net> scrawled drunkenly in message
news:2n1jatFrj8upU2@uni-berlin.de...
> Can anyone direct me to a published design (URL?) for
> manufacturing your own mechanical bug key?
>
Why do you need that? Your CB licence doesn't allow the use of CW, good
buddy.
...(_!_)...

1293. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-31 14:33:29 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <fmang0t7fe8f7ebatbbvamamg7s927narg@4ax.com>
Source record: 24475
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

On Sat, 31 Jul 2004 09:13:05 -0400, Activ8 <reply2group@ndbbm.net>
wrote:

[yet more unnecessary verbiage snipped]

So you could have saved a lot of bandwidth and me a lot of valuable
time by just simply stating "no it's not possible to perform a summary
translation between S and Y parameters by mappings on the Smith Chart"
and we could all have got on with our lives. Thanks for unnecessarily
dragging out the discussion yet adding nothing to it - oh and the
gratuitous insults as well, of course.

>>>Then maybe I should charge you for my input.
>>
>> Fine. I'll send you a capacitor for the purpose. 1pF ought to cover
>> it.
>
>Well, at least you'll have attached *some* value to it.

No. You misunderstand again. The charge (electrical charge geddit?) is
for *you* to put into it. The bill for my wasted time is in the mail.
--

"What is now proved was once only imagin'd." - William Blake, 1793.

1294. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-31 14:48:28 UTC
From: John Woodgate <jmw@jmwa.demon.contraspam.yuk>
Message-ID: <xpoJ8ND8E7CBFwby@jmwa.demon.co.uk>
Source record: 24476
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

I read in sci.electronics.design that Activ8 <reply2group@ndbbm.net>
wrote (in <icb2kderukl5.dlg@news.individual.net>) about 'S - Y Parameter
conversion with Smith Chart', on Sat, 31 Jul 2004:

>2 + j1.5 is not an S-param it's a Y-param

It's just a complex number. How can you tell what sort of parameter it
represents?
--
Regards, John Woodgate, OOO - Own Opinions Only.
The good news is that nothing is compulsory.
The bad news is that everything is prohibited.
http://www.jmwa.demon.co.uk Also see http://www.isce.org.uk

1295. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-31 15:10:58 UTC
From: Activ8 <reply2group@ndbbm.net>
Message-ID: <uo5xsdawvz9f.dlg@news.individual.net>
Source record: 24477
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

On Sat, 31 Jul 2004 15:48:28 +0100, John Woodgate wrote:

> I read in sci.electronics.design that Activ8 <reply2group@ndbbm.net>
> wrote (in <icb2kderukl5.dlg@news.individual.net>) about 'S - Y Parameter
> conversion with Smith Chart', on Sat, 31 Jul 2004:
>
>>2 + j1.5 is not an S-param it's a Y-param
>
> It's just a complex number. How can you tell what sort of parameter it
> represents?

Ok. I can see it's not an s-param and the number were discussing
just happens to be a Z in the text, not a Y.
--
Best Regards,
Mike

1296. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-31 15:30:38 UTC
From: Activ8 <reply2group@ndbbm.net>
Message-ID: <1ooy0jvfs08d0.dlg@news.individual.net>
Source record: 24478
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

On Sat, 31 Jul 2004 15:33:29 +0100, Paul Burridge wrote:

> On Sat, 31 Jul 2004 09:13:05 -0400, Activ8 <reply2group@ndbbm.net>
> wrote:
>
> [yet more unnecessary verbiage snipped]

Ok. from now on I'll just say you're out to lunch without bothering
to point out where or why.
>
> So you could have saved a lot of bandwidth and me a lot of valuable
> time

That's the pot calling the kettle black. Aside from the need for
others to repeatedly spell things out for you, you're also the guy
who braged about the record setting flame war you had with some
dude. I don't suppose yuo consider that a waste of bandwidth. Don't
add hypocrisy to your transgressionsl.

> by just simply stating "no it's not possible to perform a summary
> translation between S and Y parameters by mappings on the Smith Chart"

But for the third time, it is. The eqs are for getting a *numerical*
answer. If you have the chart, you just read the conversion off of
it directly. Start with the example on pg 105.

That's three (or so) times I've told you and yet you can't
understand why people tire of your lack of understanding.

> and we could all have got on with our lives.

Didn't know you had one ;) ... couldn't resist.

> Thanks for unnecessarily
> dragging out the discussion yet adding nothing to it

Ok. You're right. I added nothing. It was all bs. You *can't* do it
on the SC and you *must* use the conversion formulas. Happy now?
Bowick and I are both wrong.

> - oh and the
> gratuitous insults as well, of course.

>>>>Then maybe I should charge you for my input.
>>>
>>> Fine. I'll send you a capacitor for the purpose. 1pF ought to cover
>>> it.

>>
>>Well, at least you'll have attached *some* value to it.
>
> No. You misunderstand again. The charge (electrical charge geddit?)

But you said we can't discuss electronics in this forum.

> is
> for *you* to put into it. The bill for my wasted time is in the mail.

If you want to avoid wasting time, take up wood working.

--
Best Regards,
Mike

1297. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-31 16:45:53 UTC
From: W3JDR <joe@roccis.com>
Message-ID: <51QOc.1570$uk3.905@trndny06>
Source record: 24479
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

I enjoy reading this group, mostly for short sweet questions with short sweet answers. I take the time to sort through all of the questions and all of the responses in a thread because if I can't offer some advice, then maybe I'll learn something. In this case, I feel my time is wasted by both of you because there's nothing I can offer to this purely emotional exchange, and nothing I can learn from what's being offered. I think the majority of the readers probably feel the same.

Can you guys take this to a more private venue please??

Joe
W3JDR

"Activ8" <reply2group@ndbbm.net> wrote in message
news:1ooy0jvfs08d0.dlg@news.individual.net...
> On Sat, 31 Jul 2004 15:33:29 +0100, Paul Burridge wrote:
>
> > On Sat, 31 Jul 2004 09:13:05 -0400, Activ8 <reply2group@ndbbm.net>
> > wrote:
> >
> > [yet more unnecessary verbiage snipped]
>
> Ok. from now on I'll just say you're out to lunch without bothering
> to point out where or why.
> >
> > So you could have saved a lot of bandwidth and me a lot of valuable
> > time
>
> That's the pot calling the kettle black. Aside from the need for
> others to repeatedly spell things out for you, you're also the guy
> who braged about the record setting flame war you had with some
> dude. I don't suppose yuo consider that a waste of bandwidth. Don't
> add hypocrisy to your transgressionsl.
>
> > by just simply stating "no it's not possible to perform a summary
> > translation between S and Y parameters by mappings on the Smith Chart"
>
> But for the third time, it is. The eqs are for getting a *numerical*
> answer. If you have the chart, you just read the conversion off of
> it directly. Start with the example on pg 105.
>
> That's three (or so) times I've told you and yet you can't
> understand why people tire of your lack of understanding.
>

> > and we could all have got on with our lives.
>
> Didn't know you had one ;) ... couldn't resist.
>
> > Thanks for unnecessarily
> > dragging out the discussion yet adding nothing to it
>
> Ok. You're right. I added nothing. It was all bs. You *can't* do it
> on the SC and you *must* use the conversion formulas. Happy now?
> Bowick and I are both wrong.
>
> > - oh and the
> > gratuitous insults as well, of course.
>
> >>>>Then maybe I should charge you for my input.
> >>>
> >>> Fine. I'll send you a capacitor for the purpose. 1pF ought to cover
> >>> it.
> >>
> >>Well, at least you'll have attached *some* value to it.
> >
> > No. You misunderstand again. The charge (electrical charge geddit?)
>
> But you said we can't discuss electronics in this forum.
>
> > is
> > for *you* to put into it. The bill for my wasted time is in the mail.
>
> If you want to avoid wasting time, take up wood working.
>
> --
> Best Regards,
> Mike

1298. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-31 17:07:49 UTC
From: John Woodgate <jmw@jmwa.demon.contraspam.yuk>
Message-ID: <4$+rZkDIH9CBFwbH@jmwa.demon.co.uk>
Source record: 24480
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

I read in sci.electronics.design that Activ8 <reply2group@ndbbm.net>
wrote (in <uo5xsdawvz9f.dlg@news.individual.net>) about 'S - Y Parameter
conversion with Smith Chart', on Sat, 31 Jul 2004:

>I can see it's not an s-param

I was asking HOW you can see that. Do you have selective spectacles,
tuned to s-parameter expressions?
--
Regards, John Woodgate, OOO - Own Opinions Only.
The good news is that nothing is compulsory.
The bad news is that everything is prohibited.
http://www.jmwa.demon.co.uk Also see http://www.isce.org.uk

1299. Bug key damper?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-31 17:22:20 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2n22v2Fs5lbiU1@uni-berlin.de>
Source record: 24481
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

In anticipation of making a bug key up from bits
of brass and old clock springs, what form does the
damper take?

I've never played with nor handled a bug key, and my
question arises from having seen the the vibroplex site.

1300. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-31 17:29:29 UTC
From: Activ8 <reply2group@ndbbm.net>
Message-ID: <1hv1lz9ljgo3f$.dlg@news.individual.net>
Source record: 24482
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

On Sat, 31 Jul 2004 18:07:49 +0100, John Woodgate wrote:

> I read in sci.electronics.design that Activ8 <reply2group@ndbbm.net>
> wrote (in <uo5xsdawvz9f.dlg@news.individual.net>) about 'S - Y Parameter
> conversion with Smith Chart', on Sat, 31 Jul 2004:
>
>>I can see it's not an s-param
>
> I was asking HOW you can see that. Do you have selective spectacles,
> tuned to s-parameter expressions?

Just because s-params are in mag <ang format and not in a + jb . At
least I've never seen tham that way. Furthermore, I know exactly
what PB is referring to, in case you didn't notice the page number
refs.

Yeah. I'm on hold here, so I haven't left yet. Delays.
--
Best Regards,
Mike

1301. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-31 17:42:31 UTC
From: Activ8 <reply2group@ndbbm.net>
Message-ID: <16m2bj4d1it0r$.dlg@news.individual.net>
Source record: 24483
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

On Sat, 31 Jul 2004 16:45:53 GMT, W3JDR wrote:

> I enjoy reading this group, mostly for short sweet questions with short
> sweet answers. I take the time to sort through all of the questions and all
> of the responses in a thread because if I can't offer some advice, then
> maybe I'll learn something. In this case, I feel my time is wasted by both
> of you because there's nothing I can offer to this purely emotional
> exchange, >

Uh. I gave good info and am trying to drill it home. Paul doesn't
like being chided. TFB.

> and nothing I can learn from what's being offered. I think the
> majority of the readers probably feel the same.
>
> Can you guys take this to a more private venue please??
>
> Joe
> W3JDR

Which group? I could take out the x-posts ;) I forgot that and fully
realize that some groups aren't used to this stuff. Maybe I should
go there more often. I've found the amature groups to be quite good,
not that sed is bad. Check it out sometime :)

--
Best Regards,
Mike

1302. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-31 18:08:49 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <n2nng0hvjmgl5ljj1li87onra4sgt0pd97@4ax.com>
Source record: 24484
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

On Sat, 31 Jul 2004 11:30:38 -0400, Activ8 <reply2group@ndbbm.net>
wrote:

>On Sat, 31 Jul 2004 15:33:29 +0100, Paul Burridge wrote:
>
>> On Sat, 31 Jul 2004 09:13:05 -0400, Activ8 <reply2group@ndbbm.net>
>> wrote:
>>
>> [yet more unnecessary verbiage snipped]
>
>Ok. from now on I'll just say you're out to lunch without bothering
>to point out where or why.

Why not go one step further and not bother to say anything at all?

>That's the pot calling the kettle black. Aside from the need for
>others to repeatedly spell things out for you, you're also the guy
>who braged about the record setting flame war you had with some
>dude. I don't suppose yuo consider that a waste of bandwidth. Don't
>add hypocrisy to your transgressionsl.

You know nothing whatsoever of the nature of that thread and my input
to it. On that particular forum, my input was instrumental in
assisting an innocent person to defend his hard-won real-world
reputation against malicious allegations made over the Internet. It
cost the transgressor half a million pounds in damages, thanks in no
small part to my guidance and support in an area of expertise in which
I *do* unquestionably excell. I'm not here to dish out advice, I'm
here to try to learn something about a subject I'm not fully
conversant with.

>> by just simply stating "no it's not possible to perform a summary
>> translation between S and Y parameters by mappings on the Smith Chart"
>
>But for the third time, it is.

For at least the *fourth* time, it isn't!

>The eqs are for getting a *numerical*
>answer. If you have the chart, you just read the conversion off of
>it directly. Start with the example on pg 105.

Nope. The example on p.105 is nothing to do with converting between S
and Y parameters; it simply demonstrates a graphical method for
expressing a normalised load impedance in the form x +/-jy as a
reflection coefficient in terms of a magnitude and angle; that's all.

And as John W said, how do you tell whether the point referred to on the Chart is actually a Y-parameter at all??

>That's three (or so) times I've told you and yet you can't
>understand why people tire of your lack of understanding.

Some people have a gift for expressing themselves lucidly. Roy's single, concise posting was an example of that craft. You have demonstrated nothing of that calibre.

>> and we could all have got on with our lives.
>
>Didn't know you had one ;) ... couldn't resist.

I do, but it's x years minus 1 day thanks to your obfuscation.

>Ok. You're right. I added nothing. It was all bs. You *can't* do it
>on the SC and you *must* use the conversion formulas. Happy now?
>Bowick and I are both wrong.

I didn't say Bowick was wrong. I never said that Bowick stated it was possible to make the conversion solely by means of the graph. You, OTOH, still say that.

--

"What is now proved was once only imagin'd." - William Blake, 1793.

1303. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-31 18:24:52 UTC
From: John Woodgate <jmw@jmwa.demon.contraspam.yuk>
Message-ID: <CtaFdtE0P+CBFws4@jmwa.demon.co.uk>
Source record: 24485
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

I read in sci.electronics.design that Paul Burridge
<pb@notthisbit.osiris1.co.uk> wrote (in <n2nng0hvjmgl5ljj1li87onra4sgt0p
d97@4ax.com>) about 'S - Y Parameter conversion with Smith Chart', on
Sat, 31 Jul 2004:
>And as John W said, how do you tell whether the point referred to on the
>Chart is actually a Y-parameter at all??

No, I didn't say that. Please refrain from citing me in support of your
inanities.
--
Regards, John Woodgate, OOO - Own Opinions Only.
The good news is that nothing is compulsory.
The bad news is that everything is prohibited.
http://www.jmwa.demon.co.uk Also see http://www.isce.org.uk

1304. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-31 18:28:48 UTC
From: John Woodgate <jmw@jmwa.demon.contraspam.yuk>
Message-ID: <btPDN4EgT+CBFwv2@jmwa.demon.co.uk>
Source record: 24486
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

I read in sci.electronics.design that Activ8 <reply2group@ndbbm.net>
wrote (in <1hv1lz9ljgo3f$.dlg@news.individual.net>) about 'S - Y
Parameter conversion with Smith Chart', on Sat, 31 Jul 2004:
>On Sat, 31 Jul 2004 18:07:49 +0100, John Woodgate wrote:
>
>> I read in sci.electronics.design that Activ8 <reply2group@ndbbm.net>
>> wrote (in <uo5xsdawvz9f.dlg@news.individual.net>) about 'S - Y Parameter
>> conversion with Smith Chart', on Sat, 31 Jul 2004:
>>
>>>I can see it's not an s-param
>>
>> I was asking HOW you can see that. Do you have selective spectacles,
>> tuned to s-parameter expressions?
>
>Just because s-params are in mag <ang format and not in a + jb . At
>least I've never seen tham that way.

I asked purely for information. It might have been that there are limits
on the values that the various parameters can take, and that example was
outside the limits for an s-parameter.

>Furthermore, I know exactly what PB
>is referring to, in case you didn't notice the page number refs.

I noticed that, but I, and doubtless many others, don't have the book.
--
Regards, John Woodgate, OOO - Own Opinions Only.
The good news is that nothing is compulsory.
The bad news is that everything is prohibited.
http://www.jmwa.demon.co.uk Also see http://www.isce.org.uk

1305. Re: Bug key damper?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-31 18:50:03 UTC
From: Johnny Melvin <johnny@melvin.com>
Message-ID: <cegphs$1fk$1@news7.svr.pol.co.uk>
Source record: 24487
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

"Airy R. Bean" <me@privacy.net> wrote in message
news:2n22v2Fs5lbiU1@uni-berlin.de...
> In anticipation of making a bug key up from bits
> of brass and old clock springs, what form does the
> damper take?
>
> I've never played with nor handled a bug key, and my
> question arises from having seen the the vibroplex site.
>
Hi,

On this subject of Bug Keys.
I still use a old J36 I purchased in 1957 for 30 bob.
It was made for the US Navy in 1942.
By the Lionel Model Train Company, under license from Vibroplex.
I also have quite a few components from another scrapped J36.
If anyone has parts missing from there old J36 I might be able to
help them out.
But only to genuine homes.

If you intend to make one.
Get a copy of The Story of The Key.
By Louise Ramsey Moreau W3WRE.
It was a Morsum Magnificant Publication.
Its a wonderful history.
And lots of photos to get ideas from.

de Johnny G3LIV.

1306. Re: Bug key damper?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-31 19:03:30 UTC
From: Frank Turner-Smith G3VKI <g3vki@turner-smith.co.uk>
Message-ID: <2n28r5Frv2teU1@uni-berlin.de>
Source record: 24488
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

"Airy R. Bean, Chippenham Breaker" <me@privacy.net> wrote another load of
crap in message news:2n22v2Fs5lbiU1@uni-berlin.de...
> In anticipation of making a bug key up from bits
> of brass and old clock springs, what form does the
> damper take?
>
> I've never played with nor handled a bug key, and my
> question arises from having seen the the vibroplex site.
>
I told you before good buddy, your CB licence does not allow the use of CW.
...(_!_)...

1307. Re: Bug key damper?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-31 19:12:22 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2n29f8Frgp0aU1@uni-berlin.de>
Source record: 24489
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

Is the purpose to damp the oscillator when the operating
lever returns to the central position?

With the brass ring, presumably being loose, it is lifted slightly
by the returning-to-zero oscillator?

"Walt Davidson" <g3nyy@despammed.com> wrote in message
news:3jmng09fe8ja5c3nbtsgnj1l7ies3joqj3@4ax.com...
> On Sat, 31 Jul 2004 18:22:20 +0100, "Airy R. Bean" <me@privacy.net>
> wrote:
> >In anticipation of making a bug key up from bits
> >of brass and old clock springs, what form does the
> >damper take?
> On a Vibroplex bug, the damper is a heavy brass ring (sometimes chrome
> plated), loosely suspended on a bolt.
> You can see pictures of examples here:
> http://www.la.ca.us/frandy/gallery.html
> On an Eddystone bug, it is a small rubber cushion mounted on an
> adjustable bracket fixed to the base-plate.
> http://www.zianet.com/sparks/eddybig2.html

1308. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-31 20:34:48 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cegvp8gpk1@hercules.btinternet.com>
Source record: 24490
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

The Smith Chart has served its purpose.

It was a much-simplified version of earlier, more complicated charts, dating back to the Victorian age used to solve electrical engineering problems involving complex hyperbolic functions.

It applied ONLY to the HF spectrum, serious calculating errors occurr if applied to the LF spectrum and below although few engineers realised this. And still don't.

But it became popular with design engineers immediately following its introduction in the late 1930's when HF broadcasting, TV and Radar, and relatively short, low-loss HF transmission lines became the vogue.

The design and use of HF and VHF lines was much further accelerated during WW2 when all the principal participating nations indulged in vitally-urgent, secret work associated with VHF communications and Radar. The Smith Chart became available just at the right time. It could almost be considered as a war weapon used by all sides.

But it became reduntant just as rapidly on the invention of the scientific pocket calculator. In particular calculators which had hyperbolic functions. The pocket calculator could now, much more easily, with equal facility, undertake transmission line calculations involving the whole of the frequency spectrum from DC upwards.

It is said that, these days, the Smith Chart has eductional value. It allows problems to be visualised. Indeed it does. But there are other just as good educational methods which involve mathematical procedures.

My first association with transmission lines was in 1944/5. I have never used a Smith chart in the whole of my career. Neither have I ever met anyone who has. Perhaps I haven't met many people.

The Smith Chart, as sentimental and as nostalgic as it may be, is redundant.

Reg.

1309. Re: PLEASE READ - Internet site under legal attack by Radioshack corp.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-31 21:13:05 UTC
From: Sarge <sarge43@NOSPAMev1.net>
Message-ID: <10go2r5hf6sgh7d@corp.supernews.com>
Source record: 24491

who the hell ever goes into a radio shack?!

p.s. I hate cross posting.

1310. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-31 21:22:17 UTC
From: John Woodgate <jmw@jmwa.demon.contraspam.yuk>
Message-ID: <tDku22FJ2ADBFwiQ@jmwa.demon.co.uk>
Source record: 24492
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

I read in sci.electronics.design that Reg Edwards
<g4fgq.regp@ZZZbtinternet.com> wrote (in <cegvp8gpk1@hercules.btintern
et.com>) about 'S - Y Parameter conversion with Smith Chart', on Sat, 31
Jul 2004:

>It applied ONLY to the HF spectrum, serious calculating errors occurr if
>applied to the LF spectrum and below although few engineers realised
>this. And still don't.

Could you please explain that a bit more? The chart is a graphical way
of doing mathematics. Where does frequency enter the picture?

If you mean that the characteristic impedances of 'transmission lines'
at low frequencies aren't resistive, I quite agree.
--
Regards, John Woodgate, OOO - Own Opinions Only.
The good news is that nothing is compulsory.
The bad news is that everything is prohibited.
http://www.jmwa.demon.co.uk Also see http://www.isce.org.uk

1311. Re: Bug key damper?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-31 21:35:30 UTC
From: K7MEM <k7mem@myrealbox.com>
Message-ID: <410C10A2.4010202@myrealbox.com>
Source record: 24493
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

Airy R. Bean wrote:
> Is the purpose to damp the oscillator when the operating
> lever returns to the central position?
>
> With the brass ring, presumably being loose, it is lifted slightly
> by the returning-to-zero oscillator?
>
>
> "Walt Davidson" <g3nyy@despammed.com> wrote in message
> news:3jmng09fe8ja5c3nbtsgnj1l7ies3joqj3@4ax.com...
>
>>On Sat, 31 Jul 2004 18:22:20 +0100, "Airy R. Bean" <me@privacy.net>
>>wrote:
>>
>>>In anticipation of making a bug key up from bits
>>>of brass and old clock springs, what form does the
>>>damper take?
>>
>>On a Vibroplex bug, the damper is a heavy brass ring (sometimes chrome
>>plated), loosely suspended on a bolt.
>>You can see pictures of examples here:
>>http://www.la.ca.us/frandy/gallery.html
>>On an Eddystone bug, it is a small rubber cushion mounted on an
>>adjustable bracket fixed to the base-plate.
>>http://www.zianet.com/sparks/eddybig2.html

I have a copy of a article originally published by Brian Murphy,
VE2AGO in QST Magazine (date unknown). It is an article on how
to properly adjust a semi-automatic key, or bug. It gives you a
lot of insight into what all the adjustments are for and and
nice overhead drawing of an automatic key.

If you do make one you are going to have to adjust it anyway.
If you like, I can send you the files via email. There is only two
files, one html and one gif. Or, I can probably post it somewhere on
the net. Let me know. The email in the sig works.

--
Martin E. Meserve
k7mem@myrealbox.com
http://www.k7mem.150m.com

1312. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-31 21:45:49 UTC
From: John Larkin <jjlarkin@highlandSNIPtechTHISnologyPLEASE.com>
Message-ID: <oh4og0d6dh8lj6rqgbks5k44gonil7dk64@4ax.com>
Source record: 24494
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

On Sat, 31 Jul 2004 20:34:48 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>The Smith Chart has served its purpose.
>
>It was a much-simplified version of earlier, more complicated charts, dating
>back to the Victorian age used to solve electrical engineering problems
>involving complex hyperbolic functions.
>
>It applied ONLY to the HF spectrum, serious calculating errors occurr if
>applied to the LF spectrum and below although few engineers realised this.

What's the cutoff frequency below which a Smith Chart won't work?

John

1313. Re: PLEASE READ - Internet site under legal attack by Radioshack corp.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-31 22:15:09 UTC
From: "Gary S." <Idontwantspam@net>
Message-ID: <r96og093f9p0c1696ssveu5o851bnp2iek@4ax.com>
Source record: 24495

On Sat, 31 Jul 2004 16:13:05 -0500, "Sarge" <sarge43@NOSPAMev1.net>
wrote:

>who the hell ever goes into a radio shack?!
>
There is a good electronics shop in my town, so I have no need to
visit RS.

My running joke has been that if I am bored, I can go into RS and ask
technical questions.

The current economic downturn has meant that a lot of high-tech
professionals have ended up working at a RS until the economy
recovers, so the joke is less true currently.

Happy trails,
Gary (net.yogi.bear)
---
at the 51st percentile of ursine intelligence

Gary D. Schwartz, Needham, MA, USA
Please reply to: garyDOTschwartzATpoboxDOTcom

1314. Re: Bug key damper?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-31 22:29:34 UTC
From: Road_Hog <NoSpam@NoSpam.com>
Message-ID: <2n2kqhFsa4emU1@uni-berlin.de>
Source record: 24496
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

"Airy R. Bean" <me@privacy.net> Top Posted in message
news:2n29f8Frgp0aU1@uni-berlin.de...
> Is the purpose to damp the oscillator when the operating
> lever returns to the central position?
>
> With the brass ring, presumably being loose, it is lifted slightly
> by the returning-to-zero oscillator?
>
>
> "Walt Davidson" <g3nyy@despammed.com> wrote in message
> news:3jmng09fe8ja5c3nbtsgnj1l7ies3joqj3@4ax.com...
> > On Sat, 31 Jul 2004 18:22:20 +0100, "Airy R. Bean" <me@privacy.net>
> > wrote:
> > >In anticipation of making a bug key up from bits
> > >of brass and old clock springs, what form does the
> > >damper take?
> > On a Vibroplex bug, the damper is a heavy brass ring (sometimes chrome
> > plated), loosely suspended on a bolt.
> > You can see pictures of examples here:
> > http://www.la.ca.us/frandy/gallery.html
> > On an Eddystone bug, it is a small rubber cushion mounted on an
> > adjustable bracket fixed to the base-plate.
> > http://www.zianet.com/sparks/eddybig2.html

Stop top posting, you Chippenham Breaker.

1315. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-31 22:39:39 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <MPG.1b75bf6eceae34779896f0@news-central.giganews.com>
Source record: 24347
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

In article <cegvp8gpk1@hercules.btinternet.com>,
g4fgq.regp@ZZZbtinternet.com says...

> It applied ONLY to the HF spectrum, serious calculating errors occurr if
> applied to the LF spectrum and below although few engineers realised this.
> And still don't.

Major employers, especially those with government contracts, require
pre-employment drug testing these days. Maybe that's why few engineers
think Smith charts somehow become invalid below a certain frequency.
Your mileage, obviously, has varied. :-P

> My first association with transmission lines was in 1944/5. I have never
> used a Smith chart in the whole of my career. Neither have I ever met anyone
> who has. Perhaps I haven't met many people.

Or used a VNA?

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

1316. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-31 22:43:00 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <lu7og0pa1m3of9cr4h1u58ict3g5rm3fub@4ax.com>
Source record: 24348
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

On Sat, 31 Jul 2004 22:22:17 +0100, John Woodgate
<jmw@jmwa.demon.contraspam.yuk> wrote:

>I read in sci.electronics.design that Reg Edwards
><g4fgq.regp@ZZZbtinternet.com> wrote (in <cegvp8gpk1@hercules.btintern
>et.com>) about 'S - Y Parameter conversion with Smith Chart', on Sat, 31
>Jul 2004:
>
>>It applied ONLY to the HF spectrum, serious calculating errors occurr if
>>applied to the LF spectrum and below although few engineers realised
>>this. And still don't.
>
>Could you please explain that a bit more? The chart is a graphical way
>of doing mathematics. Where does frequency enter the picture?

Perhaps Reg can also tell us in which year since the Chart's inception
the mathematical relationship between a graphical solution to a
computation and a numerical one broke down?
--

"What is now proved was once only imagin'd." - William Blake, 1793.

1317. Re: Aluminium Foil as basis of tuning capacitors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-31 22:43:18 UTC
From: Mike Coslo <mcoslo@adelphia.net>
Message-ID: <UYudnQvOiM4avZHcRVn-rg@adelphia.com>
Source record: 24349

Airy R. Bean wrote:

> "Airy R. Bean" <me@privacy.net> wrote in message
> news:2n1jasFrj8upU1@uni-berlin.de...
>
>>Has anyone experimented with making up large air-spaced
>>capacitors for ATU use out of Aluminium Foil?
>>
>>Obviously some stiffening frame would be needed for each piece of
>>foil, and that frame could then serve to enforce separation
>>between plates.
>>
>>Also, anyone played around with variable capacitors when the
>>meshing mechanism is linear rather than rotary? I envisage a
>>fine feed using, say, 0BA threaded studding.
>>
>>What I have in mind is an L-Match underneath the proposed
>>20m Vertical Antenna (q.v.), remote controlled from the shack by
>>20-foot long Nylon rods, with the turns-counters actually being in the
>>shack.

I've never experimented myself, but have seen varicaps made of aluminum foil and glass, where the adjustment was made by sliding the foil/glass leaves back and forth. Looked like it would work very well.

- Mike KB3EIA -

1318. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-31 22:48:04 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <h88og09ghr7akdunlmrbmje43n7j1u35li@4ax.com>
Source record: 24350
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

On Sat, 31 Jul 2004 19:24:52 +0100, John Woodgate
<jmw@jmwa.demon.contraspam.yuk> wrote:

>I read in sci.electronics.design that Paul Burridge
><pb@notthisbit.osiris1.co.uk> wrote (in <n2nng0hvjmgl5ljj1li87onra4sgt0p
>d97@4ax.com>) about 'S - Y Parameter conversion with Smith Chart', on
>Sat, 31 Jul 2004:
>>And as John W said, how do you tell whether the point referred to on the
>>Chart is actually a Y-parameter at all??
>
>No, I didn't say that. Please refrain from citing me in support of your
>inanities.

Sorry John. I didn't mean to imply I was investing any faith in your
all-too-frequently incorrect assertions.
HTH.

--

"What is now proved was once only imagin'd." - William Blake, 1793.

1319. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-31 22:49:27 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <2b8og0hsc4o51qmklqb5pr141pf64tce4a@4ax.com>
Source record: 24351
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

On Sat, 31 Jul 2004 13:42:31 -0400, Activ8 <reply2group@ndbbm.net>
wrote:

>On Sat, 31 Jul 2004 16:45:53 GMT, W3JDR wrote:
>
>> I enjoy reading this group, mostly for short sweet questions with short
>> sweet answers. I take the time to sort through all of the questions and all
>> of the responses in a thread because if I can't offer some advice, then
>> maybe I'll learn something. In this case, I feel my time is wasted by both
>> of you because there's nothing I can offer to this purely emotional
>> exchange, >
>
>Uh. I gave good info and am trying to drill it home. Paul doesn't
>like being chided. TFB.

TFB?? That's what you'd like to think, pal. One insult too many. I
don't have to put up with any more of your abuse and I won't.
Bye, Mike. It's getting *very* boring.

<plonk!>
--

"What is now proved was once only imagin'd." - William Blake, 1793.

1320. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-31 23:05:50 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <t49og052k5mmpbq5b1ov14ct1tcse8rrga@4ax.com>
Source record: 24352
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

On Sat, 31 Jul 2004 20:34:48 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>The Smith Chart has served its purpose.
[...]
>My first association with transmission lines was in 1944/5. I have never
>used a Smith chart in the whole of my career.

How did you perform the gut-wrenchingly long-winded calculations in
those glorious days, Reg? Did you get an hour's free use each day of
Colossus? ;-)
--

"What is now proved was once only imagin'd." - William Blake, 1793.

1321. Re: Bug key damper?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-07-31 23:59:21 UTC
From: crabtreejr@aol.com
Message-ID: <20040731195921.04194.00002246@mb-m15.aol.com>
Source record: 24353

>From: K7MEM k7mem@myrealbox.com
>Date: 7/31/04 4:35 PM Central Daylight Time
>Message-id: <410C10A2.4010202@myrealbox.com>
>
>Airy R. Bean wrote:
>> Is the purpose to damp the oscillator when the operating
>> lever returns to the central position?
>>
>> With the brass ring, presumably being loose, it is lifted slightly
>> by the returning-to-zero oscillator?
>>
>>
>> "Walt Davidson" <g3nyy@despammed.com> wrote in message
>> news:3jmng09fe8ja5c3nbtsgnj1l7ies3joqj3@4ax.com...
>>
>>>On Sat, 31 Jul 2004 18:22:20 +0100, "Airy R. Bean" <me@privacy.net>
>>>wrote:
>>>
>>>>In anticipation of making a bug key up from bits
>>>>of brass and old clock springs, what form does the
>>>>damper take?
>>>
>>>On a Vibroplex bug, the damper is a heavy brass ring (sometimes chrome
>>>plated), loosely suspended on a bolt.
>>>You can see pictures of examples here:
>>>http://www.la.ca.us/frandy/gallery.html
>>>On an Eddystone bug, it is a small rubber cushion mounted on an
>>>adjustable bracket fixed to the base-plate.
>>>http://www.zianet.com/sparks/eddybig2.html
>
>I have a copy of a article originally published by Brian Murphy,
>VE2AGO in QST Magazine (date unknown). It is an article on how
>to properly adjust a semi-automatic key, or bug. It gives you a
>lot of insight into what all the adjustments are for and and
>nice overhead drawing of an automatic key.
>
>If you do make one you are going to have to adjust it anyway.
>If you like, I can send you the files via email. There is only two
>files, one html and one gif. Or, I can probably post it somewhere on
>the net. Let me know. The email in the sig works.
>
>--
>Martin E. Meserve
>k7mem@myrealbox.com

>http://www.k7mem.150m.com

The article was in QST, Feb 1968, pp60-61. The author's call was VE2AGQ (q not o).

73 John KC0GGH

1322. Part 15 info need for broadcasting

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-01 00:57:13 UTC
From: DJboutit <Recordking@Hotmail.com>
Message-ID: <JdXOc.500$Zm6.333@newssvr22.news.prodigy.com>
Source record: 24354

am looking for a good part 15 to broadcast music which one would you guys suggest. I am looking for decent sound and good range from a part 15 setup. I also need info on the transmitter and the antenna I be willing to build some stuff but buying the stuff would be better.

1323. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-01 01:32:34 UTC
From: Jim Thompson <thegreatone@example.com>
Message-ID: <4phog0pa9c9nbtpeni1q2kv42pr50blb1r@4ax.com>
Source record: 24355
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

On Sat, 31 Jul 2004 23:48:04 +0100, Paul Burridge
<pb@notthisbit.osiris1.co.uk> wrote:

>On Sat, 31 Jul 2004 19:24:52 +0100, John Woodgate
><jmw@jmwa.demon.contraspam.yuk> wrote:
>
>>I read in sci.electronics.design that Paul Burridge
>><pb@notthisbit.osiris1.co.uk> wrote (in <n2nng0hvjmgl5ljj1li87onra4sgt0p
>>d97@4ax.com>) about 'S - Y Parameter conversion with Smith Chart', on
>>Sat, 31 Jul 2004:
>>>And as John W said, how do you tell whether the point referred to on the
>>>Chart is actually a Y-parameter at all??
>>
>>No, I didn't say that. Please refrain from citing me in support of your
>>inanities.
>
>Sorry John. I didn't mean to imply I was investing any faith in your
>all-too-frequently incorrect assertions.
>HTH.

*** PLEASE NOTE ***

I am seeing Burridge's crap today only because I'm using my laptop for
news reading, with no plonk filters, since my main "communications"
machine took a dipsy-doodle and I have it lashed up in backup mode
right now.

Without a doubt Burridge is so obscene as to rank him right up there
with the infamous Robert... except that Robert knew his technology.

Poor Burridge never will.

1324. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-01 01:43:21 UTC
From: John Larkin <jjlarkin@highlandSNIPtechTHISnologyPLEASE.com>
Message-ID: <3giog097k35lt81sqvda45el0n1lgkpp3q@4ax.com>
Source record: 24356
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

On Sat, 31 Jul 2004 18:32:34 -0700, Jim Thompson
<thegreatone@example.com> wrote:

Hey Jim, as long as we're OT, try to find some

Francis Coppola (the Godfather guy)
Diamond Series
Gold Label
Chardonnay
2002

It's from Monterey, really butterey, a little spicy, 13.5% but it
doesn't taste hot.

Give it a shot if you can find it. It's at Safeway here.

John

1325. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-01 01:57:42 UTC
From: Jim Thompson <thegreatone@example.com>
Message-ID: <lejog01q7iibp2sennqiivdrkahs12mar0@4ax.com>
Source record: 24357
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

On Sat, 31 Jul 2004 18:43:21 -0700, John Larkin
<jjlarkin@highlandSNIPtechTHISnologyPLEASE.com> wrote:

>On Sat, 31 Jul 2004 18:32:34 -0700, Jim Thompson
><thegreatone@example.com> wrote:
>
>
>
>Hey Jim, as long as we're OT, try to find some
>
>Francis Coppola (the Godfather guy)
>Diamond Series
>Gold Label
>Chardonnay
>2002
>
>
>It's from Monterey, really butterey, a little spicy, 13.5% but it
>doesn't taste hot.
>
>Give it a shot if you can find it. It's at Safeway here.
>
>
>John
>

Already tried it... pretty good, though perhaps, as you say, "a little
spicy".

1326. Handy coax loss calculator

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-01 02:04:33 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <MPG.1b75ef8c5a2808069896f1@news-central.giganews.com>
Source record: 24358

Maybe I'm the last one to run across this, but...

http://www.timesmicrowave.com/cgi-bin/calculate.pl

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

1327. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-01 02:12:43 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cehjir$n28$1@titan.btinternet.com>
Source record: 24359
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

```
>
> Or used a VNA?
>
==============================

Wot's a VNA ?

I have to agree there are certain aspects, a few octaves of my education,
which have been neglected. The time factor has intervened. But we should
leave personalities out of it.
----
Reg.
```

1328. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-01 02:19:02 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cehjumnbn1@titan.btinternet.com>
Source record: 24360
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

```
> Could you please explain that a bit more? The chart is a graphical way
> of doing mathematics. Where does frequency enter the picture?
>
> If you mean that the characteristic impedances of 'transmission lines'
> at low frequencies aren't resistive, I quite agree.
> --
================================

The characteristic impedances of ALL practical lines aren't resistive. But
your statement just about sums up the situation.
----
Reg.
```

1329. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-01 02:42:39 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <410c59ce_1@corp.newsgroups.com>
Source record: 24361
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

Reg Edwards wrote:
> The Smith Chart, as sentimental and as nostalgic as it may be, is redundant.

All graphs are redundant and can be replaced by equations or tables.
However, a picture (graph) is still worth a thousand words (or numbers).
A glance at a graph tells me more than an hour of studying endless rows
and columns of numbers.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

1330. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-01 02:50:34 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cehlpq$gl9$1@hercules.btinternet.com>
Source record: 24362
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

> >>It applied ONLY to the HF spectrum, serious calculating errors occurr if
> >>applied to the LF spectrum and below although few engineers realised
> >>this. And still don't.
> >
> >Could you please explain that a bit more? The chart is a graphical way
> >of doing mathematics. Where does frequency enter the picture?
>
> Perhaps Reg can also tell us in which year since the Chart's inception
> the mathematical relationship between a graphical solution to a
> computation and a numerical one broke down?
> --
==========

It has never broken down. It's the engineers' educational system which has broken down. Mathematics gradually became a neglected subject. And that began around 1945. Students and professors were war casualties. Present products of the system are mentally handicapped. They are reduced to using look-up tables and manufacturers' digital-chip catalogues with little understanding of what's really going on in the world.

It suffices after a fashion but is very poor engineering economics and a squandering of the Earth's limited resources.

Which is a long way from S-Parameters.

Reg.

1331. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-01 03:07:57 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cehmqdhfk1@hercules.btinternet.com>
Source record: 24363
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

> What's the cutoff frequency below which a Smith Chart won't work?
>
> John
>
==========

This question shows a limited understanding of the LF, and below, frequency spectrum. There are an infinite number of octaves.

What is the cut-off frequency of a simple R+C high-pass filter?

It is first necessary to specify how many decibels the response must have fallen.

Reg.

1332. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-01 03:18:09 UTC
From: John Larkin <jjlarkin@highlandSNIPtechTHISnologyPLEASE.com>
Message-ID: <75oog05ek82akc16tj1cgge3nj04e7sggs@4ax.com>
Source record: 24364
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

On Sun, 1 Aug 2004 03:07:57 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>> What's the cutoff frequency below which a Smith Chart won't work?
>>
>> John
>>
>==============================
>
>This question shows a limited understanding of the LF, and below, frequency
>spectrum. There are an infinite number of octaves.
>
>What is the cut-off frequency of a simple R+C high-pass filter?
>
>It is first necessary to specify how many decibels the response must have
>fallen.
>----
>Reg.
>

C'mon Reg, answer the question. What is there about a Smith chart that
makes it incorrect at low frequencies?

John

1333. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-01 03:36:33 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <5zZOc.2925$QA5.1685@nwrddc01.gnilink.net>
Source record: 24365
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

Reg

I think you are wrong about Smith Charts being limited to use at low
frequencies. Maybe you can take time to tell me where my thinking has gone
wrong. I'm not really a good engineer. I avoided the mathematical aspects
of design whenever possible.
I considered the Smith Chart a plot of *all* impedances with + R values.
That means that there is a point on the Chart that represents every
impedance independent of the frequency associated with that impedance
determination.

I have maybe been in error when I state that I can look at an impedance
plotted on the Smith Chart and identify which combination of the minimum
number of reactors will be best for matching that impedance to the
impedance of your choice, at any frequency. I realize that there are
conditions where my method gets difficult, but, I contend that a Smith Chart
is a nifty tool for those of us who arent smart enough to do the math.

Jerry

.

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:cegvp8gpk1@hercules.btinternet.com...
> The Smith Chart has served its purpose.
>
> It was a much-simplified version of earlier, more complicated charts,
dating
> back to the Victorian age used to solve electrical engineering problems
> involving complex hyperbolic functions.
>
> It applied ONLY to the HF spectrum, serious calculating errors occurr if
> applied to the LF spectrum and below although few engineers realised this.
> And still don't.
>
> But it became popular with design engineers immediately following its
> introduction in the late 1930's when HF broadcasting, TV and Radar, and
> relatively short, low-loss HF transmission lines became the vogue.
>
> The design and use of HF and VHF lines was much further accelerated during
> WW2 when all the principal participating nations indulged in
vitally-urgent,
> secret work associated with VHF communications and Radar. The Smith Chart
> became available just at the right time. It could almost be considered as
a

> war weapon used by all sides.
>
> But it became reduntant just as rapidly on the invention of the scientific
> pocket calculator. In particular calculators which had hyperbolic
functions.
> The pocket calculator could now, much more easily, with equal facility,
> undertake transmission line calculations involving the whole of the
> frequency spectrum from DC upwards.
>
> It is said that, these days, the Smith Chart has eductional value. It
allows
> problems to be visualised. Indeed it does. But there are other just as
good
> educational methods which involve mathematical procedures.
>
> My first association with transmission lines was in 1944/5. I have never
> used a Smith chart in the whole of my career. Neither have I ever met
anyone
> who has. Perhaps I haven't met many people.
>
> The Smith Chart, as sentimental and as nostalgic as it may be, is
redundant.
> ----
> Reg.
>
>

1334. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-01 04:18:00 UTC
From: Activ8 <reply2group@ndbbm.net>
Message-ID: <zw9jta7oadui.dlg@news.individual.net>
Source record: 24367
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

On Sun, 1 Aug 2004 02:50:34 +0000 (UTC), Reg Edwards wrote:

>>>>It applied ONLY to the HF spectrum, serious calculating errors occurr if
>>>>applied to the LF spectrum and below although few engineers realised
>>>>this. And still don't.
>>>
>>>Could you please explain that a bit more? The chart is a graphical way
>>>of doing mathematics. Where does frequency enter the picture?
>>
>> Perhaps Reg can also tell us in which year since the Chart's inception
>> the mathematical relationship between a graphical solution to a
>> computation and a numerical one broke down?
>> --
> ==
>
> It has never broken down. It's the engineers' educational system which has
> broken down. Mathematics gradually became a neglected subject. And that
> began around 1945. Students and professors were war casualties. Present
> products of the system are mentally handicapped. They are reduced to using
> look-up tables and manufacturers' digital-chip catalogues with little
> understanding of what's really going on in the world.
>
> It suffices after a fashion but is very poor engineering economics and a
> squandering of the Earth's limited resources.
>
> Which is a long way from S-Parameters.
> ----
> Reg.

Damn Reg. So far, I'm really liking what you're writing, history
included. As much as I like shortcuts, they never satisfy my desire
to truly understand an engineering concept which can only be related
(IME and to my satisfaction, etc) via mathematical analysis. If you
tell me that a range of resistor values will light up an LED
supplied with a certain range of voltage, I'm not going to sleep
easily until I know why. Yeah, there are some neat analogies, but
that doesn't yield an ohmic value. Math will.

That's why I'm ranting. Running to Wendy's might be a quick fix, but
it isn't my way and neither is randomly shoving values into Spice as
great of a tool as it is. It's just a tool and it's no better than
the operator.

I should stop now because PB already told me to keep my views to myself if they don't answer the question. I should be plonked post haste.

--
Best Regards,
Mike

1335. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-01 04:19:12 UTC
From: Activ8 <reply2group@ndbbm.net>
Message-ID: <1kpirajws18ml$.dlg@news.individual.net>
Source record: 24366
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

On Sun, 1 Aug 2004 02:19:02 +0000 (UTC), Reg Edwards wrote:

>> Could you please explain that a bit more? The chart is a graphical way
>> of doing mathematics. Where does frequency enter the picture?

Reaactance depends on it. I must not understand your question.
>>
>> If you mean that the characteristic impedances of 'transmission lines'
>> at low frequencies aren't resistive, I quite agree.
>> --
> ================================
>
> The characteristic impedances of ALL practical lines aren't resistive. But
> your statement just about sums up the situation.
> ----
> Reg.

--
Best Regards,
Mike

1336. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-01 04:39:06 UTC
From: Activ8 <reply2group@ndbbm.net>
Message-ID: <109ww9af898hb.dlg@news.individual.net>
Source record: 24368
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

On Sun, 01 Aug 2004 03:36:33 GMT, Jerry Martes wrote:

> Reg
>
> I think you are wrong about Smith Charts being limited to use at low
> frequencies. Maybe you can take time to tell me where my thinking has gone
> wrong. I'm not really a good engineer. I avoided the mathematical aspects
> of design whenever possible.
> I considered the Smith Chart a plot of *all* impedances with + R values.
> That means that there is a point on the Chart that represents every
> impedance independent of the frequency associated with that impedance
> determination.
>
> I have maybe been in error when I state that I can look at an impedance
> plotted on the Smith Chart and identify which combination of the minimum
> number of reactors will be best for matching that impedance to the
> impedance of your choice, at any frequency. I realize that there are
> conditions where my method gets difficult, but, I contend that a Smith Chart
> is a nifty tool for those of us who arent smart enough to do the math.
>
> Jerry
>

There are other considerations in detemining how to arrange the matching net. Once you have the topology, the chart is pretty convenient, IMO. And it doesn't save you from any *complicated* math. Obviously, going from j5 to j0 is simple arithemtic - you need -j5 reactance or suseptance depending on whether your selected topology calls for a series or shunt.

The nice thing IMO is that you can keep track of each step on a graph of the transformation and not have to look at a blur of calculations.

IMO, it avoids no arithmetic at all. You still have to add and subtract. And with or without it, you have to convert the reactances to puFFs and Henries for that freq.

--
Best Regards,
Mike

1337. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-01 04:47:09 UTC
From: Activ8 <reply2group@ndbbm.net>
Message-ID: <zj3tr18z1hz6$.dlg@news.individual.net>
Source record: 24369
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

On Sat, 31 Jul 2004 18:32:34 -0700, Jim Thompson wrote:

> On Sat, 31 Jul 2004 23:48:04 +0100, Paul Burridge
> <pb@notthisbit.osiris1.co.uk> wrote:
>
>>On Sat, 31 Jul 2004 19:24:52 +0100, John Woodgate
>><jmw@jmwa.demon.contraspam.yuk> wrote:
>>
>>>I read in sci.electronics.design that Paul Burridge
>>><pb@notthisbit.osiris1.co.uk> wrote (in <n2nng0hvjmgl5ljj1li87onra4sgt0p
>>>d97@4ax.com>) about 'S - Y Parameter conversion with Smith Chart', on
>>>Sat, 31 Jul 2004:
>>>>And as John W said, how do you tell whether the point referred to on the
>>>>Chart is actually a Y-parameter at all??
>>>
>>>No, I didn't say that. Please refrain from citing me in support of your
>>>inanities.
>>
>>Sorry John. I didn't mean to imply I was investing any faith in your
>>all-too-frequently incorrect assertions.
>>HTH.
>
> *** PLEASE NOTE ***
>
> I am seeing Burridge's crap today only because I'm using my laptop for
> news reading, with no plonk filters, since my main "communications"
> machine took a dipsy-doodle and I have it lashed up in backup mode
> right now.
>
> Without a doubt Burridge is so obscene as to rank him right up there
> with the infamous Robert... except that Robert knew his technology.
>
> Poor Burridge never will.

Do you have any idea how happy I am now that he plonked me :)^21
blackjack! It tells me that I made an honest effort to push him in
the right direction and had no more success than those before me. I
know *one* horse that will doe of thirst. Or is he an ass?
--
Best Regards,
Mike

1338. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-01 05:16:34 UTC
From: Alfred Lorona <w6wqc@dslextreme.com>
Message-ID: <2n3cmaFrl6dlU1@uni-berlin.de>
Source record: 24371

If all you're interested in is the straighforward conversion from S to Y and Y to S, you might have a look at the free download program 'Vierpol' from RFglobalnet. Google should find the URL of the download site.

73, AL

1339. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-01 05:16:58 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <e1%Oc.3027$QA5.125@nwrddc01.gnilink.net>
Source record: 24370
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

ike

I have convinced myself that the Smith Chart alows it to be determned if
it is preferable to add series (+ or - X), or Shunt (+ or - X) depending
where the complex Z plots on the Chart.
I really admire the guys who can match impedances with math only. I just
dont have good study habits, so I'm not smart.

"Activ8" <reply2group@ndbbm.net> wrote in message
news:109ww9af898hb.dlg@news.individual.net...
> On Sun, 01 Aug 2004 03:36:33 GMT, Jerry Martes wrote:
>
> > Reg
> >
> > I think you are wrong about Smith Charts being limited to use at low
> > frequencies. Maybe you can take time to tell me where my thinking has
gone
> > wrong. I'm not really a good engineer. I avoided the mathematical
aspects
> > of design whenever possible.
> > I considered the Smith Chart a plot of *all* impedances with + R
values.
> > That means that there is a point on the Chart that represents every
> > impedance independent of the frequency associated with that impedance
> > determination.
> >
> > I have maybe been in error when I state that I can look at an
impedance
> > plotted on the Smith Chart and identify which combination of the minimum
> > number of reactors will be best for matching that impedance to the
> > impedance of your choice, at any frequency. I realize that there are
> > conditions where my method gets difficult, but, I contend that a Smith
Chart
> > is a nifty tool for those of us who arent smart enough to do the math.
> >
> > Jerry
> >
> There are other considerations in detemining how to arrange the
> matching net. Once you have the topology, the chart is pretty
> convenient, IMO. And it doesn't save you from any *complicated*
> math. Obviously, going from j5 to j0 is simple arithemtic - you need
> -j5 reactance or suseptance depending on whether your selected
> topology calls for a series or shunt.
>

> The nice thing IMO is that you can keep track of each step on a
> graph of the transformation and not have to look at a blur of
> calculations.
>
> IMO, it avoids no arithmetic at all. You still have to add and
> subtract. And with or without it, you have to convert the reactances
> to puFFs and Henries for that freq.
>
> --
> Best Regards,
> Mike

M ike

I have convinced myself that the Smith Chart alows it to be determned if it is preferable to add series (+ or - X), or Shunt (+ or - X) depending where the complex Z plots on the Chart.
I really admire the guys who can match impedances with math only. I just dont have good study habits, so I'm not smart.

Jerry

1340. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-01 05:19:53 UTC
From: Activ8 <reply2group@ndbbm.net>
Message-ID: <ug5hnbb6nt08$.dlg@news.individual.net>
Source record: 24372
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

On Sat, 31 Jul 2004 19:28:48 +0100, John Woodgate wrote:

> I read in sci.electronics.design that Activ8 <reply2group@ndbbm.net>
> wrote (in <1hv1lz9ljgo3f$.dlg@news.individual.net>) about 'S - Y
> Parameter conversion with Smith Chart', on Sat, 31 Jul 2004:
>>On Sat, 31 Jul 2004 18:07:49 +0100, John Woodgate wrote:
>>
>>> I read in sci.electronics.design that Activ8 <reply2group@ndbbm.net>
>>> wrote (in <uo5xsdawvz9f.dlg@news.individual.net>) about 'S - Y Parameter
>>> conversion with Smith Chart', on Sat, 31 Jul 2004:
>>>
>>>>I can see it's not an s-param
>>>
>>> I was asking HOW you can see that. Do you have selective spectacles,
>>> tuned to s-parameter expressions?
>>
>>Just because s-params are in mag <ang format and not in a + jb . At
>>least I've never seen tham that way.
>
> I asked purely for information. It might have been that there are limits
> on the values that the various parameters can take, and that example was
> outside the limits for an s-parameter.
>
>>Furthermore, I know exactly what PB
>>is referring to, in case you didn't notice the page number refs.
>
> I noticed that, but I, and doubtless many others, don't have the book.

Ok. I think I understand your confusion, now, and I hope I didn't
call it a Y param (part of the OP subject) and just said it's not an
s-param, which as I said, isn't expressed as a complex number, IME.

The example is given as a load of Z = 100 + j75 which normalized to
50 Ohms is 2 + j1.5 and as I've tirelessly tried to drive home can
clearly be read off the chart as 0.54 <29.7 deg

Due to the geometry of the SC, a normal polar/rect (v.v.) conversion
doesn't work and as I mentioned earlier, those conversion formulas
look very much like something that came from the circle equation. If
you have a conversion chart handy, look at the (1-y), (1+y) factors
and consider the fact that the origin is at 1,1. It's obvious to me
that the formulas were derived analytically from

(x-h)^2 + (y-k)^2 = r^2

with h, k = (1,1), i.e., the center of the s-param circle is at the intersection of the unit R and X circles.

Interesting that the +/- signs in the conversion are kin to the hyperbola (no?), which IIRC Reg mentioned (xmission line eqs), but I'll wager it all came from the SC's circular geometry, mainly because I coded an SC chart and went as far as calculating the intersection points where the arc change line width and eventually terminate like a real printed SC, not the typical CAD couple of lines that go to oo . You could say that I have deep carnal knowledge of the chart's construction. My app displays the Z, Y, S params of the cursor position in the status bar and damned if I remember whether I naively (or brainfartedly) used polar/rect conversions for that.

--
Best Regards,
Mike

1341. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-01 05:24:29 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <MPG.1b761e651f37ba4f9896f2@news-central.giganews.com>
Source record: 24373
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

In article <cehjir$n28$1@titan.btinternet.com>,
g4fgq.regp@ZZZbtinternet.com says...
> >
> > Or used a VNA?
> >
> ==========
>
> Wot's a VNA ?

Vector network analyzer. Since the mid-1970s, maybe earlier, they've
been able to generate both scalar and polar plots of S-parameters
directly. Very handy for antenna work, if you don't mind dragging 75
pounds of gear around! I just wrote some code to grab Smith-chart plots
off a friend's Advantest R3762AH, and I'm going through some real
hardware envy right now.

> I have to agree there are certain aspects, a few octaves of my education,
> which have been neglected. The time factor has intervened. But we should
> leave personalities out of it.

True; this thread has been generating more heat than light since it
began. I've stayed out of it since I'm not a certified guru at this
stuff. I don't want to post any incorrect or incomplete information
that will further confuse our esteemed interlocutor. It'd probably be a
good idea for all others who aren't fully up to date on the principles
to do the same. :)

Conversely, I've already hit 'print' twice on J. Woodgate's posts to
keep them around for posterity....

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

1342. Re: Receive NDB beacons ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-01 05:27:14 UTC
From: Solomon Fernblatt <spamfree@myhome>
Message-ID: <UrqdnYPmCq-C4pHcRVn-jQ@giganews.com>
Source record: 24374
Cross-posted to: alt.radio.scanner,rec.radio.amateur.homebrew,rec.radio.scanner,sci.electronics.design

Tam/WB2TT wrote:

> "Mike Andrews" <mikea@mikea.ath.cx> wrote in message
> news:ce3vm5$5lv$4@puck.litech.org...
>
>>In <8t2dnX2xb6Nb9pjcRVn-vw@comcast.com> (rec.radio.amateur.homebrew),
>
> Tam/WB2TT wrote:
>
>>>Are they still using the NDB stations? seems kind of redundant with VOR,
>>>that has been around for 50 years or so.
>>>Tam
>>
>>You bet. OUN is about half a mile from me, on 260 KHz, and very
>>resistant to solar flares and the like.
>>
>>--
>>Mike Andrews
>>mikea@mikea.ath.cx
>>Tired old sysadmin
>
>
> I took a listen on the Icom 756. Heard about 4 NDBs very weak, and a bunch
> of stations that sounded like RTTY.
>
> Tam

The LF data signals are DGPS (Differential GPS) signals. Google dgps,
lots of civil engineering/survey folks use it. In conjuction with a
regular gps receiver it makes for incredibly accurate measurements.

Tom NU4G

1343. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-01 05:38:31 UTC
From: John Woodgate <jmw@jmwa.demon.contraspam.yuk>
Message-ID: <GqT0MfAXHIDBFwEq@jmwa.demon.co.uk>
Source record: 24377
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

I read in sci.electronics.design that Activ8 <reply2group@ndbbm.net>
wrote (in <1kpirajws18ml$.dlg@news.individual.net>) about 'S - Y
Parameter conversion with Smith Chart', on Sun, 1 Aug 2004:
>On Sun, 1 Aug 2004 02:19:02 +0000 (UTC), Reg Edwards wrote:
>
>>> Could you please explain that a bit more? The chart is a graphical way
>>> of doing mathematics. Where does frequency enter the picture?
>
>Reaactance depends on it. I must not understand your question.

Reg wrote that the Smith Chart doesn't work at low frequencies. Since
it's just a way of solving equations, it can't fail to work. What
'fails' is that at low frequencies, either different equations apply
(no) or different terms in the equations become significant (yes).
>>>
>>> If you mean that the characteristic impedances of 'transmission lines'
>>> at low frequencies aren't resistive, I quite agree.
>>> --
>> ================================
>>
>> The characteristic impedances of ALL practical lines aren't resistive.

Well, yes, but at high enough frequencies, the reactive term is small.

Zo^2 = (R + jwL)/(G + jwC)

For high enough w (omega), provided R (series resistance) and G (shunt
loss resistance) are low, Zo^2 = L/C.

> But
>> your statement just about sums up the situation.

You agree with my explanation above, that it's not the chart that
'fails', but that terms in the equations change significance at low
frequencies?
--
Regards, John Woodgate, OOO - Own Opinions Only.
The good news is that nothing is compulsory.
The bad news is that everything is prohibited.
http://www.jmwa.demon.co.uk Also see http://www.isce.org.uk

1344. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-01 05:39:48 UTC
From: John Woodgate <jmw@jmwa.demon.contraspam.yuk>
Message-ID: <Ea$0AoAkIIDBFwmi@jmwa.demon.co.uk>
Source record: 24378
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

I read in sci.electronics.design that John Larkin <jjlarkin@highlandSNIP
techTHISnologyPLEASE.com> wrote (in <oh4og0d6dh8lj6rqgbks5k44gonil7dk64@
4ax.com>) about 'S - Y Parameter conversion with Smith Chart', on Sat,
31 Jul 2004:
>On Sat, 31 Jul 2004 20:34:48 +0000 (UTC), "Reg Edwards"
><g4fgq.regp@ZZZbtinternet.com> wrote:
>
>>The Smith Chart has served its purpose.
>>
>>It was a much-simplified version of earlier, more complicated charts, dating
>>back to the Victorian age used to solve electrical engineering problems
>>involving complex hyperbolic functions.
>>
>>It applied ONLY to the HF spectrum, serious calculating errors occurr if
>>applied to the LF spectrum and below although few engineers realised this.
>
>
>What's the cutoff frequency below which a Smith Chart won't work?
>
See my post about characteristic impedance at low frequencies.
--
Regards, John Woodgate, OOO - Own Opinions Only.
The good news is that nothing is compulsory.
The bad news is that everything is prohibited.
http://www.jmwa.demon.co.uk Also see http://www.isce.org.uk

1345. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-01 05:41:17 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cehvpt$40v$1@titan.btinternet.com>
Source record: 24375
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

> C'mon Reg, answer the question. What is there about a Smith chart that
> makes it incorrect at low frequencies?
>
> John

==========

There is nothing whatsoever the matter with the chart. It does no more and no less than what it is intended for.

There is everything the matter with the user - begining with a lack of education!

Reg.

1346. Re: Receive NDB beacons ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-01 05:46:45 UTC
From: Solomon Fernblatt <spamfree@myhome>
Message-ID: <4Lednc2V7aMvHpHcRVn-pA@giganews.com>
Source record: 24376
Cross-posted to: alt.radio.scanner,rec.radio.amateur.homebrew,rec.radio.scanner,sci.electronics.design

Ken Scharf wrote:

> Damien Teney wrote:
>
>> Hello everybody,
>> I wonder if anyone has already tried to receive the signal of NDB
>> beacons ?
>> These are long-range radio beacons, used by aircrafts for navigation,
>> operating in the frequencies from stg like 200 to 500 KHz I think. Their
>> signal is AM-modulated with a sound signal of their code (three
>> letters) in
>> morse.
>>
>> It would be an interesting project to build a receiver and ADF for these
>> beacons, but I'd like to know if anyone has already tried that.
>>
>> Thanks for your answers ;-)
>>
>>
> Any BC453 receivers left in those junk boxes? I have a BC1206 that
> hasn't been converted, if anybody really wants it we can haggle.
> (covers 200-400khz, runs off 28vdc all loktal tubes with 28v on the
> plates!).
>
>
If you can find one in decent working or rebuildable shape, look for
a BC-314 (12 vdc) or BC-344 (120 vac) receiver. It tunes from 150kc to
1500kc,and is the best darned AMBC/NDB receiver I've ever had, will even
dig out stuff my R-390 and Super Pro can't hear, plus it goes down lower
in freq. Used one from the 70's through the mid-80's then foolishly gave
it away, just recently found another. The BC-1206 is not a bad little
RX, but is a very "simple" set, even compared to the BC-453.

What type of conversion were you going to do on the 1206? I remember
solid-stating one years ago. I have the stock schematic if anyone needs
it BTW. Email me direct, not with the email shown on the top of the
post, though. Actual email address can be found on QRZ.com under NU4G.

Tom NU4G
manchester, TN

1347. Re: Receive NDB beacons ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-01 05:51:11 UTC
From: Solomon Fernblatt <spamfree@myhome>
Message-ID: <4LedncyV7aMnGZHcRVn-pA@giganews.com>
Source record: 24379
Cross-posted to: alt.radio.scanner,rec.radio.amateur.homebrew,rec.radio.scanner,sci.electronics.design

Richard wrote:

> Hi,
>
> you might find ou are better of buying one of the ready made LF converters,
> sometimes they go very cheap on ebay.
>
> Yes, I do NDB DXing, I can send you some links if you like. Mial me
> directly. Its an interesting hobby!
>
>

Jackson Harbor Press has an excellent LF convertor kit for 12 bucks,
or 2 for $22. Works well. Just put one together, took less than a
half hour!

Tom NU4G
actual email address on qrz.com under my call

1348. VLF Coverter kit available

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-01 05:59:57 UTC
From: Solomon Fernblatt <spamfree@myhome>
Message-ID: <5_-dnWOvDupXG5HcRVn-hw@giganews.com>
Source record: 24380
Cross-posted to: alt.radio.scanner,rec.radio.amateur.homebrew,rec.radio.scanner

The Non Directional Beacon thread got me to thinking about this
very inexpensive kit I just built. $12 each, 2 for $22.75, shipped.

http://home.att.net/~jacksonharbor/lfconv.htm

Simple to assemble kit, works well, though I had to add
a few more poles of LPF in front of it to get the AM broadcast
out. The guy gives you your choice of crystals for whatever
band you want to upconvert to. Manual for the board is on
the site. I highly recommend this, especially for folks just
starting out exploring LF and VLF - this upconverts from a bit
above 10 KHz to 500 Khz. Surprisingly enough, there is still
lots of signals to hear down there. Go to lwca.org for more
information and links to VLF and LF info.

Tom NU4G Manchester, TN
Real address is my call at fernblatt.net

1349. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-01 06:17:55 UTC
From: Activ8 <reply2group@ndbbm.net>
Message-ID: <1qqjyblf14xnh$.dlg@news.individual.net>
Source record: 24381
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

On Sun, 01 Aug 2004 05:16:58 GMT, Jerry Martes wrote:

> ike

Oh, a nick name.
>
> I have convinced myself that the Smith Chart alows it to be determned if
> it is preferable to add series (+ or - X), or Shunt (+ or - X) depending
> where the complex Z plots on the Chart.

Is it possible that this method of which I have no knowledge could
determine that you need to do this

```
|
C| RFC
C|
C|
|
| || ||
+----||---+-----||--
| || | ||
| C|
|/ C|
-| C|
|> |
|
```

when you really need an LP pi for harmonic suppression? Please
elaborate. Sounds like an excellent contribution waiting to happen
to those who are teachable.

> I really admire the guys who can match impedances with math only. I just
> dont have good study habits, so I'm not smart.

Eh? It's not math. It's arithemetic. Give yourself more credit.

Match 50 + j25 to 50 + j0 .... ok you need -j25 which is a series
cap that suppressed no harmonics or a practical shunt inductor that
does. Assume I'm assuming the application I'm assuming ;)

How do you infer the correct topology from the chart only?

--
Best Regards,
Mike

1350. Re: Handy coax loss calculator

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-01 06:33:38 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <690Pc.9546$cd2.63@clgrps12>
Source record: 24382

Behold, John Miles signalled from keyed 4-1000A filament:

> Maybe I'm the last one to run across this, but...
>
> http://www.timesmicrowave.com/cgi-bin/calculate.pl

Thanks John!

I'm an "online calculator" junkie and I didn't have this one ;-)

--
Gregg t3h g33k
"Ratings are for transistors....tubes have guidelines"
http://geek.scorpiorising.ca

1351. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-01 06:49:33 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <1o0Pc.2951$UN2.474@nwrddc02.gnilink.net>
Source record: 24383
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

MMike

I havent learned to type either.

I wrote a short article in Electronic Design magazine in 1966 wherin I outlined a simple way of predicting which combinations of series and shunt reactances would be most appropriate for matching any given impedance. I'd have to re-read it to learn what I wrote. I sure couldnt give any advice about using a Smith Chart from "the top of my head". I've been away from engineering since 1969 when I was layed off from TRW.
The basic thought elaborated on in the article was -- divide the Chart into 8 sections, chosen to identify what combination of reactances are most suited for producing a match. I think that anyone who worked for a short time with impedance matching would find the article unnecessary.
The article included some information on how a Z theta chart can be usefull in analyzing how transmission line transformers effect impedances.
I have forgotten everything I ever knew about Z theta Charts.

"Activ8" <reply2group@ndbbm.net> wrote in message
news:1qqjyblf14xnh$.dlg@news.individual.net...
> On Sun, 01 Aug 2004 05:16:58 GMT, Jerry Martes wrote:
>
> > ike
>
> Oh, a nick name.
> >
> > I have convinced myself that the Smith Chart alows it to be determned
if
> > it is preferable to add series (+ or - X), or Shunt (+ or - X) depending
> > where the complex Z plots on the Chart.
>
> Is it possible that this method of which I have no knowledge could
> determine that you need to do this
>
>
> |
> C| RFC
> C|
> C|
> |
> | || ||
> +----||---+-----||--
> | || | ||
> | C|

> |/ C|
> -| C|
> |> |
> |
>
>
> when you really need an LP pi for harmonic suppression? Please
> elaborate. Sounds like an excellent contribution waiting to happen
> to those who are teachable.
>
> > I really admire the guys who can match impedances with math only. I
just
> > dont have good study habits, so I'm not smart.
>
> Eh? It's not math. It's arithemetic. Give yourself more credit.
>
> Match 50 + j25 to 50 + j0 .... ok you need -j25 which is a series
> cap that suppressed no harmonics or a practical shunt inductor that
> does. Assume I'm assuming the application I'm assuming ;)
>
> How do you infer the correct topology from the chart only?
>
> --
> Best Regards,
> Mike

1352. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-01 06:55:02 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cei446$3f$1@hercules.btinternet.com>
Source record: 24384
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

Cecil says,
> All graphs are redundant and can be replaced by equations or tables.
> However, a picture (graph) is still worth a thousand words (or numbers).
> A glance at a graph tells me more than an hour of studying endless rows
> and columns of numbers.
> --
==========

Depending on our particular educational history, we all have our separate preferred ways of studying technical situations. And we all usually come to the same correct conclusions.

I too become exhausted by studying endless rows and columns of mere numbers.

Graphs are indeed very useful. But I often find that the form of a mathematical equation provides just as deep an insight into what is really going on in the practical world. Praps I am fortunate at being equally adept at both analytical forms. It must have begun during my school days.

The advantage of equations over graphs is that they are nearer to the quantitative than they are to the qualitative world. They are more precise. And in engineering it is numbers which, ultimately, matter most.

Reg, G4FGQ

1353. Re: Aluminium Foil as basis of tuning capacitors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-01 07:14:47 UTC
From: mike@corn2.freeserve.co.uk
Message-ID: <410c96ff.103673371@news.freeserve.net>
Source record: 24385

On Sat, 31 Jul 2004 13:56:46 +0100, "Airy R. Bean" <me@privacy.net>
wrote:

>
>"Airy R. Bean" <me@privacy.net> wrote in message
>news:2n1jasFrj8upU1@uni-berlin.de...
>> Has anyone experimented with making up large air-spaced
>> capacitors for ATU use out of Aluminium Foil?
>>
If you look in Radcom Sept-2000 to Jan-2001 under the article
"PicATUne", you will find an interesting series of articles about
building an 150W ?? auto ATU with home constructed capacitors.
They used Freezer bag plastic (specific type mentioned)dielectric,
some form of grease (to exclude air) and brass shim for values from
18pf to over 1000pf.
I guess the aluminium foil would be just as good, if not better, if
you can make a good electrical connection to it.
hth, 72 de Mike W, G8NXD qthr
--

1354. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-01 07:44:19 UTC
From: John Woodgate <jmw@jmwa.demon.contraspam.yuk>
Message-ID: <2rSoc3AT9JDBFwSz@jmwa.demon.co.uk>
Source record: 24386
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

I read in sci.electronics.design that Activ8 <reply2group@ndbbm.net>
wrote (in <1qqjyblf14xnh$.dlg@news.individual.net>) about 'S - Y
Parameter conversion with Smith Chart', on Sun, 1 Aug 2004:

>How do you infer the correct topology from the chart only?

You can't. But then the chart doesn't act as a typewriter or Turkish
bath, either. The chart will give you both T and pi solutions. You make
the choice between them on other grounds, such as harmonic suppression.
--
Regards, John Woodgate, OOO - Own Opinions Only.
The good news is that nothing is compulsory.
The bad news is that everything is prohibited.
http://www.jmwa.demon.co.uk Also see http://www.isce.org.uk

1355. Early PSK-20 manual wanted.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-01 08:05:39 UTC
From: ablight@alphalink.com.au
Message-ID: <1fc7b362.0408010005.ca7d2bb@posting.google.com>
Source record: 24387

Hi All,
after an early model PSK-20 manual - its the model with 3 by 3.5mm
jacks, and the DB9 connector in the back. The manual available on the
smallwonderlabs website is for the current version which uses TX audio
to activate the TX/RX switching.

de VK3BFA Andrew

1356. Fascinating LORAN article in N&V

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-01 10:55:54 UTC
From: John Walton <jdwalton@comcast.net>
Message-ID: <7s2dnZAXqN6mVpHcRVn-tw@comcast.com>
Source record: 24388

This month's issue has a fascinating description of the last "tube" LORAN transmitter -- which just went SK -- the cooling chamber for the final PA is about the size of my basement! It's been replaced by solid-state.

1357. Re: PLEASE READ - Internet site under legal attack by Radioshack corp.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-01 11:21:02 UTC
From: rc <rc@roncrowley.dot.com>
Message-ID: <36kpg01v0uff6ndb6elkp5tvgg99h4uv8d@4ax.com>
Source record: 24389
Cross-posted to: alt.radio.wktu,rec.radio.amateur,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy

On Thu, 29 Jul 2004 18:35:40 GMT, "DSL"
<retiredltNOSPAM@NOSPAMoptonline.net> wrote:

>For more information and daily updates please visit:

Where do people get the notion that the first ammendment gives them
the right to write anything about anyone for any reason?

I hope Radio Shack kicks your ass!

Ron, W1WBV

1358. Re: Bug key damper?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-01 12:29:14 UTC
From: K7MEM <k7mem@myrealbox.com>
Message-ID: <410CE21A.2040800@myrealbox.com>
Source record: 24390

John Crabtree wrote:
>>From: K7MEM k7mem@myrealbox.com
>>Date: 7/31/04 4:35 PM Central Daylight Time
>>Message-id: <410C10A2.4010202@myrealbox.com>
>>
>>Airy R. Bean wrote:
>>
>>>Is the purpose to damp the oscillator when the operating
>>>lever returns to the central position?
>>>
>>>With the brass ring, presumably being loose, it is lifted slightly
>>>by the returning-to-zero oscillator?
>>>
>>>
>>>"Walt Davidson" <g3nyy@despammed.com> wrote in message
>>>news:3jmng09fe8ja5c3nbtsgnj1l7ies3joqj3@4ax.com...
>>>
>>>
>>>>On Sat, 31 Jul 2004 18:22:20 +0100, "Airy R. Bean" <me@privacy.net>
>>>>wrote:
>>>>
>>>>
>>>>>In anticipation of making a bug key up from bits
>>>>>of brass and old clock springs, what form does the
>>>>>damper take?
>>>>
>>>>On a Vibroplex bug, the damper is a heavy brass ring (sometimes chrome
>>>>plated), loosely suspended on a bolt.
>>>>You can see pictures of examples here:
>>>>http://www.la.ca.us/frandy/gallery.html
>>>>On an Eddystone bug, it is a small rubber cushion mounted on an
>>>>adjustable bracket fixed to the base-plate.
>>>>http://www.zianet.com/sparks/eddybig2.html
>>>
>>I have a copy of a article originally published by Brian Murphy,
>>VE2AGO in QST Magazine (date unknown). It is an article on how
>>to properly adjust a semi-automatic key, or bug. It gives you a
>>lot of insight into what all the adjustments are for and and
>>nice overhead drawing of an automatic key.
>>
>>If you do make one you are going to have to adjust it anyway.
>>If you like, I can send you the files via email. There is only two
>>files, one html and one gif. Or, I can probably post it somewhere on
>>the net. Let me know. The email in the sig works.

>>
>>--
>>Martin E. Meserve
>>k7mem@myrealbox.com
>>http://www.k7mem.150m.com
>
>
> The article was in QST, Feb 1968, pp60-61. The author's call was VE2AGQ (q not
> o).
>
> 73 John KC0GGH

Thanks John. I'll add that to my copy of the article. I'll fix his call
too. I don't know why it was wrong because I only did a cut/paste to
copy the article originally. I guess things get lost in translation.

--
Martin E. Meserve
k7mem@myrealbox.com
http://www.k7mem.150m.com

1359. Re: Bug key damper?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-01 13:38:41 UTC
From: crabtreejr@aol.com
Message-ID: <20040801093841.04822.00000822@mb-m05.aol.com>
Source record: 24391

>Subject: Re: Bug key damper?
>From: K7MEM k7mem@myrealbox.com
>Date: 8/1/04 7:29 AM Central Daylight Time
>Message-id: <410CE21A.2040800@myrealbox.com>
>
>John Crabtree wrote:
>>>From: K7MEM k7mem@myrealbox.com
>>>Date: 7/31/04 4:35 PM Central Daylight Time
>>>Message-id: <410C10A2.4010202@myrealbox.com>
>>>
>>> snip >>
>>>I have a copy of a article originally published by Brian Murphy,
>>>VE2AGO in QST Magazine (date unknown). It is an article on how
>>>to properly adjust a semi-automatic key, or bug. It gives you a
>>>lot of insight into what all the adjustments are for and and
>>>nice overhead drawing of an automatic key.
>>>
>>>If you do make one you are going to have to adjust it anyway.
>>>If you like, I can send you the files via email. There is only two
>>>files, one html and one gif. Or, I can probably post it somewhere on
>>>the net. Let me know. The email in the sig works.
>>>
>>>--
>>>Martin E. Meserve
>>
>> The article was in QST, Feb 1968, pp60-61. The author's call was VE2AGQ
>> (q not o).
>>
>> 73 John KC0GGH
>
>Thanks John. I'll add that to my copy of the article. I'll fix his call
>too. I don't know why it was wrong because I only did a cut/paste to
>copy the article originally. I guess things get lost in translation.
>-
>Martin E. Meserve
>k7mem@myrealbox.com
>http://www.k7mem.150m.com

Definitely. The article is on the Vibroplex web site, albeit with a revised diagram. The call is wrong there too. The original article shows 've2agq', as does the ARRL online QST index.

73 John KC0GGH

1360. Re: Part 15 info need for broadcasting

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-01 14:07:11 UTC
From: Polk <polk@slow-polk-.com>
Message-ID: <10gpu8flpti974d@corp.supernews.com>
Source record: 24392

On 2004-08-01, DJboutit <Recordking@Hotmail.com> wrote:
> am looking for a good part 15 to broadcast music which one would you guys
> suggest. I am looking for decent sound and good range from a part 15 setup.
> I also need info on the transmitter and the antenna I be willing to build
> some stuff but buying the stuff would be better.
>
>

Check out Ramsey kits or ebay.

1361. Re: Handy coax loss calculator

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-01 14:13:18 UTC
From: Terry <tsanford@nf.sympatico.ca>
Message-ID: <RT6Pc.2910$Vm1.30445@news20.bellglobal.com>
Source record: 24393

"Gregg" <nospam@unknown.org> wrote in message
news:690Pc.9546$cd2.63@clgrps12...
> Behold, John Miles signalled from keyed 4-1000A filament:
>
> > Maybe I'm the last one to run across this, but...
> >
> > http://www.timesmicrowave.com/cgi-bin/calculate.pl
>
> Thanks John!
>
> I'm an "online calculator" junkie and I didn't have this one ;-)
>
> --
> Gregg t3h g33k
> "Ratings are for transistors....tubes have guidelines"
> http://geek.scorpiorising.ca

Many thanks for posting the link. same here all these 'calculators' get one thinking!
It doesn't, however, mention RG-8?
I wanted to compare the difference, at around 160 mHz (marine VHF), between retaining existing RG-58 or replacing with RG-8, for the approx 40 feet from top of our sail boat mast to the VHF transceiver. So I used RG-213? instead.
Difference about 1 dB. Or approx 20%. probably not really worth while?
Terry.

1362. Re: PLEASE READ - Internet site under legal attack by Radioshack corp.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-01 14:50:07 UTC
From: Mike Yetsko <joe@user.com>
Message-ID: <10gq1io5fd3jv74@corp.supernews.com>
Source record: 24394
Cross-posted to: alt.radio.wktu,rec.radio.amateur,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy

"DSL" <retiredltNOSPAM@NOSPAMoptonline.net> wrote in message
news:V%aOc.18881$oE1.1782652@news4.srv.hcvlny.cv.net...
> Your Freedoms are in jeopardy! RadioShack Corporation has filed an
> injunction in a Texas Court that has shut down an opinion website,
> http://www.radioshacksucks.com, in direct violation of the Freedoms of
> Speech, Expression and Peaceful Assembly, as guaranteed to us by the
> Constitution of the United States. If other companies learn of this, they
> will use it against any website that speaks out against that company. This
> is extremely dangerous, as it will change the face and scope of the
> Internet.

Usually when I see someone bitching about Radio Shack it's from one of
the small brained no-lifers who get their kicks from going to Radio Shack
and trying to show off how much more technically intelligent they are than
the clerks behind the counter.

Unfortunately, I can't make an assessment of your web site to see if it's
of the same ilk, because it appears to be shut down.

Awww.....

Let's all say 'Too F...in Bad" in unison. Doesn't seem like you're getting
the
internet support you wanted!

If you don't like Radio Shack, why do you go there? Unless, of course,
you like the abuse you think you get, and go just to get more ammo!

Wait, I didn't come here for abuse, I came for an argument! Arguments
are two doors down on the right.

1363. Re: Bug key damper?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-01 15:16:17 UTC
From: Joe McElvenney <ximac@btinternet.com>
Message-ID: <VA.0000002b.001e68e9@btinternet.com>
Source record: 24395
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

Hi,

Years ago, on a field day, I saw a local keying a homebrew contraption that he'd made whilst an operator in the RAF. It consisted of a conventional pump-handle key with a short piece of hacksaw blade clamped under the knob on which there was a sliding weight. After some practice he'd managed to produce quite respectable Morse out of this thing.

It appears that some years previously he'd been working a circuit from Gib back to the UK on which they weren't allowed bugs. In fact they got into trouble if caught using one. As it happened the RN operators at the other end were allowed them. After a time all the QLF's and "Put your mother on instead", got to them so someone invented this accessory which could be quickly hidden and pocketed when going off watch.

Cheers - Joe, G3LLV

1364. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-01 15:19:16 UTC
From: Activ8 <reply2group@ndbbm.net>
Message-ID: <1mc55eaaf5o18.dlg@news.individual.net>
Source record: 24396
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

On Sun, 1 Aug 2004 06:38:31 +0100, John Woodgate wrote:

> I read in sci.electronics.design that Activ8 <reply2group@ndbbm.net>
> wrote (in <1kpirajws18ml$.dlg@news.individual.net>) about 'S - Y
> Parameter conversion with Smith Chart', on Sun, 1 Aug 2004:
>>On Sun, 1 Aug 2004 02:19:02 +0000 (UTC), Reg Edwards wrote:
>>
>>>> Could you please explain that a bit more? The chart is a graphical way
>>>> of doing mathematics. Where does frequency enter the picture?
>>
>>Reaactance depends on it. I must not understand your question.
>
> Reg wrote that the Smith Chart doesn't work at low frequencies. Since
> it's just a way of solving equations, it can't fail to work. What
> 'fails' is that at low frequencies, either different equations apply
> (no) or different terms in the equations become significant (yes).
>>>>
>>>> If you mean that the characteristic impedances of 'transmission lines'
>>>> at low frequencies aren't resistive, I quite agree.
>>>> --
>>> ================================
>>>
>>> The characteristic impedances of ALL practical lines aren't resistive.
>
> Well, yes, but at high enough frequencies, the reactive term is small.
>
> Zo^2 = (R + jwL)/(G + jwC)
>
> For high enough w (omega), provided R (series resistance) and G (shunt
> loss resistance) are low, Zo^2 = L/C.
>
>> But
>>> your statement just about sums up the situation.
>
> You agree with my explanation above, that it's not the chart that
> 'fails', but that terms in the equations change significance at low
> frequencies?

Makes sense to me, but I think you're asking Reg, judging by the
number of quote ">" characters.
--
Best Regards,
Mike

1365. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-01 15:24:54 UTC
From: Activ8 <reply2group@ndbbm.net>
Message-ID: <1s0gjpwyci1o8$.dlg@news.individual.net>
Source record: 24397
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

On Sun, 01 Aug 2004 06:49:33 GMT, Jerry Martes wrote:

> MMike
>
> I havent learned to type either.
>
> I wrote a short article in Electronic Design magazine in 1966 wherin I
> outlined a simple way of predicting which combinations of series and shunt
> reactances would be most appropriate for matching any given impedance. I'd
> have to re-read it to learn what I wrote. I sure couldnt give any advice
> about using a Smith Chart from "the top of my head". I've been away from
> engineering since 1969 when I was layed off from TRW.

Oh, your just a boatload of good news from the past :(The TRW here
in this area (valve division) is moving to Asia. The state offered
them money to stay, but it was too late. Mgmt had already issued the
decree.

> The basic thought elaborated on in the article was -- divide the Chart
> into 8 sections, chosen to identify what combination of reactances are most
> suited for producing a match. I think that anyone who worked for a short
> time with impedance matching would find the article unnecessary.
> The article included some information on how a Z theta chart can be
> usefull in analyzing how transmission line transformers effect impedances.
> I have forgotten everything I ever knew about Z theta Charts.

So is that EDN and would they have the article online?
>

--
Best Regards,
Mike

1366. Re: Bug key damper?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-01 16:17:46 UTC
From: "Jock." <real_class_a2003@yahoo.fr>
Message-ID: <2r5qg0tjqtu2aoa5esjisi7v8k7llkbr4m@4ax.com>
Source record: 24398
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

On Sun, 1 Aug 2004 15:16:17 +0000 (UTC), Joe McElvenney <ximac@btinternet.com> wrote:

>Hi,
>
> Years ago, on a field day, I saw a local keying a homebrew
>contraption that he'd made whilst an operator in the RAF. It
>consisted of a conventional pump-handle key with a short piece of
>hacksaw blade clamped under the knob on which there was a sliding
>weight. After some practice he'd managed to produce quite
>respectable Morse out of this thing.

Used to use a standard issue mess knife on the end
of an RAF Type F ...

> It appears that some years previously he'd been working a
>circuit from Gib back to the UK on which they weren't allowed
>bugs. In fact they got into trouble if caught using one. As it
>happened the RN operators at the other end were allowed them.
>After a time all the QLF's and "Put your mother on instead", got
>to them so someone invented this accessory which could be quickly
>hidden and pocketed when going off watch.

:o)

--

Jock.
Class A (Hons)

1367. Re: Bug key damper?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-01 16:19:27 UTC
From: "Claremont, Stronsay" <ricardbruce@btinternet.com>
Message-ID: <cej56f$p5p$1@titan.btinternet.com>
Source record: 24399
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

"Joe McElvenney" <ximac@btinternet.com> wrote in message
news:VA.0000002b.001e68e9@btinternet.com...
> Hi,
>
> Years ago, on a field day, I saw a local keying a homebrew
> contraption that he'd made whilst an operator in the RAF. It
> consisted of a conventional pump-handle key with a short piece of
> hacksaw blade clamped under the knob on which there was a sliding
> weight. After some practice he'd managed to produce quite
> respectable Morse out of this thing.
>
> It appears that some years previously he'd been working a
> circuit from Gib back to the UK on which they weren't allowed
> bugs. In fact they got into trouble if caught using one. As it
> happened the RN operators at the other end were allowed them.
> After a time all the QLF's and "Put your mother on instead", got
> to them so someone invented this accessory which could be quickly
> hidden and pocketed when going off watch.

The RAF banned bug keys because they were alleged to encourage bad morse
(lots of QSD ZBM2). The real reason was that the RAF could not be bothered
to splash out the cash to buy the keys and then train their operators to use
them properly.
--
Bruce Fletcher
Stronsay, Orkney
(NOTE: to reply you MUST replace bruce with ian)
http://www.stronsay.co.uk/claremont

1368. Re: Bug key damper?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-01 16:42:26 UTC
From: "Jock." <real_class_a2003@yahoo.fr>
Message-ID: <ga7qg098hnti3gdbt9ffn66ub66ntoocl8@4ax.com>
Source record: 24400
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

On Sun, 1 Aug 2004 16:19:27 +0000 (UTC), "Claremont, Stronsay"
<ricardbruce@btinternet.com> wrote:

>
>"Joe McElvenney" <ximac@btinternet.com> wrote in message
>news:VA.0000002b.001e68e9@btinternet.com...
>> Hi,
>>
>> Years ago, on a field day, I saw a local keying a homebrew
>> contraption that he'd made whilst an operator in the RAF. It
>> consisted of a conventional pump-handle key with a short piece of
>> hacksaw blade clamped under the knob on which there was a sliding
>> weight. After some practice he'd managed to produce quite
>> respectable Morse out of this thing.
>>
>> It appears that some years previously he'd been working a
>> circuit from Gib back to the UK on which they weren't allowed
>> bugs. In fact they got into trouble if caught using one. As it
>> happened the RN operators at the other end were allowed them.
>> After a time all the QLF's and "Put your mother on instead", got
>> to them so someone invented this accessory which could be quickly
>> hidden and pocketed when going off watch.
>
>The RAF banned bug keys because they were alleged to encourage bad morse
>(lots of QSD ZBM2). The real reason was that the RAF could not be bothered
>to splash out the cash to buy the keys and then train their operators to use
>them properly.

It was bad enough training them to use a straight key, never mind a bug!

--

Jock.
Class A (Hons)

1369. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-01 16:43:28 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <Q49Pc.3516$QA5.531@nwrddc01.gnilink.net>
Source record: 24401
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

Mike

The Electronic Design article is only 4 pages. I could easily E-mail it
to you.

Jerry

"Activ8" <reply2group@ndbbm.net> wrote in message
news:1s0gjpwyci1o8$.dlg@news.individual.net...
> On Sun, 01 Aug 2004 06:49:33 GMT, Jerry Martes wrote:
>
> > MMike
> >
> > I havent learned to type either.
> >
> > I wrote a short article in Electronic Design magazine in 1966 wherin I
> > outlined a simple way of predicting which combinations of series and
shunt
> > reactances would be most appropriate for matching any given impedance.
I'd
> > have to re-read it to learn what I wrote. I sure couldnt give any
advice
> > about using a Smith Chart from "the top of my head". I've been away
from
> > engineering since 1969 when I was layed off from TRW.
>
> Oh, your just a boatload of good news from the past :(The TRW here
> in this area (valve division) is moving to Asia. The state offered
> them money to stay, but it was too late. Mgmt had already issued the
> decree.
>
> > The basic thought elaborated on in the article was -- divide the
Chart
> > into 8 sections, chosen to identify what combination of reactances are
most
> > suited for producing a match. I think that anyone who worked for a
short
> > time with impedance matching would find the article unnecessary.
> > The article included some information on how a Z theta chart can be
> > usefull in analyzing how transmission line transformers effect
impedances.
> > I have forgotten everything I ever knew about Z theta Charts.
>
> So is that EDN and would they have the article online?

> >
>
> --
> Best Regards,
> Mike

1370. mrf150

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-01 16:44:20 UTC
From: trevor waters <trefwaters@gw4imc.freeserve.co.uk>
Message-ID: <cej6l2$gr9$1@news5.svr.pol.co.uk>
Source record: 24402

wanted
4 MRF150 fets
all postage paid
let me know your prive
73
GW4IMC
trefwaters@gw4imc.freeserve.co.uk

1371. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-01 17:01:08 UTC
From: Activ8 <reply2group@ndbbm.net>
Message-ID: <jc4l57910h12$.dlg@news.individual.net>
Source record: 24403
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

On Sun, 01 Aug 2004 16:43:28 GMT, Jerry Martes wrote:

> Mike
>
> The Electronic Design article is only 4 pages. I could easily E-mail it
> to you.
>
> Jerry
>
I'd appreciate that. I'll backchannel you with my email addy. I'd
suggest you obfuscate yours in the future - the posting and reply
address in your news reader. The spam bots mine these groups and
it's gotten quite ugly for some in the recent past.

You might alternately consider posting it to
alt.binaries.schematics.electronic under an appropriately
descriptive title.

--
Best Regards,
Mike

1372. Re: Bug key damper?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-01 18:13:57 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2n4t52Fsh4edU1@uni-berlin.de>
Source record: 24404
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

I've got a copy of such articles, however, they don't
describe the form of the damper.

"K7MEM" <k7mem@myrealbox.com> wrote in message
news:410C10A2.4010202@myrealbox.com...
> Airy R. Bean wrote:
> > Is the purpose to damp the oscillator when the operating
> > lever returns to the central position?
> >
> > With the brass ring, presumably being loose, it is lifted slightly
> > by the returning-to-zero oscillator?
> >
> >
> > "Walt Davidson" <g3nyy@despammed.com> wrote in message
> > news:3jmng09fe8ja5c3nbtsgnj1l7ies3joqj3@4ax.com...
> >
> >>On Sat, 31 Jul 2004 18:22:20 +0100, "Airy R. Bean" <me@privacy.net>
> >>wrote:
> >>
> >>>In anticipation of making a bug key up from bits
> >>>of brass and old clock springs, what form does the
> >>>damper take?
> >>
> >>On a Vibroplex bug, the damper is a heavy brass ring (sometimes chrome
> >>plated), loosely suspended on a bolt.
> >>You can see pictures of examples here:
> >>http://www.la.ca.us/frandy/gallery.html
> >>On an Eddystone bug, it is a small rubber cushion mounted on an
> >>adjustable bracket fixed to the base-plate.
> >>http://www.zianet.com/sparks/eddybig2.html
>
> I have a copy of a article originally published by Brian Murphy,
> VE2AGO in QST Magazine (date unknown). It is an article on how
> to properly adjust a semi-automatic key, or bug. It gives you a
> lot of insight into what all the adjustments are for and and
> nice overhead drawing of an automatic key.
>
> If you do make one you are going to have to adjust it anyway.
> If you like, I can send you the files via email. There is only two
> files, one html and one gif. Or, I can probably post it somewhere on
> the net. Let me know. The email in the sig works.
>
> --

> Martin E. Meserve
> k7mem@myrealbox.com
> http://www.k7mem.150m.com
>

1373. Re: Bug key damper?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-01 19:01:32 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2n4t53Fsh4edU3@uni-berlin.de>
Source record: 24405
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

OK, which brings me on to the next question.....

Presumably, when the dot paddle is pushed, the centre of
the pendulum oscillation should be just at the point of the
contact closing, for then half of the swing will be contact,
and the other half will be no contact, so giving a 50-50
mark-space ratio?

Thus giving the reason why the dot contact has to be a little
spring, to allow "give" when the pendulum swings further
toward the already-closed dot contact? If this is so, this will
lay the way open to use a pair of contacts taken from a relay, and
to replace the spring with a little rod actuator.

I suppose that what I really need to do is to find someone
close to me who has such a key (or a Mecograph) and to spend
a couple of hours evaluating its operation!

"Walt Davidson" <g3nyy@despammed.com> wrote in message
news:um9og0pg8j02iate7ou5gn3supplh9gf8j@4ax.com...
> On Sat, 31 Jul 2004 20:12:22 +0100, "Airy R. Bean" <me@privacy.net>
> wrote:
> >Is the purpose to damp the oscillator when the operating
> >lever returns to the central position?
> Yes. It damps the vibrations of the "pendulum" rod which generates
> the dots.
> >With the brass ring, presumably being loose, it is lifted slightly
> >by the returning-to-zero oscillator?
> Yes. Therefore it acts as a cushion ... albeit a metallic one.

1374. Re: Bug key damper?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-01 19:53:27 UTC
From: microwaves@blueyonder.co.uk
Message-ID: <410d494d.35219262@news.blueyonder.co.uk>
Source record: 24406
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

On Sun, 1 Aug 2004 15:16:17 +0000 (UTC), Joe McElvenney
<ximac@btinternet.com> wrote:

>Hi,
>
> Years ago, on a field day, I saw a local keying a homebrew
>contraption that he'd made whilst an operator in the RAF. It
>consisted of a conventional pump-handle key with a short piece of
>hacksaw blade clamped under the knob on which there was a sliding
>weight. After some practice he'd managed to produce quite
>respectable Morse out of this thing.

>
> Cheers - Joe, G3LLV
>

That must have been John, G3JRL , if it was at at a Sheffield field
day Joe. I remember it well though I seem to recall that it was a
table knife blade and handle rather than a hacksaw... but it's so long
ago I could very well be mistaken!

BTW .. this newgroup (uk.radio.amateur) is not for the faint hearted!
Be careful mate!
73

Peter, G3PHO

ps. ... got that aerial up yet???

1375. Re: Stability of huff & puff.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-01 22:30:08 UTC
From: Richard <nearlynews_email@ntlworld.com>
Message-ID: <2n595cFssvgjU1@uni-berlin.de>
Source record: 24407

"Richard Hosking" <richardh@iinet.net.au> wrote in message
news:410aed6d$0$16339$5a62ac22@per-qv1-newsreader-01.iinet.net.au...
> I used a micro to count the freq to 10Hz resolution instead of a shift
> register. The micro drives the LCD freq display, but also calculates any
> drift by comparing the current count to the "locked" count. It would
> output a pulse which was integrated by a loop filter/voltage follower. I
> am not sure about the math involved but in practice the loop behaved
> like a PLL and would oscillate with 10-20 Hz variations or wander about
> with some loop filter combinations, particularly if there was no damping
> in the loop. If you counted to 1 Hz resolution, then I presume you could
> get 1 Hz resolution in the loop. In practice this means counting over a
> long period (1 sec) and I suspect short term variations in the VFO freq
> (jumps or phase noise) could could the loop to lose lock or behave
> strangely, so the quality of the oscillator would be the limiting
> factor. It might be worth looking at one of the old HP sig gen circuits
> (eg 8640B) I think they used the "huff and puff" scheme to stabilize the
> oscillator.

Or maybe the HP 8640A, a lot cheaper.

If I built something myself, the question is, can any variable capacitor
actually tune in changes of just a few hertz at 2.0 Mhz. Is that possible
from a mechanical standpoint.

1376. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-01 23:29:49 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <410d7e1e_6@corp.newsgroups.com>
Source record: 24408
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

Jerry Martes wrote:
> I think you are wrong about Smith Charts being limited to use at low
> frequencies.

Probably what Reg is talking about is that the 1.0 normalized value
in the center of the Smith Chart lies on the purely resistive horizontal
line. Thus Z0 = 1.0 + j0 (normalized). Reg is probably saying that the
Z0 = 1.0 + j0 assumption is not valid at low frequencies for the average
transmission line.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1377. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-01 23:45:33 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <410d81ce_6@corp.newsgroups.com>
Source record: 24411
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

Reg Edwards wrote:
> The advantage of equations over graphs is that they are nearer to the
> quantitative than they are to the qualitative world.

Yes, and that is one of their disadvantages. An engineer can arrive
at a perfect quantitative solution without an iota of understanding
of the real-world qualitative physical processes. I personally am much
more interested in a conceptual understanding of the process than I
am in the accuracy of the abstract numbers which are the solution.
Graphs are a visual aid to conceptual understanding that equations
simply cannot match (even with a MENSA level IQ).
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1378. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-01 23:47:56 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <MifPc.8321$UN2.5865@nwrddc02.gnilink.net>
Source record: 24410
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

Cecil

I can se a couple problems. Both are mine. First, I should have written
that someone is wrong about Smith Charts being *FROM* use at low
frequencies. Second, there was no value in my posting something that was
already covered by others.
I sure agree with anyone who points out that Smith Charts shouldnt be used
where they arent designed to work. I like smith Charts and thats probably a
result of my poor academic education.

Jerry

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:410d7e1e_6@corp.newsgroups.com...
> Jerry Martes wrote:
> > I think you are wrong about Smith Charts being limited to use at low
> > frequencies.
>
> Probably what Reg is talking about is that the 1.0 normalized value
> in the center of the Smith Chart lies on the purely resistive horizontal
> line. Thus Z0 = 1.0 + j0 (normalized). Reg is probably saying that the
> Z0 = 1.0 + j0 assumption is not valid at low frequencies for the average
> transmission line.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> ------== Over 100,000 Newsgroups - 19 Different Servers! =-----

1379. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-02 00:29:36 UTC
From: John Larkin <jjlarkin@highlandSNIPtechTHISnologyPLEASE.com>
Message-ID: <fd2rg098hkohtcao4lqh845dl49hcppdtv@4ax.com>
Source record: 24412
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

On Sun, 01 Aug 2004 18:45:33 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:

>Reg Edwards wrote:
>> The advantage of equations over graphs is that they are nearer to the
>> quantitative than they are to the qualitative world.
>
>Yes, and that is one of their disadvantages. An engineer can arrive
>at a perfect quantitative solution without an iota of understanding
>of the real-world qualitative physical processes. I personally am much
>more interested in a conceptual understanding of the process than I
>am in the accuracy of the abstract numbers which are the solution.
>Graphs are a visual aid to conceptual understanding that equations
>simply cannot match (even with a MENSA level IQ).

Richard Feynman, who had a decent IQ himself, said that he couldn't
approach anything analytically unless he managed to get an intuitive
feel for the thing first.

The good thing about "gut feel", from an engineering standpoint, is
that it's a good sanity check on the equations. My engineers sometimes
present me with an analytical result that just feels wrong to me, and
it usually - but not always - is. Graphs are also wonderful for
feeling how things work, just as analog meters sometimes are so much
more useful than digital ones.

John

1380. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-02 00:32:25 UTC
From: John Larkin <jjlarkin@highlandSNIPtechTHISnologyPLEASE.com>
Message-ID: <ip2rg0p2959kuirp5ahvilttja4pttnbfg@4ax.com>
Source record: 24413
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

On Sun, 01 Aug 2004 18:29:49 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:

>Jerry Martes wrote:
>> I think you are wrong about Smith Charts being limited to use at low
>> frequencies.
>
>Probably what Reg is talking about is that the 1.0 normalized value
>in the center of the Smith Chart lies on the purely resistive horizontal
>line. Thus Z0 = 1.0 + j0 (normalized). Reg is probably saying that the
>Z0 = 1.0 + j0 assumption is not valid at low frequencies for the average
>transmission line.

Smith charts can be used to solve purely lumped-element problems, too.

I wonder if Smith charts have ever been used for analyzing 50/60 Hz
power grids. Their losses are fairly low.

John

1381. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-02 00:43:35 UTC
From: Jim Thompson <thegreatone@example.com>
Message-ID: <su2rg05fieh1tpnahma0en650j77284bi9@4ax.com>
Source record: 24414
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

On Sun, 01 Aug 2004 17:29:36 -0700, John Larkin
<jjlarkin@highlandSNIPtechTHISnologyPLEASE.com> wrote:

[snip]
>
>
>Richard Feynman, who had a decent IQ himself, said that he couldn't
>approach anything analytically unless he managed to get an intuitive
>feel for the thing first.
>
[snip]
>
>John

I'm like that... if I can't get my hands around something, I can't
understand it. I had a helluva time with atomic physics ;-)

...Jim Thompson
--
James E.Thompson, P.E.	mens
Analog Innovations, Inc.	et
Analog/Mixed-Signal ASIC's and Discrete Systems	manus
Phoenix, Arizona Voice:(480)460-2350	
E-mail Address at Website Fax:(480)460-2142	Brass Rat
http://www.analog-innovations.com	1962

I love to cook with wine. Sometimes I even put it in the food.

1382. Re: Bug key damper?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-02 00:43:52 UTC
From: Barry Harris <corblimey@mail2juggler.com>
Message-ID: <c7gPc.542$Sd4.433@newsfe3-gui.ntli.net>
Source record: 24409
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

Airy R. Bean wrote:

> Is the purpose to damp the oscillator when the operating
> lever returns to the central position?
>
> With the brass ring, presumably being loose, it is lifted slightly
> by the returning-to-zero oscillator?

You tell us - you're the expert on everything aren't you?

Stupid Boy!

1383. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-02 00:48:01 UTC
From: Jim Thompson <thegreatone@example.com>
Message-ID: <cn3rg0purfdof9jeuoh2pu3b89k6if4ono@4ax.com>
Source record: 24415
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

On Sun, 01 Aug 2004 17:32:25 -0700, John Larkin
<jjlarkin@highlandSNIPtechTHISnologyPLEASE.com> wrote:

[snip]
>Smith charts can be used to solve purely lumped-element problems, too.
>
>I wonder if Smith charts have ever been used for analyzing 50/60 Hz
>power grids. Their losses are fairly low.
>
>John

I wouldn't be surprised... I've been told that they locate power line
faults using a reflectometer.

...Jim Thompson
--
James E.Thompson, P.E.	mens
Analog Innovations, Inc.	et
Analog/Mixed-Signal ASIC's and Discrete Systems	manus
Phoenix, Arizona Voice:(480)460-2350	
E-mail Address at Website Fax:(480)460-2142	Brass Rat
http://www.analog-innovations.com	1962

I love to cook with wine. Sometimes I even put it in the food.

1384. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-02 02:18:36 UTC
From: John Larkin <jjlarkin@highlandSNIPtechTHISnologyPLEASE.com>
Message-ID: <gb8rg0pfsfj3hst925pmo0fmts2u63oe50@4ax.com>
Source record: 24416
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

On Sun, 01 Aug 2004 17:43:35 -0700, Jim Thompson
<thegreatone@example.com> wrote:

>On Sun, 01 Aug 2004 17:29:36 -0700, John Larkin
><jjlarkin@highlandSNIPtechTHISnologyPLEASE.com> wrote:
>
>[snip]
>>
>>
>>Richard Feynman, who had a decent IQ himself, said that he couldn't
>>approach anything analytically unless he managed to get an intuitive
>>feel for the thing first.
>>
>[snip]
>>
>>John
>
>I'm like that... if I can't get my hands around something, I can't
>understand it. I had a helluva time with atomic physics ;-)
>
> ...Jim Thompson

Me too. I think that brains are fundamentally analog computers. I mean, when you shoot a rifle or hit a baseball, all sorts of complex adjustments have to be made for the situation, and they're not done numerically. I've acquired sort of this "analog" feel for electronics that gets me pretty close almost without thinking, close enough to be suspicious of calculations that aren't right. I can usually hit a component value or whatever to within 10% just standing up, which impresses/annoys the youngsters who, frankly, are so impressed by my instant numerical results that they accept them without checking... good thing! This analog instinct is a good complement to the math. It saves a lot of time, too, when you just know something will/can't work before you go to the trouble to prove it.

It must be amazing to be a Fermi or a Feynman who have this sort of intuition, but at astronomically higher levels. Fermi would glance at complex differential equations and just scribble the solutions on a blackboard, and his co-workers would spend days confirming his results.

John

1385. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-02 05:07:57 UTC
From: John Woodgate <jmw@jmwa.demon.contraspam.yuk>
Message-ID: <9et6hsAtwcDBFwhK@jmwa.demon.co.uk>
Source record: 24417
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

I read in sci.electronics.design that Cecil Moore <w5dxp@hotmail.com>
wrote (in <410d7e1e_6@corp.newsgroups.com>) about 'S - Y Parameter
conversion with Smith Chart', on Sun, 1 Aug 2004:
>Jerry Martes wrote:
>> I think you are wrong about Smith Charts being limited to use at low
>> frequencies.
>
>Probably what Reg is talking about is that the 1.0 normalized value
>in the center of the Smith Chart lies on the purely resistive horizontal
>line. Thus Z0 = 1.0 + j0 (normalized). Reg is probably saying that the
>Z0 = 1.0 + j0 assumption is not valid at low frequencies for the average
>transmission line.

Cigar, I think. The imaginary term isn't zero, and in fact is dominant,
at low frequencies, and this applies for ANY transmission line that
doesn't have its inductance artificially increased, because:

Zo^2 = (R + jwL)/(G + jwC)

and at low frequencies jwL and G are negligible.
--
Regards, John Woodgate, OOO - Own Opinions Only.
The good news is that nothing is compulsory.
The bad news is that everything is prohibited.
http://www.jmwa.demon.co.uk Also see http://www.isce.org.uk

1386. Re: Stability of huff & puff.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-02 07:26:48 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2n6928Ft1ot5U3@uni-berlin.de>
Source record: 24418

You don't use the mechanical cap to change frequency in that way.

What you do is this.....
1. Tune in with the mechanical cap in the normal way.
2. _THEN_ switch on the Huff 'n' Puff stabilizer.
3. The stabilizer will then hold your frequency to the nearest
Hz, 20Hz, or whatever is your step, using a _VARICAP_ across
your main tuning dial.

The essence is that the stabilizer is used to hold a previous frequency
and not to select a new one.

"Richard" <nearlynews_email@ntlworld.com> wrote in message
news:2n595cFssvgjU1@uni-berlin.de...
> "Richard Hosking" <richardh@iinet.net.au> wrote in message
> news:410aed6d$0$16339$5a62ac22@per-qv1-newsreader-01.iinet.net.au...
> > I used a micro to count the freq to 10Hz resolution instead of a shift
> > register. The micro drives the LCD freq display, but also calculates any
> > drift by comparing the current count to the "locked" count. .....

> If I built something myself, the question is, can any variable capacitor
> actually tune in changes of just a few hertz at 2.0 Mhz. Is that possible
> from a mechanical standpoint.

1387. Re: PLEASE READ - Internet site under legal attack by Radioshack corp.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-02 07:49:59 UTC
From: Butch <lynyrd@cableone.net>
Message-ID: <10grshao0kg6sc5@corp.supernews.com>
Source record: 24419
Cross-posted to: alt.radio.wktu,rec.radio.amateur,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy

Well, I find it hard to believe that, in a weak moment, I visited the site mentioned below. It is obvious that a great deal of time and effort has gone into this thing, and to what cause? To save our rights? Me thinks not. What rights are we having trampled? You're right to slander RadioShack? That right is only in your mind. You are most likely a relatively well educated individual with many personal conflicts in his life and I feel deeply for you, but mostly your parents and family members. They most likely put up with your drivvel year after year and detest the site of you.

Why don't we just cut to the chase, and you explain, in a very short sentence or a very, very short paragraph what caused you to create this Radio Shack site that you claim sucks so bad that it has obviously destroyed your life and those of your loved ones? When They haven't harmed you. You are harming them by saying to the world that they suck.

I have enjoyed Radio Shack for many years. I was there when they became RadioShack, and I became a valued customer (I believe that because I still get free catalogs in the mail, not many do anymore 'ya know) to them and grew through the whole gammit of stuff they have added over the years and I must say that when I had a problem with a product, and that was extremely rare, they took care of it. In one case the manager returned my money because it was a last item and he couldn't replace it. A few years later when computers came along if this had happened, they could check all the stores in their system to see who still had it on the shelf and that store would mail it to me at my home. Is that cool? I say "Yea Verily".

I love Radio Shack. This little reply is probably enough to get you to open up KF5DEsucks.com I won't sue you unless you get nasty. All my friends will check in and post there I'm sure they will have comments to make there, they have a lot of freee speech to use 'ya know. I have a friend that can enlist, in moments hundreds of hackers that believe in not only free speech but free hacking tooo!! Free viruses', free wurmzs, 'n free other stuff too.

After that you can open up another site, KF5DEreallysucks.com

Or, you can channel your efforts into something productive and usefull and possibbly profitable for yourself and your suffering family which will no doubt heal many open wounds.

Butch Magee, KF5DE
Diamondhead, MS 39525
wow, just can't believe i'm gonna push that send icon.

DSL wrote:

> For more information and daily updates please visit:
> http://socaltom.blogspot.com/
>
>

1388. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-02 07:51:21 UTC
From: xray <notreally@hotmail.invalid>
Message-ID: <2esrg0lsskqqhvp2cns961e85o6ra1ri9f@4ax.com>
Source record: 24420
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

On Sun, 01 Aug 2004 17:48:01 -0700, Jim Thompson
<thegreatone@example.com> wrote:

>On Sun, 01 Aug 2004 17:32:25 -0700, John Larkin
><jjlarkin@highlandSNIPtechTHISnologyPLEASE.com> wrote:
>
>[snip]
>>Smith charts can be used to solve purely lumped-element problems, too.
>>
>>I wonder if Smith charts have ever been used for analyzing 50/60 Hz
>>power grids. Their losses are fairly low.
>>
>>John
>
>I wouldn't be surprised... I've been told that they locate power line
>faults using a reflectometer.

With power on or off? If they can do it with the power on, they might
just have a chance of getting BPL to work.

Naah! Why did I say that? May BPL die an early and well deserved death.

1389. Re: Home Brew Bug key?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-02 08:15:34 UTC
From: PaoloC <ollollo@hotpop.com>
Message-ID: <2n6bgvFt1337U1@uni-berlin.de>
Source record: 24421
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

Airy R. Bean wrote:

> Can anyone direct me to a published design (URL?) for
> manufacturing your own mechanical bug key?

Don't know about your skills with building mechanical stuff. Many designs need to be able to work with brass & C.

This project is easily produced with paper clips http://home.online.no/~verner/Clippers.pdf and works well if you're not sending too fast.

Searching for "homebrew paddles" on Mr Google returns many links, and some of them have a detailed description of building a more sophisticate paddle set.

73,
Paolo

1390. Re: Home Brew Bug key?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-02 10:22:36 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2n6j6pFt60a5U2@uni-berlin.de>
Source record: 24422
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

Thanks, but I'm after mechanical bug keys - I'd already made a
set of el-bug paddles using strips of perspex, as per the ARRL
"Hints and Kinks" book.

"PaoloC" <ollollo@hotpop.com> wrote in message
news:2n6bgvFt1337U1@uni-berlin.de...
> Airy R. Bean wrote:
> > Can anyone direct me to a published design (URL?) for
> > manufacturing your own mechanical bug key?
> Don't know about your skills with building mechanical stuff. Many
> designs need to be able to work with brass & C.
> This project is easily produced with paper clips
> http://home.online.no/~verner/Clippers.pdf and works well if you're not
> sending too fast.

1391. Making Bug keys, et al.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-02 12:23:15 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2n6q7vFt841pU1@uni-berlin.de>
Source record: 24423
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

In reading around, I came across this little animation of a bug key - click on one of the red buttons to see action!!!

http://www.ae4rv.com/tn/education/bug.htm

1392. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-02 12:40:57 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <410e378c_5@corp.newsgroups.com>
Source record: 24424
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

xray wrote:

> On Sun, 01 Aug 2004 17:48:01 -0700, Jim Thompson
> <thegreatone@example.com> wrote:
>>I wouldn't be surprised... I've been told that they locate power line
>>faults using a reflectometer.
>
> With power on or off? If they can do it with the power on, ...

A solid power line fault usually causes removal of power
from the section of line exhibiting the fault. However,
automatic reclosure will often clear the fault.
--
73, Cecil http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

1393. Re: Part 15 info need for broadcasting

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-02 13:48:59 UTC
From: DJboutit <Recordking@Hotmail.com>
Message-ID: <fDrPc.743$z03.82@newssvr22.news.prodigy.com>
Source record: 24425

I am thinking about going either lowfer 1750 meters 49mhz Hifer 13.55 MHz what do you guys think about that. If you had to pick out of those which one would you chose need more info on the one you chose . Thanks for all the help guys.

1394. Re: Receive NDB beacons ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-02 14:24:23 UTC
From: mikea@mikea.ath.cx
Message-ID: <celiqnfjb2@puck.litech.org>
Source record: 24426
Cross-posted to: alt.radio.scanner,rec.radio.amateur.homebrew,rec.radio.scanner,sci.electronics.design

In <UrqdnYPmCq-C4pHcRVn-jQ@giganews.com> (rec.radio.amateur.homebrew), Solomon Fernblatt wrote:
> Tam/WB2TT wrote:

> > I took a listen on the Icom 756. Heard about 4 NDBs very weak, and a bunch
> > of stations that sounded like RTTY.

> The LF data signals are DGPS (Differential GPS) signals. Google dgps,
> lots of civil engineering/survey folks use it. In conjuction with a
> regular gps receiver it makes for incredibly accurate measurements.

And in conjunction with survey-grade GPS receivers, using CORS[1] data for post-processing, it makes for measurements that tend to have position accuracies within 2 cm.

CORS is worth a Google search all on its own, even if you don't have a survey-grade GPS receiver, just to see what can be done with one.

[1] Continuously-Operating Reference Station: survey-grade GPS station at a _very_ precisely surveyed location, collecting DGPS-corrected apparent-position data, which is periodically transmitted to the USGS for publication on their CORS website. My employer operates a CORS station, and I helped set up the data-transfer stuff.

--
Mike Andrews
mikea@mikea.ath.cx
Tired old sysadmin

1395. Re: Stability of huff & puff.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-02 15:55:13 UTC
From: Richard <nearlynews_email@ntlworld.com>
Message-ID: <2n76d5Fsj273U1@uni-berlin.de>
Source record: 24427

"Airy R. Bean" <me@privacy.net> wrote in message
news:2n6928Ft1ot5U3@uni-berlin.de...
> You don't use the mechanical cap to change frequency in that way.
>
> What you do is this.....
> 1. Tune in with the mechanical cap in the normal way.
> 2. _THEN_ switch on the Huff 'n' Puff stabilizer.
> 3. The stabilizer will then hold your frequency to the nearest
> Hz, 20Hz, or whatever is your step, using a _VARICAP_ across
> your main tuning dial.
>
> The essence is that the stabilizer is used to hold a previous frequency
> and not to select a new one.
>

What I was meaning is that a regular variable capacitor is a mechanical thingy, and if you were to hook up a frequency counter and varied a capacitor, could you in fact tune in 1 or 2 hz steps. For instance if you had any "play" between the spindle and the bearing, it might be impossible to acheive tuning at 1 hz intervals, the tuning might turn out coarser than that, because of the mechanical limitations if the capacitor. I get the feeling though that a good low value capacitor across the main tuning capacitor could allow smooth tuning at least say in steps no higher than 3hz and possibly as low as 1hz at 2.0 Mhz.

It would be no use designing a stabilizer circuit that is capable of tuning in say 3 hz steps, if the tuning capacitor could only manage a minimum of 10 hz.

1396. Re: Stability of huff & puff.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-02 16:24:54 UTC
From: Richard <nearlynews_email@ntlworld.com>
Message-ID: <2n784fFrq062U1@uni-berlin.de>
Source record: 24428

"Richard" <nearlynews_email@ntlworld.com> wrote in message
news:2n76d5Fsj273U1@uni-berlin.de...

> It would be no use designing a stabilizer circuit that is capable of
tuning
> in say 3 hz steps, if the tuning capacitor could only manage a minimum of
10
> hz.

A variable capacitor is not a digital component, so in theory even if the frequency tended to jump in appx 10hz steps, due to mechanical limitations, you can always get to within 1 hz just by fiddling with the tuning. But in this hypothetical case you could not tune smoothly in 1 hz steps. I was hoping to tune so I could put an interffereing signal just outside the passband 20 Hz wide. That would take a very small jump in frequency as one tuned the receiver. Thus the need for a stabilizer to lock on no greater than say 3 or 4 hz. Using as fine tune control a good quality low-value variable capacitor in parallel with the main tuning capacitor.

1397. Re: Stability of huff & puff.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-02 16:36:11 UTC
From: Richard <nearlynews_email@ntlworld.com>
Message-ID: <2n78qeFtu4oqU1@uni-berlin.de>
Source record: 24429

"Airy R. Bean" <me@privacy.net> wrote in message
news:2n6928Ft1ot5U3@uni-berlin.de...
> You don't use the mechanical cap to change frequency in that way.
>
> What you do is this.....
> 1. Tune in with the mechanical cap in the normal way.
> 2. _THEN_ switch on the Huff 'n' Puff stabilizer.
> 3. The stabilizer will then hold your frequency to the nearest
> Hz, 20Hz, or whatever is your step, using a _VARICAP_ across
> your main tuning dial.
>
> The essence is that the stabilizer is used to hold a previous frequency
> and not to select a new one.

Yes, penny just dropped!! Why would I need a stabilizer to lock on at say 3Hz steps when tuning, when all I need is to ensure that I can tune in 3 hz steps. Then when I'm at the frequency of choice, switch on the stabilizer. What we are saying I think, is that I ought to be able to construct an oscillator/VFO working at 2.0 Mhz that allows me (with a good quality small-value bandspread capacitor) to tune smoothly in steps no greater than 2 or 3 hz, and when I'm at the desired frequency switch on the stabilzer that will hold it to within say 1 hertz over a good period of time.

It seems that I was going down the wrong path seeking a stabilizer with lock points every 3 or so hz.

1398. Re: Stability of huff & puff.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-02 17:08:01 UTC
From: Richard <nearlynews_email@ntlworld.com>
Message-ID: <2n7albFtfttpU1@uni-berlin.de>
Source record: 24430

"Richard" <nearlynews_email@ntlworld.com> wrote in message
news:2n78qeFtu4oqU1@uni-berlin.de...
>
> "Airy R. Bean" <me@privacy.net> wrote in message
> news:2n6928Ft1ot5U3@uni-berlin.de...
> > You don't use the mechanical cap to change frequency in that way.
> >
> > What you do is this.....
> > 1. Tune in with the mechanical cap in the normal way.
> > 2. _THEN_ switch on the Huff 'n' Puff stabilizer.
> > 3. The stabilizer will then hold your frequency to the nearest
> > Hz, 20Hz, or whatever is your step, using a _VARICAP_ across
> > your main tuning dial.
> >
> > The essence is that the stabilizer is used to hold a previous frequency
> > and not to select a new one.
>
> Yes, penny just dropped!! Why would I need a stabilizer to lock on at say
> 3Hz steps when tuning, when all I need is to ensure that I can tune in 3
hz
> steps. Then when I'm at the frequency of choice, switch on the
stabilizer.
> What we are saying I think, is that I ought to be able to construct an
> oscillator/VFO working at 2.0 Mhz that allows me (with a good quality
> small-value bandspread capacitor) to tune smoothly in steps no greater
than
> 2 or 3 hz, and when I'm at the desired frequency switch on the stabilzer
> that will hold it to within say 1 hertz over a good period of time.
>
> It seems that I was going down the wrong path seeking a stabilizer with
lock
> points every 3 or so hz.

Oh drat, I thought I had some kind of enlightenment, but I didn't did I.

I think I saw a difference between tuning with the stabilizer in circuit and
tuning with it out of circuit.

Tuning without stablizer in circuit: If I can tune in 1 hz steps with a
good quality variable capacitor, fine. But what happens when I switch a
stablizer on, will the frequency remain the same? Probably not, it will
jump a few hertz away depending on the locking point frequency. This means
you would have to have a stabilizer that locks on to within 3 hz say of your
desired frequency if you wanted really accurate frequency control (say 3 hz
is accurate). Could you get the dead on frequency by adjusting the variable

capacitor with stabilizer out of circuit, then putting it back in circuit. Not possible if the lock frequencies are fixed values. In fact this is the point. If the locking frequencies are fixed values, then in the worst case you can only get close to the desired frequency if these lock frequencies are
say 3 hz apart.

Tuning with stabilizer in circuit: What the diff. if the lock frequencis are at fixed points. Whether stabilizer is in circuit or out, if the frequency the oscillator settles to is at fixed points of say 3 hz there is no advantage or disadvantage.

True? BTW, I'm not vey familiar with stablizer circuits. I'm presuming that what a stabilzer does is enable very good frequency stability, but the downside is it restricts you to a set of frequencies, seperated by 20 hz say or less depending on the design.

1399. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-02 17:24:34 UTC
From: John Larkin <jjlarkin@highSNIPlandTHIStechPLEASEnology.com>
Message-ID: <chtsg09k89tm4daotrd79jme6fp4v6liqg@4ax.com>
Source record: 24431
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

On Sat, 31 Jul 2004 12:03:31 +0100, John Woodgate
<jmw@jmwa.demon.contraspam.yuk> wrote:

>I read in sci.electronics.design that John Larkin <jjlarkin@highSNIPland
>THIStechPLEASEnology.com> wrote (in <hhklg0d1e3fecafd6umjb9sq7g7retbqu7@
>4ax.com>) about 'S - Y Parameter conversion with Smith Chart', on Fri,
>30 Jul 2004:
>>A universal
>>conversion program would be nice, espacially if it included equivalent
>>reactance, capacitance, inductance, stuff like that.
>
>It might be nice, but it's dumbing down the subject, and anyone using s-
>parameters for real had better *understand* what he/she is doing,
>otherwise any success would be a pure fluke.

I work mostly in time domain, so I need to convert s-params into
lumped device models, and it would be nice to have some software
(affordable software!) that does that. That's not really "dumbing
down" to me... it's the s-params that are dumb simplifications!

One trick I use is to visually estimate fet input and output
capacitances to see if a device is worth closer inspection. Just run
eyeballs down the S11 angle column and estimate the frequency (in Ghz)
where the angle hits 40 degrees. The reciprocal is Cin in pF. Ditto
S22 for output capacitance.

John

1400. Re: Stability of huff & puff.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-02 17:26:52 UTC
From: "Harold E. Johnson" <W4ZCB@mchsi.com>
Message-ID: <wPuPc.235798$XM6.57309@attbi_s53>
Source record: 24432

> > Yes, penny just dropped!! Why would I need a stabilizer to lock on at
say
> > 3Hz steps when tuning, when all I need is to ensure that I can tune in 3
> hz
> > steps. Then when I'm at the frequency of choice, switch on the
> stabilizer.
> > What we are saying I think, is that I ought to be able to construct an
> > oscillator/VFO working at 2.0 Mhz that allows me (with a good quality
> > small-value bandspread capacitor) to tune smoothly in steps no greater
> than
> > 2 or 3 hz, and when I'm at the desired frequency switch on the stabilzer
> > that will hold it to within say 1 hertz over a good period of time.

You don't turn these things on and off. The Huff n Puff is in operation at all times. It's just that when you tune in larger, faster steps, you are overriding the slow "corrector" voltage that is trying to bring the VFO to a frequency "step" that it can lock to. When you stop tuning, the VFO is pulled one way or the other by a small amount over a several second period to bring it to a lock with the nearest lockable frequency.

W4ZCB

1401. Re: Stability of huff & puff.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-02 17:42:08 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2n7d4gFtbbprU1@uni-berlin.de>
Source record: 24433

Not at all, the stabilizer in that case will hold the
frequency to the nearest harmonic of 3Hz.

"Richard" <nearlynews_email@ntlworld.com> wrote in message
news:2n76d5Fsj273U1@uni-berlin.de...
> It would be no use designing a stabilizer circuit that is capable of
tuning
> in say 3 hz steps, if the tuning capacitor could only manage a minimum of
10
> hz.

1402. Re: Stability of huff & puff.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-02 17:45:41 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2n7d4gFtbbprU2@uni-berlin.de>
Source record: 24434

It is preferable to turn it off when tuning, else you may find
that the Varicap voltage has been pulled to one of its extremes
causing instability if the circuit determines that it is necessary to
pull further in the direction in which the limit has been reached.

"Harold E. Johnson" <W4ZCB@mchsi.com> wrote in message
news:wPuPc.235798$XM6.57309@attbi_s53...
> You don't turn these things on and off. The Huff n Puff is in operation at
> all times. It's just that when you tune in larger, faster steps, you are
> overriding the slow "corrector" voltage that is trying to bring the VFO to
a
> frequency "step" that it can lock to. When you stop tuning, the VFO is
> pulled one way or the other by a small amount over a several second period
> to bring it to a lock with the nearest lockable frequency.

1403. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-02 17:58:46 UTC
From: Jim Thompson <thegreatone@example.com>
Message-ID: <560tg01lb31vuq865aljdjomqfjhff1e19@4ax.com>
Source record: 24435
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

On Mon, 02 Aug 2004 10:24:34 -0700, John Larkin
<jjlarkin@highSNIPlandTHIStechPLEASEnology.com> wrote:

>On Sat, 31 Jul 2004 12:03:31 +0100, John Woodgate
><jmw@jmwa.demon.contraspam.yuk> wrote:
>
>>I read in sci.electronics.design that John Larkin <jjlarkin@highSNIPland
>>THIStechPLEASEnology.com> wrote (in <hhklg0d1e3fecafd6umjb9sq7g7retbqu7@
>>4ax.com>) about 'S - Y Parameter conversion with Smith Chart', on Fri,
>>30 Jul 2004:
>>>A universal
>>>conversion program would be nice, espacially if it included equivalent
>>>reactance, capacitance, inductance, stuff like that.
>>
>>It might be nice, but it's dumbing down the subject, and anyone using s-
>>parameters for real had better *understand* what he/she is doing,
>>otherwise any success would be a pure fluke.
>
>I work mostly in time domain, so I need to convert s-params into
>lumped device models, and it would be nice to have some software
>(affordable software!) that does that. That's not really "dumbing
>down" to me... it's the s-params that are dumb simplifications!
>
>One trick I use is to visually estimate fet input and output
>capacitances to see if a device is worth closer inspection. Just run
>eyeballs down the S11 angle column and estimate the frequency (in Ghz)
>where the angle hits 40 degrees. The reciprocal is Cin in pF. Ditto
>S22 for output capacitance.
>
>John
>

40 degrees ???

...Jim Thompson
--
James E.Thompson, P.E.	mens
Analog Innovations, Inc.	et
Analog/Mixed-Signal ASIC's and Discrete Systems	manus
Phoenix, Arizona Voice:(480)460-2350	
E-mail Address at Website Fax:(480)460-2142	Brass Rat
http://www.analog-innovations.com	1962

I love to cook with wine. Sometimes I even put it in the food.

1404. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-02 19:28:35 UTC
From: John Woodgate <jmw@jmwa.demon.contraspam.yuk>
Message-ID: <2Ke4UcGjXpDBFwQ+@jmwa.demon.co.uk>
Source record: 24436
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

I read in sci.electronics.design that Jim Thompson
<thegreatone@example.com> wrote (in <560tg01lb31vuq865aljdjomqfjhff1e19@
4ax.com>) about 'S - Y Parameter conversion with Smith Chart', on Mon, 2
Aug 2004:

>40 degrees ???

It's obviously a mathematical ruse, depending on cos(40) or tan(40) or
something like that (like tan(17.4) = 0.1*pi, nearly). I tried to
reverse-mathematic it, but my brane 'urts. (;-)
--
Regards, John Woodgate, OOO - Own Opinions Only.
The good news is that nothing is compulsory.
The bad news is that everything is prohibited.
http://www.jmwa.demon.co.uk Also see http://www.isce.org.uk

1405. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-02 20:24:43 UTC
From: John Larkin <jjlarkin@highSNIPlandTHIStechPLEASEnology.com>
Message-ID: <in8tg092ei8n5qg4fi3i600iaviq6mtlu8@4ax.com>
Source record: 24437
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

On Mon, 02 Aug 2004 10:58:46 -0700, Jim Thompson
<thegreatone@example.com> wrote:

>On Mon, 02 Aug 2004 10:24:34 -0700, John Larkin
><jjlarkin@highSNIPlandTHIStechPLEASEnology.com> wrote:
>
>>On Sat, 31 Jul 2004 12:03:31 +0100, John Woodgate
>><jmw@jmwa.demon.contraspam.yuk> wrote:
>>
>>>I read in sci.electronics.design that John Larkin <jjlarkin@highSNIPland
>>>THIStechPLEASEnology.com> wrote (in <hhklg0d1e3fecafd6umjb9sq7g7retbqu7@
>>>4ax.com>) about 'S - Y Parameter conversion with Smith Chart', on Fri,
>>>30 Jul 2004:
>>>>A universal
>>>>conversion program would be nice, espacially if it included equivalent
>>>>reactance, capacitance, inductance, stuff like that.
>>>
>>>It might be nice, but it's dumbing down the subject, and anyone using s-
>>>parameters for real had better *understand* what he/she is doing,
>>>otherwise any success would be a pure fluke.
>>
>>I work mostly in time domain, so I need to convert s-params into
>>lumped device models, and it would be nice to have some software
>>(affordable software!) that does that. That's not really "dumbing
>>down" to me... it's the s-params that are dumb simplifications!
>>
>>One trick I use is to visually estimate fet input and output
>>capacitances to see if a device is worth closer inspection. Just run
>>eyeballs down the S11 angle column and estimate the frequency (in Ghz)
>>where the angle hits 40 degrees. The reciprocal is Cin in pF. Ditto
>>S22 for output capacitance.
>>
>>John
>>
>
>40 degrees ???
>
> ...Jim Thompson

-38.5, if you want to get pickey.

John

1406. UR67

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-02 20:49:55 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2n7ns8Fth49oU1@uni-berlin.de>
Source record: 24438

Needing a rope handle for a utility toolbox,
a short length of UR67 was pressed into service
and nailed (3 nails each side) into the sides
of the wooden box.

Works a treat!

1407. Re: Stability of huff & puff.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-02 21:09:02 UTC
From: "Harold E. Johnson" <W4ZCB@mchsi.com>
Message-ID: <O3yPc.218333$JR4.16432@attbi_s54>
Source record: 24439

> It is preferable to turn it off when tuning, else you may find
> that the Varicap voltage has been pulled to one of its extremes
> causing instability if the circuit determines that it is necessary to
> pull further in the direction in which the limit has been reached.
>
I've got 3 of them in operation, 2 since 1996 and Pete Lawtons since 1998.
None of them have an on-off switch and I have never seen one go to a rail
and lock up. (That is, AFTER clearing a solder "jumper" off Pete's board.)
In practice, the integrator voltage wanders in one direction and then the
other at pretty close to a statistical average rate.

W4ZCB

1408. Re: Stability of huff & puff.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-03 01:48:10 UTC
From: Jim Pennell <Nospam@killspam.com>
Message-ID: <u9CPc.7103$9Y6.4995@newsread1.news.pas.earthlink.net>
Source record: 24440

For a 1 Hz step size and a 20 Hz IF bandwidth, I would recommend a DDS approach.

You need a precise LO tuning resolution and, I would think, the ability to tune BACK to that same frequency in the future.

==========

For recieve purposes, the low level DDS Spurs will not be a problem since they are something like 60-70 dB down to begin with and given your narrow IF it is not likely for a high level interfering signal to mix with a DDS spur anyway.....

Besides, you could run the DDS from 20 to 25 MHz, divide by 10, and reduce the spurs by 20 dB in the division process.

Jim Pennell
N6BIU

1409. Re: Stability of huff & puff.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-03 03:43:00 UTC
From: Richard <nearlynews_email@ntlworld.com>
Message-ID: <2n8fsaFtde5cU1@uni-berlin.de>
Source record: 24441

"Jim Pennell" <Nospam@killspam.com> wrote in message
news:u9CPc.7103$9Y6.4995@newsread1.news.pas.earthlink.net...
> For a 1 Hz step size and a 20 Hz IF bandwidth, I would recommend a DDS
> approach.
>
> You need a precise LO tuning resolution and, I would think, the ability
to
> tune BACK to that same frequency in the future.
>
> ===========
>
> For recieve purposes, the low level DDS Spurs will not be a problem
since
> they are something like 60-70 dB down to begin with and given your narrow
IF
> it is not likely for a high level interfering signal to mix with a DDS
spur
> anyway.....
>
> Besides, you could run the DDS from 20 to 25 MHz, divide by 10, and
reduce
> the spurs by 20 dB in the division process.
>
>
> Jim Pennell
> N6BIU

You are probably right. Perhaps I am over concerned about spurs and not
considering the obvious solution.

1410. rich cw for qrpp on hf

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-03 04:08:52 UTC
From: eternalsquire@comcast.net
Message-ID: <904dab11.0408022008.25a952e4@posting.google.com>
Source record: 24442

Hi,

This are some questions to those of you who are experts on modulation and information theory, and the related FCC regs for HF. I've done preliminary reading on CCW, PSK, and FSK, and so my knowledge about the subject is only fair to middling, but I think I might be onto something.

What I am interested in doing is creating a CW signal on HF can be keyed or copied by the human operator without computers, but that also contains enough extra information that simple hardware or even computers can pull discern it from noise.

The concept goes something like this:

On the transmit side, I start with a pure carrier. Then I vary it sinusoidally from +10 to -10 hertz of center, at a rate of 100 hertz. The carrier and the modulation are phase-locked to WWV.

That gives the ordinary listener a buzzsaw sound which is slightly larger in spectrum than ordinary CW but much smaller in spectrum than voice.

I then key the buzzsaw on and off like ordinary cw, as like 5 WPM. Sounds terrible, but at least it is CW.

On the receive side, I'll use a frequency discriminator to detect the variation in frequency of the carrier, to yield a 100 hertz tone. I could then borrow a technique from CCW and use the WWV time standard to phase lock with the incoming tone and thereby increase signal to noise ratio.

This gives me the two forms of redundancy with which to enrich the CW to stretch the range further.

Questions are: 1) is this feasable? and 2) could this method fall into the category on allowable modulation methods for HF, with or without some tweaking?
And 3) if it is feasable, is there anything more I can do to increase the redundancy for better receivability as a weak signal.

Many thanks,

The Eternal Squire

1411. Re: rich cw for qrpp on hf

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-03 05:34:48 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10gu8vel8dkfo69@corp.supernews.com>
Source record: 24443

The Eternal Squire wrote:
> Hi,
>
> This are some questions to those of you who are experts on modulation
> and information theory, and the related FCC regs for HF. I've done
> preliminary reading on CCW, PSK, and FSK, and so my knowledge about
> the subject is only fair to middling, but I think I might be onto
> something.
>
> What I am interested in doing is creating a CW signal on HF can be
> keyed or copied by the human operator without computers, but that also
> contains enough extra information that simple hardware or even
> computers can pull discern it from noise.
>
> The concept goes something like this:
>
> On the transmit side, I start with a pure carrier. Then I vary it
> sinusoidally from +10 to -10 hertz of center, at a rate of 100 hertz.
> The carrier and the modulation are phase-locked to WWV.
>
> That gives the ordinary listener a buzzsaw sound which is slightly
> larger in spectrum than ordinary CW but much smaller in spectrum than
> voice.
>
> I then key the buzzsaw on and off like ordinary cw, as like 5 WPM.
> Sounds terrible, but at least it is CW.
>
> On the receive side, I'll use a frequency discriminator to detect the
> variation in frequency of the carrier, to yield a 100 hertz tone. I
> could then borrow a technique from CCW and use the WWV time standard
> to phase lock with the incoming tone and thereby increase signal to
> noise ratio.
>
> This gives me the two forms of redundancy with which to enrich the CW
> to stretch the range further.
>
> Questions are: 1) is this feasable? and 2) could this method fall
> into the category on allowable modulation methods for HF, with or
> without some tweaking?
> And 3) if it is feasable, is there anything more I can do to increase
> the redundancy for better receivability as a weak signal.
>
> Many thanks,
>

> The Eternal Squire

On-off keying of an audible tone on an FM carrier wouldn't be allowed on the HF bands.

This is OK, because you aren't going to see any advantages over plain-old CW, or coherent CW if you do all your synchronization.

By the way, is CCW still an active mode? I've thought for years that with the right DSP code you wouldn't need to lock onto WWV -- you should be able to phase lock to the carrier and "bit clock" of a CW signal digitally. In fact this is what some of the superior morse code readers seem to do.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

1412. Re: Stability of huff & puff.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-03 05:36:36 UTC
From: Jim Pennell <Nospam@killspam.com>
Message-ID: <EvFPc.6969$cK.1810@newsread2.news.pas.earthlink.net>
Source record: 24444

DDS spurs can be a concern, depending on the application, and there are ways to deal with them.

For use as an Rx LO from 2.0 to 2.5 MHz, running at 20 to 25 MHz and then divide by 10 should be good enough. You will want to lowpass the output of the DDS after the divider, and with some input filtering to the mixer from the antenna, I would be surprised if there were any noticable DDS spur effects.

Personally, I am rather fond of RF attenuators that can be switched in between the antenna and the radio, they can "fix" a lot of things.

Including strong signals that could possibly interact with the mixer. I lean towards mechanical swiches, or relays. PIN diodes in a wideband input section of a radio can create other problems....

Jim Pennell
N6BIU

1413. Re: rich cw for qrpp on hf

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-03 06:21:11 UTC
From: The Eternal Squire <eternalsquire@comcast.net>
Message-ID: <v5CdnVPXaMJQs5LcRVn-qA@comcast.com>
Source record: 24445

It seems to me that if the FCC allows Hellschreiber, it would also allow this. In making an improved CW, there would be very little difference, bandwidthwise, between OOK of an FM carrier and OOK of a pure grey 1200 baud narrow band FSK sequence. The latter is definitely legal, even if it would seem silly.

Tim Wescott wrote:
> The Eternal Squire wrote:
>
>> Hi,
>>
>> This are some questions to those of you who are experts on modulation
>> and information theory, and the related FCC regs for HF. I've done
>> preliminary reading on CCW, PSK, and FSK, and so my knowledge about
>> the subject is only fair to middling, but I think I might be onto
>> something.
>>
>> What I am interested in doing is creating a CW signal on HF can be
>> keyed or copied by the human operator without computers, but that also
>> contains enough extra information that simple hardware or even
>> computers can pull discern it from noise.
>>
>> The concept goes something like this:
>>
>> On the transmit side, I start with a pure carrier. Then I vary it
>> sinusoidally from +10 to -10 hertz of center, at a rate of 100 hertz.
>> The carrier and the modulation are phase-locked to WWV.
>>
>> That gives the ordinary listener a buzzsaw sound which is slightly
>> larger in spectrum than ordinary CW but much smaller in spectrum than
>> voice.
>>
>> I then key the buzzsaw on and off like ordinary cw, as like 5 WPM.
>> Sounds terrible, but at least it is CW.
>>
>> On the receive side, I'll use a frequency discriminator to detect the
>> variation in frequency of the carrier, to yield a 100 hertz tone. I
>> could then borrow a technique from CCW and use the WWV time standard
>> to phase lock with the incoming tone and thereby increase signal to
>> noise ratio.
>>
>> This gives me the two forms of redundancy with which to enrich the CW
>> to stretch the range further.
>>

>> Questions are: 1) is this feasable? and 2) could this method fall
>> into the category on allowable modulation methods for HF, with or
>> without some tweaking?
>> And 3) if it is feasable, is there anything more I can do to increase
>> the redundancy for better receivability as a weak signal.
>>
>> Many thanks,
>>
>> The Eternal Squire
>
>
> On-off keying of an audible tone on an FM carrier wouldn't be allowed on
> the HF bands.
>
> This is OK, because you aren't going to see any advantages over
> plain-old CW, or coherent CW if you do all your synchronization.
>
> By the way, is CCW still an active mode? I've thought for years that
> with the right DSP code you wouldn't need to lock onto WWV -- you should
> be able to phase lock to the carrier and "bit clock" of a CW signal
> digitally. In fact this is what some of the superior morse code readers
> seem to do.
>

1414. Re: Aluminium Foil as basis of tuning capacitors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-03 06:39:50 UTC
From: Master of the universe <ay.person@quitewarmpost.com>
Message-ID: <cenbqf$j58$1@newstree.wise.edt.ericsson.se>
Source record: 24297

: > Has anyone experimented with making up large air-spaced
: > capacitors for ATU use ...

Yes!

Screw-thread with knob attached, supported on two 6mm I.D. ball-races. Large brass wheel gives large intertia.

Two nuts on screw-thread push wedge-shaped single-sided copper-clad boards into stationary wedge-shaped single-sided copper-clad boards. Capacitance up to 500pf. Use nylon blocks to mount stationary boards. Has a very nice feel to tuning, just like the old AR88 - quick spin and watch it continue to to other end under it's own momentum.

: > ... out of Aluminium Foil?

Only as experiment. Too floppy! Read this experiment in a book and gave it a try. It worked, but a bit clumsy:

Experiment was two strips of aluminium glued 1/2-way around a plastic pop-bottle. 1/2-fill bottle with water. Lay it on it's side and rotate. Works well - BUT - water sloshes around - difficult to tune. Read that you can 1/2-fill with water and the rest oil to damp the oscillations. I chucked mine in the bin.

1415. would like help designing a better CW

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-03 06:40:51 UTC
From: The Eternal Squire <eternalsquire@comcast.net>
Message-ID: <DOqdnZSGy8T0rpLcRVn-gA@comcast.com>
Source record: 24446
Cross-posted to: rec.radio.amateur.homebrew,jalocha@chopin.ifj.edu.pl,sp9vrc@gw.sp9kby.ampr.org

Pawel,

Hi,

This are some questions to those of you who are experts on modulation and information theory, and the related FCC regs for HF. I've done preliminary reading on CCW, PSK, and FSK, and so my knowledge about the subject is only fair to middling, but I think I might be onto something.

What I am interested in doing is creating a CW signal on HF can be keyed or copied by the human operator without computers, but that also contains enough extra information that simple hardware or even computers can pull discern it from noise.

My motivation for this is that not everyone in the world has access to a computer, but even people in third-world countries can junk a stereo or a tv for the parts.

The concept goes something like this:

On the transmit side, I use two carriers 20 hz apart, and alternate them at 100 hz, basically a pure grey mark space sequence.

That gives the ordinary listener a buzzsaw sound which is slightly larger in spectrum than ordinary CW but much smaller in spectrum than voice.

I then key the buzzsaw on and off like ordinary cw, as like 5 WPM. Sounds terrible, but at least it is CW.

On the receive side, I'll use a frequency discriminator to detect the variation in frequency of the carrier, to yield a 100 hertz tone. I could then borrow a technique from CCW and use the WWV time standard to phase lock with the incoming tone and thereby increase signal to noise ratio.

This gives me the two forms of redundancy with which to enrich the CW to stretch the range further. The benefit would be to recognize the signal from the pattern of the switched carriers.

Questions are: 1) is this feasable? and 2) could this method fall into the category of digital modulation methods for HF, with or without some tweaking?
And 3) if it is feasable, is there anything more I can do to increase the redundancy for better receivability as a weak signal.

Many thanks,

Andrew
WA2JAZ

1416. rich cw for qrpp on hf

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-03 06:50:07 UTC
From: eternalsquire@comcast.net
Message-ID: <904dab11.0408022250.4bc3d64d@posting.google.com>
Source record: 24298

>The Eternal Squire wrote:
>
>> Hi,
>>
>> This are some questions to those of you who are experts on
modulation
>> and information theory, and the related FCC regs for HF. I've done
>> preliminary reading on CCW, PSK, and FSK, and so my knowledge about
>> the subject is only fair to middling, but I think I might be onto
>> something.
>>
>> What I am interested in doing is creating a CW signal on HF can be
>> keyed or copied by the human operator without computers, but that
also
>> contains enough extra information that simple hardware or even
>> computers can pull discern it from noise.
>>
>> The concept goes something like this:
>>
>> On the transmit side, I start with a pure carrier. Then I vary it
>> sinusoidally from +10 to -10 hertz of center, at a rate of 100
hertz. The >carrier and the modulation are phase-locked to WWV.
>>
>> That gives the ordinary listener a buzzsaw sound which is slightly
>> larger in spectrum than ordinary CW but much smaller in spectrum
than
>> voice.
>>
>> I then key the buzzsaw on and off like ordinary cw, as like 5 WPM.
Sounds >terrible, but at least it is CW.
>>
>> On the receive side, I'll use a frequency discriminator to detect
the
>> variation in frequency of the carrier, to yield a 100 hertz tone.
I
>> could then borrow a technique from CCW and use the WWV time
standard
>> to phase lock with the incoming tone and thereby increase signal to
>> noise ratio.
>>
>> This gives me the two forms of redundancy with which to enrich the
CW
>> to stretch the range further.
>>

>> Questions are: 1) is this feasable? and 2) could this method fall
>> into the category on allowable modulation methods for HF, with or
>> without some tweaking?
>> And 3) if it is feasable, is there anything more I can do to
increase
>> the redundancy for better receivability as a weak signal.
>>
>> Many thanks,
>>
>> The Eternal Squire

>On-off keying of an audible tone on an FM carrier wouldn't be allowed
on the HF >bands.

>This is OK, because you aren't going to see any advantages over
plain-old CW, >or coherent CW if you do all your synchronization.

>By the way, is CCW still an active mode? I've thought for years that
with the >right DSP code you wouldn't need to lock onto WWV -- you
should be able to >phase lock to the carrier and "bit clock" of a CW
signal digitally. In fact >this is what some of the superior morse
code readers seem to do.>
>
>-
>
>Tim Wescott
>Wescott Design Services
>http://www.wescottdesign.com

The purpose of this is to design a "better CW" which does not require
a computer to receive, only frequency comparators and analog sync
circuitry. Not everyone in the world has access to a computer,
especially in 3rd world countries. However, operators in those same
3rd world countries could certainly get parts by cannibalizing TV's,
VCR's, or boom-boxes.

I see your point, but what about OOK of a grey pattern of alternating
carriers 20 hz apart at a rate of 100 hertz, with synchronized
alternation? This would fall under a degenerate case of Hellscreiber,
which indeed is allowed by the FCC.

The Eternal Squire

1417. YIG-tuned oscillators and the ADF4107

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-03 07:23:06 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <MPG.1b78dd34eb90cdd69896f4@news-central.giganews.com>
Source record: 24299

Just wanted to post a brief update on some ongoing work. A few months ago, a couple of people were speculating on adapting the KE5FX/VK6BRO DDS/PLL synthesizer project (http://www.qsl.net/ke5fx/synth.html) to drive a YIG-tuned oscillator for better spectral purity and wider frequency coverage. The ADF4107 chip seemed like a good starting point, since it's specified for coverage from 1 GHz - 7 GHz. I ordered some samples from Analog Devices at the time, but only just got around to trying them out over the past few days.

The ADF4107 is pin- and software-compatible with the ADF4112 used in the QEX article. However, its upper frequency range is 7 GHz instead of 3 GHz; its RF input is 5 dB less sensitive; and it requires a 2.7-3.3 volt supply (as opposed to 2.7-5.5 volts for the ADF4112). Upon installing the ADF4107 on a DDS/PLL synth board, some rework was necessary to power the PLL chip from the DDS chip's analog 3.3V supply. 6.8K/10K voltage dividers had to be inserted in the 5V PLL control lines; a 68/51-ohm voltage divider was used between the 5V LT1016 comparator and the ADF4107's reference input; and a 2N2222 was used to turn the 3-volt lock-detect signal into a TTL-compatible signal for the parallel port interface.

Modified (i.e., totally hacked-up) DDS/PLL synth board photos:
Thumbnail (50K): http://www.speakeasy.net/~jmiles1/ke5fx/ddsyig1.jpg
Full-size (900K): http://www.speakeasy.net/~jmiles1/ke5fx/ddsyig1a.jpg

I have been using an Avantek AV7028 YTO, specified for 2-8 GHz coverage, for R&D on this project. I remember paying $700 for this thing back in the early 90s, before eBay made YIGs available for 5% of that price! My target output range is between 2 and 6 GHz. Any higher than 6 GHz and the YTO, which doesn't have the correct mounting hardware, gets too hot. I did verify that the 7 GHz limit of the ADF4107 is a hard limit; I couldn't push it much higher than 7.2-7.3 GHz.

The YTO's main tuning coil was biased with a 16-bit serial DAC (MAX541), driven by a PC parallel port separate from the one connected to the DDS/PLL synthesizer. I wrote a quick-and-dirty Win32 console app to pretune the YTO to within roughly +/- 10 MHz of a given output frequency. The observed linearity was excellent -- I thought I'd need a large interpolation table for the DAC, but you can pretty much draw a straight line between the DAC constants for 2.0 and 6.0 GHz and land within a few MHz with a single "lerp" calculation. YIGs are amazing parts.

2-6 GHz, +14 dBm YIG oscillator/driver assembly:
Thumbnail (50K): http://www.speakeasy.net/~jmiles1/ke5fx/ddsyig2.jpg
Full-size (900K): http://www.speakeasy.net/~jmiles1/ke5fx/ddsyig2a.jpg

Phase-locking was achieved by tuning the YTO's FM coil with the output of the loop filter in the DDS/PLL synthesizer. Because YIG oscillators and filters are tuned by current rather than voltage, it was necessary to add an emitter follower after the OPA27 to turn its output voltage into an equivalent current through a power resistor. Overall tuning sensitivity, which is 70 MHz/volt with the ROS-2150VW VCO, was reduced to about 2 MHz/volt when driving the YTO's FM coil through a 150-ohm resistor.

I plugged the 2 MHz/volt KVco figure into the design equations in the article and calculated component values for a 2 kHz-wide filter, leaving everything else alone. I removed the VCO and output MMIC from the synth board and routed a 1" section of hardline directly to the ADF4107's pins from what used to be the output jack. The loop fired right up and seemed to have no problems locking across the entire range.

At about -93 dBc/Hz at 10 kHz from the carrier, the phase noise at 2 GHz was better than the ROS-2150VW's observed performance at 1 GHz.... and there is still a LOT of room for improvement. The 2-kHz loop bandwidth is too wide, given the YTO's superior phase-noise specs compared to the ROS-2150VW. Worse, my power splitter becomes very lossy above 2 GHz, degrading the ADF4107's noise specs by several dB at 4-6 GHz. Anyone got a 2-6 GHz small-signal 2-way splitter they're willing to sell me?

I also have some kind of transient stability problem in the voltage-to-current driver circuitry associated with the DAC, which I will need to resolve before calling the experiment an unqualified success. As things stand, it takes several sweeps to get a clean graph. It was a relief to see that harmonic locking at the lower end of the band wasn't a problem, although again, I can't evaluate this without a flatter power splitter.

Even at this early stage of development, the performance is within spitting distance (6-8 dB or so) of an HP 8672A synthesizer ($40,000 circa 1986). It shouldn't be hard to close the gap once the bugs are worked out and I understand more about what I'm doing.

There is probably another QEX article in here somewhere. Not much has been written about the care and feeding of YIGs, and it's an interesting topic for serious microwave experimenters, now that the parts are affordable and easy to come by on the surplus market. More later, hopefully....

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

1418. Re: Stability of huff & puff.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-03 07:48:09 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2n8uhcFu93tpU4@uni-berlin.de>
Source record: 24300

Practice wins over theory :-(

"Harold E. Johnson" <W4ZCB@mchsi.com> wrote in message
news:O3yPc.218333$JR4.16432@attbi_s54...
> > It is preferable to turn it off when tuning, else you may find
> > that the Varicap voltage has been pulled to one of its extremes
> > causing instability if the circuit determines that it is necessary to
> > pull further in the direction in which the limit has been reached.
> I've got 3 of them in operation, 2 since 1996 and Pete Lawtons since 1998.
> None of them have an on-off switch and I have never seen one go to a rail
> and lock up. (That is, AFTER clearing a solder "jumper" off Pete's board.)
> In practice, the integrator voltage wanders in one direction and then the
> other at pretty close to a statistical average rate.

1419. Re: Stability of huff & puff.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-03 08:13:23 UTC
From: Hans Summers <hans.summers@tudor.com>
Message-ID: <2n8vp4Fubm20U1@uni-berlin.de>
Source record: 24301

Here's another idea for you - you could use the main tuning control for "rough" tuning, then use push button control to move the frequency up or down one lock point. E.g. if you have lock points 10Hz apart, you could arrange for two push buttons, to increase or decrease the frequency by 10Hz. In this case "all" that is required is for this function is that pushing a button delivers a sufficient pulse to the integrator to move the VFO frequency past the half-way point to the next lock point. The stabiliser will then move you the remaining couple of Hz to the next lock point.

I have not tried this and I imagine it would need to be adjusted carefully to cause it to jump only precisely one step. Linearity of the integrator and tuning voltage resp. freq would also need to be reasonably good. But I do feel that it would work well: the applied pulse needs in theory to move the VFO (in my example) by anywhere between 5 and 15Hz, and the stabiliser will act to bring it back to the desired 10Hz move.

That could be quite a nice feature in your case, if you find that you want to move 10Hz (or whatever lock distance you choose), just to move some QRM outside the IF passband.

Huff Puff circuits are a lot of fun: a simple circuit with endless variety and possibility for experimentation. DDS is a little more complex and also poses the risk of spurs, though as others have mentioned their effects can be mitigated.

73 Hans G0UPL
http://www.HansSummers.com

1420. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-03 08:28:14 UTC
From: Active8 <reply2group@ndbbm.net>
Message-ID: <bfpp8yb5k95p.dlg@news.individual.net>
Source record: 24302
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

On Sun, 01 Aug 2004 17:48:01 -0700, Jim Thompson wrote:

> On Sun, 01 Aug 2004 17:32:25 -0700, John Larkin
> <jjlarkin@highlandSNIPtechTHISnologyPLEASE.com> wrote:
>
> [snip]
>>Smith charts can be used to solve purely lumped-element problems, too.
>>
>>I wonder if Smith charts have ever been used for analyzing 50/60 Hz
>>power grids. Their losses are fairly low.
>>
>>John
>
> I wouldn't be surprised... I've been told that they locate power line
> faults using a reflectometer.
>
> ...Jim Thompson

That and thumpers. They also have a way to check a ground rod.
Either TDR, I think. Another neat thing I've heard is put a
mechanical vibrator on a down quy and go down the line listening for
loose hardware.
--
Best Regards,
Mike

1421. My Unbelievable story is translation

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-03 09:28:42 UTC
From: Zoran Dimitrijevic <nacomp@EUnet.yu>
Message-ID: <cenlu9$ev7$13@news.eunet.yu>
Source record: 24304

http://www30.brinkster.com/aferatelekom/Story.zip

--
Unllikly, Realistic
How is quash Royal parentage Obrenovic
and criminal in Serbia
----
http://www30.brinkster.com/aferatelekom
http://solair.eunet.yu/~nacomp
http://solair.eunet.yu/~zorandi

Kako je ugusena Kraljevska Dinastija Obrenovic
i kriminal u Srbiji

Zoran Dimitrijevic

1422. VN88 Fets as linear amp

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-03 09:36:19 UTC
From: Alan Peake <adpeake@killspam.internode.on.net>
Message-ID: <410F5C93.4030708@killspam.internode.on.net>
Source record: 24303

Hi all,
Has anyone had experience with the Siliconix Vmos VN88? I've got a pair running as a 1W linear on 40M and 80M but I've no idea of their potential. They seem to have a much higher input impedance than equivalently powered bipolars but I really don't have much of a feel for this.
Any ideas on maximising ouput would be greatly appreciated,
Alan
VK2TWB

1423. Re: VN88 Fets as linear amp

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-03 09:59:46 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <v8oug0t3m5p8nf9rcfn0rqi76vf3kslg58@4ax.com>
Source record: 24305

On Tue, 03 Aug 2004 19:36:19 +1000, Alan Peake
<adpeake@killspam.internode.on.net> wrote:

>Hi all,
> Has anyone had experience with the Siliconix Vmos VN88? I've got a
>pair running as a 1W linear on 40M and 80M but I've no idea of their
>potential. They seem to have a much higher input impedance than
>equivalently powered bipolars but I really don't have much of a feel for
>this.
>Any ideas on maximising ouput would be greatly appreciated,
>Alan

They are obsolete now, I'm afraid. Not exactly a great choice for this
application. You'd be better off picking a newer, more suitable Mosfet
and starting from scratch if it's more power you're interested in.
BTW, it's a characteristic of all Mosfets to have a *very* high input
impedance as virtually no current flows through the gate, they're very
easy to drive, especially for types with a low gate/source capacitance
figure.
--

"What is now proved was once only imagin'd." - William Blake, 1793.

1424. Re: My Unbelievable story is translation

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-03 10:04:55 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <8poug0lbnolpk0laqojek5f9sfcqev3vtg@4ax.com>
Source record: 24306

On Tue, 3 Aug 2004 11:28:42 +0200, "Zoran Dimitrijevic"
<nacomp@EUnet.yu> wrote:

[snip]

Not so much unbelievable as incomprehensible.
--

"What is now proved was once only imagin'd." - William Blake, 1793.

1425. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-03 10:27:29 UTC
From: YD <yd.techHAT@techie.com>
Message-ID: <q2qug0pd2g33csk8g22tlboga18anhl2r8@4ax.com>
Source record: 24307
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

On Sat, 31 Jul 2004 23:49:27 +0100, Paul Burridge
<pb@notthisbit.osiris1.co.uk> wrote:

>On Sat, 31 Jul 2004 13:42:31 -0400, Activ8 <reply2group@ndbbm.net>
>wrote:
>
>>On Sat, 31 Jul 2004 16:45:53 GMT, W3JDR wrote:
>>
>>> I enjoy reading this group, mostly for short sweet questions with short
>>> sweet answers. I take the time to sort through all of the questions and all
>>> of the responses in a thread because if I can't offer some advice, then
>>> maybe I'll learn something. In this case, I feel my time is wasted by both
>>> of you because there's nothing I can offer to this purely emotional
>>> exchange, >
>>
>>Uh. I gave good info and am trying to drill it home. Paul doesn't
>>like being chided. TFB.
>
>TFB?? That's what you'd like to think, pal. One insult too many. I
>don't have to put up with any more of your abuse and I won't.
>Bye, Mike. It's getting *very* boring.
>
><plonk!>

Surly little prick ain't you? Here you have a barrelful of useful
information but you just have to jump on the replies not to your
liking. Since you griped about them wasting your time I take it you're
a slow reader.

- YD.

--
Remove HAT if replying by mail.

1426. Re: Stability of huff & puff.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-03 10:29:14 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2n982pFudkl1U1@uni-berlin.de>
Source record: 24309

Which reminds me....

In theory, theory and practice are the same.
In practice, theory and practice are different.

"Airy R. Bean" <me@privacy.net> wrote in message
news:2n8uhcFu93tpU4@uni-berlin.de...
> Practice wins over theory :-(
>
> "Harold E. Johnson" <W4ZCB@mchsi.com> wrote in message
> news:O3yPc.218333$JR4.16432@attbi_s54...
> > > It is preferable to turn it off when tuning, else you may find
> > > that the Varicap voltage has been pulled to one of its extremes
> > > causing instability if the circuit determines that it is necessary to
> > > pull further in the direction in which the limit has been reached.
> > I've got 3 of them in operation, 2 since 1996 and Pete Lawtons since
1998.
> > None of them have an on-off switch and I have never seen one go to a
rail
> > and lock up. (That is, AFTER clearing a solder "jumper" off Pete's
board.)
> > In practice, the integrator voltage wanders in one direction and then
the
> > other at pretty close to a statistical average rate.
>
>

1427. Re: Aluminium Foil as basis of tuning capacitors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-03 11:10:54 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2n9auuFuih5hU1@uni-berlin.de>
Source record: 24310

Wedge shaped?

1. For ease of construction - two triangles guillotined
from each rectangle?

2. For ease of fine adjustment?

3. Do you mean isosceles wedge or right-angled triangle?

4. Sounds great!

"Master of the universe" <ay.person@quitewarmpost.com> wrote in message
news:cenbqf$j58$1@newstree.wise.edt.ericsson.se...
> : > Has anyone experimented with making up large air-spaced
> : > capacitors for ATU use ...
> Two nuts on screw-thread push wedge-shaped single-sided copper-clad boards
> into stationary wedge-shaped single-sided copper-clad boards. Capacitance
up
> to 500pf. Use nylon blocks to mount stationary boards. Has a very nice
feel
> to tuning, just like the old AR88 - quick spin and watch it continue to to
> other end under it's own momentum.

1428. Re: Aluminium Foil as basis of tuning capacitors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-03 11:21:41 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2n9auuFuih5hU2@uni-berlin.de>
Source record: 24311

OK - a friend of mine used a similar technique for his
Tesla Coil (5ft sparks!). His original attempts using the
approach recommended in Wireless World of wrapping
alternate layers of polythene and aluminium (aluminum for
the Yanks who neither speak nor spell English!) failed because
when the thing was folded up, there were air voids around the
corners which causing dielectric failure - arcing in the air charred
the polythene and then the polythene failed.

Having now located a local supplier of aluminium sheet, and a
friend who has a guillotine, I'll try the wedge approach recommended
by the other contributor, whose name/callsign escapes me for
the moment.

NEXT QUESTION

"L" configuration ATU's seem to need switching to change the capacitor
(and the coil) from serial to parallel connection. Has anybody played around
with making their own knife switches? Such switches would fit in with my
plan to
control the ATU via nylon rods from the shack. (In order to satisfy The
Station Manager/SWMBO, I propose to install a short length
of picket fence to hide all the rods)

"Mike Coslo" <mcoslo@adelphia.net> wrote in message
news:UYudnQvOiM4avZHcRVn-rg@adelphia.com...
> Airy R. Bean wrote:
> > "Airy R. Bean" <me@privacy.net> wrote in message
> > news:2n1jasFrj8upU1@uni-berlin.de...
> >>Has anyone experimented with making up large air-spaced
> >>capacitors for ATU use out of Aluminium Foil?
> >>Obviously some stiffening frame would be needed for each piece of
> >>foil, and that frame could then serve to enforce separation
> >>between plates.
> >>Also, anyone played around with variable capacitors when the
> >>meshing mechanism is linear rather than rotary? I envisage a
> >>fine feed using, say, 0BA threaded studding.
> >>What I have in mind is an L-Match underneath the proposed
> >>20m Vertical Antenna (q.v.), remote controlled from the shack by
> >>20-foot long Nylon rods, with the turns-counters actually being in the
> >>shack.
> I've never experimented myself, but have seen varicaps made of aluminum
> foil and glass, where the adjustment was made by sliding the foil/glass
> leaves back and forth. Looked like it would work very well.

1429. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-03 11:34:39 UTC
From: "owen.home" <owen.home@ntlworld.com>
Message-ID: <jLKPc.640$UA2.547@newsfe3-gui.ntli.net>
Source record: 24308

Look up the Cabora Bassa line or Martin Wedepohl to see the problems a
quarter wave line at 50Hz can cause!
John

"Jim Thompson" <thegreatone@example.com> wrote in message
news:cn3rg0purfdof9jeuoh2pu3b89k6if4ono@4ax.com...
> On Sun, 01 Aug 2004 17:32:25 -0700, John Larkin
> <jjlarkin@highlandSNIPtechTHISnologyPLEASE.com> wrote:
>
> [snip]
> >Smith charts can be used to solve purely lumped-element problems, too.
> >
> >I wonder if Smith charts have ever been used for analyzing 50/60 Hz
> >power grids. Their losses are fairly low.
> >
> >John
>
> I wouldn't be surprised... I've been told that they locate power line
> faults using a reflectometer.
>
> ...Jim Thompson
> --
> | James E.Thompson, P.E. | mens |
> | Analog Innovations, Inc. | et |
> | Analog/Mixed-Signal ASIC's and Discrete Systems | manus |
> | Phoenix, Arizona Voice:(480)460-2350 | |
> | E-mail Address at Website Fax:(480)460-2142 | Brass Rat |
> | http://www.analog-innovations.com | 1962 |
>
> I love to cook with wine. Sometimes I even put it in the food.
>

Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.713 / Virus Database: 469 - Release Date: 30/06/04

1430. Re: Aluminium Foil as basis of tuning capacitors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-03 12:54:28 UTC
From: Master of the universe <ay.person@quitewarmpost.com>
Message-ID: <ceo1otsre1@newstree.wise.edt.ericsson.se>
Source record: 24312

: Wedge shaped?

Yes, wedge shaped. It makes for smaller adjustments at lower capacitances.

: 1. For ease of construction - two triangles guillotined

: from each rectangle?

That's exactly what I mean.

: 2. For ease of fine adjustment?

Yes.

: 3. Do you mean isosceles wedge or right-angled triangle?

Right-angled.

: 4. Sounds great!

Works great, too. Just do NOT apply sideways pressure to cause the boards to "bind", otherwise the tuning can become a little "jerky".

: "Master of the universe" <ay.person@quitewarmpost.com> wrote in message

: news:cenbqf$j58$1@newstree.wise.edt.ericsson.se...

: > : > Has anyone experimented with making up large air-spaced

: > : > capacitors for ATU use ...

: > Two nuts on screw-thread push wedge-shaped single-sided copper-clad
boards

: > into stationary wedge-shaped single-sided copper-clad boards.
Capacitance

: up

: > to 500pf. Use nylon blocks to mount stationary boards. Has a very nice

: feel

: > to tuning, just like the old AR88 - quick spin and watch it continue to
to

: > other end under it's own momentum.

:

:

1431. Re: VN88 Fets as linear amp

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-03 13:47:58 UTC
From: notme@aol.com
Message-ID: <410f9408.3084214@usenet.magma.ca>
Source record: 24313

On Tue, 03 Aug 2004 19:36:19 +1000, Alan Peake
<adpeake@killspam.internode.on.net> wrote:

Dabbling with FET amps myself. Have a look here for some ideas:

http://www.flashwebhost.com/tcvr/rf_power_amplifier.php

A pair of IRF820s in push pull might yield 120W O/P on the lower
bands, don't know about 20meters and up though, they may have too much
capacitance to work well. Will experiment a bit once winter arrives.

73s VE3ELQ
>Hi all,
> Has anyone had experience with the Siliconix Vmos VN88? I've got a
>pair running as a 1W linear on 40M and 80M but I've no idea of their
>potential. They seem to have a much higher input impedance than
>equivalently powered bipolars but I really don't have much of a feel for
>this.
>Any ideas on maximising ouput would be greatly appreciated,
>Alan
>VK2TWB
>

1432. FA: $9.99 "TONS"(1.5lbs) of PARTS for BUILDERS, QRP, HAM, CB>ALL

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-03 13:51:24 UTC
From: rlucch2098@aol.com
Message-ID: <20040803095124.19468.00002635@mb-m17.aol.com>
Source record: 24314

Many nice clear pics.
All items are real inexpensive.
Ebay item numbers>
5712607904
OR>
This is my entire list on Ebay.
You may want to check others while you're there :-)
Please add HTTP in front of the address below as AOL frowns on HOT links :-(
://cgi6.ebay.com/ws/eBayISAPI.dll?ViewListedItems&userid=myradioroom&sort=
3&page=1&rows=25&since=14&rdir=0
Thanks es 73..........RICH-WA2RQY RLUCCH2098@aol.com
Cheep Manuals for sale @>>
http://www.myradioroom.com/manualsales.html
Web-Page URL>
HTTP://members.aol.com/rlucch2098/index.html

1433. Re: Aluminium Foil as basis of tuning capacitors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-03 14:00:08 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2n9k7uFujblhU2@uni-berlin.de>
Source record: 24315

Don't understand that!

How big is your resultant capacitor when opened to its fullest
extent?

"Master of the universe" <ay.person@quitewarmpost.com> wrote in message
news:ceo1otsre1@newstree.wise.edt.ericsson.se...
> Works great, too. Just do NOT apply sideways pressure to cause the boards
to
> "bind", otherwise the tuning can become a little "jerky".

1434. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-03 14:35:23 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <ceo7vq$e4v$1@newshost.mot.com>
Source record: 24317
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

"Active8" <reply2group@ndbbm.net> wrote in message
news:bfpp8yb5k95p.dlg@news.individual.net...
> On Sun, 01 Aug 2004 17:48:01 -0700, Jim Thompson wrote:
>
> > On Sun, 01 Aug 2004 17:32:25 -0700, John Larkin
> > <jjlarkin@highlandSNIPtechTHISnologyPLEASE.com> wrote:
> >
> > [snip]
> >>Smith charts can be used to solve purely lumped-element problems, too.
> >>
> >>I wonder if Smith charts have ever been used for analyzing 50/60 Hz
> >>power grids. Their losses are fairly low.
> >>
> >>John

Actually they have significant loss. It turns out that a t-line with loss
has a complex characteristic impedance, not just resistive, so they have to
match complex Z0 's

73,
--
Steve N, K,9;d, c. i My email has no u's.

1435. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-03 14:44:23 UTC
From: Jim Thompson <thegreatone@example.com>
Message-ID: <t19vg0dopi3k5mi198gkfubampe0in4vh2@4ax.com>
Source record: 24316
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

On Tue, 03 Aug 2004 07:27:29 -0300, YD <yd.techHAT@techie.com> wrote:

>On Sat, 31 Jul 2004 23:49:27 +0100, Paul Burridge
[snip]
>>TFB?? That's what you'd like to think, pal. One insult too many. I
>>don't have to put up with any more of your abuse and I won't.
>>Bye, Mike. It's getting *very* boring.
>>
>><plonk!>
>
>Surly little prick ain't you? Here you have a barrelful of useful
>information but you just have to jump on the replies not to your
>liking. Since you griped about them wasting your time I take it you're
>a slow reader.
>
>- YD.

"Slow reader"? "Slow learner" is more appropriate. Or maybe brain
dead ;-)

1436. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-03 17:17:42 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <WMPPc.1029$P16.50@nwrddc04.gnilink.net>
Source record: 24318
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

"Jim Thompson" <thegreatone@example.com> wrote in message
news:t19vg0dopi3k5mi198gkfubampe0in4vh2@4ax.com...
> On Tue, 03 Aug 2004 07:27:29 -0300, YD <yd.techHAT@techie.com> wrote:
>
> >On Sat, 31 Jul 2004 23:49:27 +0100, Paul Burridge
> [snip]
> >>TFB?? That's what you'd like to think, pal. One insult too many. I
> >>don't have to put up with any more of your abuse and I won't.
> >>Bye, Mike. It's getting *very* boring.
> >>
> >><plonk!>
> >
> >Surly little prick ain't you? Here you have a barrelful of useful
> >information but you just have to jump on the replies not to your
> >liking. Since you griped about them wasting your time I take it you're
> >a slow reader.
> >
> >- YD.
>
> "Slow reader"? "Slow learner" is more appropriate. Or maybe brain
> dead ;-)

Jim

There is a big benefit to someone as ill informed as myself when these
discussions involve guys who are actually informed and present
understandable info for "jump starting" guys like me.
I probably wouldnt have read the posts if I'd started reading only *one*
side, without some kind of contradiction.

Jerry

1437. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-03 18:32:46 UTC
From: Active8 <reply2group@ndbbm.net>
Message-ID: <hh8sxiilavvh$.dlg@news.individual.net>
Source record: 24319
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

On Tue, 3 Aug 2004 09:35:23 -0500, Steve Nosko wrote:

> "Active8" <reply2group@ndbbm.net> wrote in message
> news:bfpp8yb5k95p.dlg@news.individual.net...
>> On Sun, 01 Aug 2004 17:48:01 -0700, Jim Thompson wrote:
>>
>>> On Sun, 01 Aug 2004 17:32:25 -0700, John Larkin
>>> <jjlarkin@highlandSNIPtechTHISnologyPLEASE.com> wrote:
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>>> [snip]
>>>>Smith charts can be used to solve purely lumped-element problems, too.
>>>>
>>>>I wonder if Smith charts have ever been used for analyzing 50/60 Hz
>>>>power grids. Their losses are fairly low.
>>>>
>>>>John
>
> Actually they have significant loss. It turns out that a t-line with loss
> has a complex characteristic impedance, not just resistive, so they have to
> match complex Z0 's
>
> 73,

Well, that was Jim yer replyin' to, but since you're not Paul
Burridge, that's perfectly fine and I'm glad you did. It reminds me
that back when that big Canusa (not Canusa TM) happened, the poster
that goes by Ralph and Diane IIRC wrote a nice piece about the
dynamics of power systems, line reactance and all that.
--
Best Regards,
Mike

1438. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-03 18:47:07 UTC
From: Active8 <reply2group@ndbbm.net>
Message-ID: <oiv8v4dx9xeu$.dlg@news.individual.net>
Source record: 24320
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

On Tue, 03 Aug 2004 17:17:42 GMT, Jerry Martes wrote:

> "Jim Thompson" <thegreatone@example.com> wrote in message
> news:t19vg0dopi3k5mi198gkfubampe0in4vh2@4ax.com...
>> On Tue, 03 Aug 2004 07:27:29 -0300, YD <yd.techHAT@techie.com> wrote:
>>
>>>On Sat, 31 Jul 2004 23:49:27 +0100, Paul Burridge
>> [snip]
>>>>TFB?? That's what you'd like to think, pal. One insult too many. I
>>>>don't have to put up with any more of your abuse and I won't.
>>>>Bye, Mike. It's getting *very* boring.
>>>>
>>>><plonk!>
>>>
>>>Surly little prick ain't you? Here you have a barrelful of useful
>>>information but you just have to jump on the replies not to your
>>>liking. Since you griped about them wasting your time I take it you're
>>>a slow reader.
>>>
>>>- YD.
>>
>> "Slow reader"? "Slow learner" is more appropriate. Or maybe brain
>> dead ;-)
>
> Jim
>
> There is a big benefit to someone as ill informed as myself when these
> discussions involve guys who are actually informed and present
> understandable info for "jump starting" guys like me.
> I probably wouldnt have read the posts if I'd started reading only *one*
> side, without some kind of contradiction.
>
> Jerry

That's a new twist for me. You saying we should slap each other
around some more? ;)

Just to summarize the part that's IMO most relevant to Burridges
learning disability, Chis Bowick, on pp. 105 - 107 of Secrets of RF
Design shows an example of a Z plotted on the Smith chart and he
labels it with the complex number representing a Z load and it's
reflection coefficient, both of which can be read directly off the
chart. He then give conversion equations that can be used to find a
numerical answer.

What bugged me is that it's so easy to errantly think that a rect to polar conversion on the Z would yield an S param when in fact doing that just gives you a polar representation of Z, i.e. |Z| = sqrt(R^2 + X^2) and Z ang = atan(X/Y)

--
Best Regards,
Mike

1439. Re: Aluminium Foil as basis of tuning capacitors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-03 18:59:33 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10gvo4pkooig513@corp.supernews.com>
Source record: 24321

Airy R. Bean wrote:
> OK - a friend of mine used a similar technique for his
> Tesla Coil (5ft sparks!). His original attempts using the
> approach recommended in Wireless World of wrapping
> alternate layers of polythene and aluminium (aluminum for
> the Yanks who neither speak nor spell English!). . .

We Yanks are even more linguistically declined than you think. In addition to misspelling and mispronouncing aluminium, we also call polythene "polyethylene". Two countries separated by a common language, indeed.

Now, it's time for a snack. But where did I put that spotted dick. . . oh, yeah, there it is in my fanny pack.

Roy Lewallen, W7EL

1440. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-03 19:37:51 UTC
From: averyfineman@aol.com
Message-ID: <20040803153751.12853.00000123@mb-m19.aol.com>
Source record: 24322

In article <ip2rg0p2959kuirp5ahvilttja4pttnbfg@4ax.com>, John Larkin
<jjlarkin@highlandSNIPtechTHISnologyPLEASE.com> writes:

>On Sun, 01 Aug 2004 18:29:49 -0500, Cecil Moore <w5dxp@hotmail.com>
>wrote:
>
>>Jerry Martes wrote:
>>> I think you are wrong about Smith Charts being limited to use at low
>>> frequencies.
>>
>>Probably what Reg is talking about is that the 1.0 normalized value
>>in the center of the Smith Chart lies on the purely resistive horizontal
>>line. Thus Z0 = 1.0 + j0 (normalized). Reg is probably saying that the
>>Z0 = 1.0 + j0 assumption is not valid at low frequencies for the average
>>transmission line.
>
>Smith charts can be used to solve purely lumped-element problems, too.
>
>I wonder if Smith charts have ever been used for analyzing 50/60 Hz
>power grids. Their losses are fairly low.

The origin of the Smith Chart happened when a relatively junior
engineer (Phil Smith) was assigned to study audio frequency
telephone line response at Bell Labs in the 1930s.

The very first "Smith Chart" is dated 22 April 1931 (a rectangular
format) while the first recorded circular format appeared in McGraw-
Hill's Electronics magazine in January 1939. An improved version
with sliding axial scale appeared in Electronics magazine in
January 1944.

There wasn't a lot of microwave work going on in the electronics
industry in the 1930s and 1940s compared to the post-WW2
period. :-)

A Smith Chart is simply a very convenient way of graphically
displaying complex number quantities of impedance and
admittance quantities. Yes, it is possible to do it all pencil-
and-paper with a slide rule and sound very noble and arty about
it but only damn fools take the long road to spend several months
of desk work on a problem that can be solved in a day's time.

THE authoritative source on the Smith Chart is found in "Electronic
Applications of the Smith Chart" by Phillip H. Smith, MTS of the
Bell Telephone Laboratories, Inc., prepared under the sponsorship
and direction of Kay Electric Company, published by McGraw-Hill

1969, Library of Congress Catalog Card Number 69-12411. 222pp.
Includes four overlays suitable for xerography or Ozalid copying.

For most simple tasks, an H-P 32 S II pocket scientific calculator
can do all the complex quantity basic arithmetic in a few keystrokes.
That includes conversion between impedance <-> admittance. Most
handy.

The Smith Chart can be used at ANY frrequency not DC.

Len Anderson
retired (from regular hours) electronic engineer person

1441. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-03 19:52:18 UTC
From: gwhite <gwhite@TaxesInstitutes.com>
Message-ID: <410FECF2.394FC6C1@TaxesInstitutes.com>
Source record: 24323
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

```
Activ8 wrote:
>
> On Sun, 1 Aug 2004 06:38:31 +0100, John Woodgate wrote:
>
> > I read in sci.electronics.design that Activ8 <reply2group@ndbbm.net>
> > wrote (in <1kpirajws18ml$.dlg@news.individual.net>) about 'S - Y
> > Parameter conversion with Smith Chart', on Sun, 1 Aug 2004:
> >>On Sun, 1 Aug 2004 02:19:02 +0000 (UTC), Reg Edwards wrote:
> >>
> >>>> Could you please explain that a bit more? The chart is a graphical way
> >>>> of doing mathematics. Where does frequency enter the picture?
> >>
> >>Reaactance depends on it. I must not understand your question.
> >
> > Reg wrote that the Smith Chart doesn't work at low frequencies. Since
> > it's just a way of solving equations, it can't fail to work. What
> > 'fails' is that at low frequencies, either different equations apply
> > (no) or different terms in the equations become significant (yes).
> >>>>
> >>>> If you mean that the characteristic impedances of 'transmission lines'
> >>>> at low frequencies aren't resistive, I quite agree.
> >>>> --
> >>> ================================
> >>>
> >>> The characteristic impedances of ALL practical lines aren't resistive.
> >
> > Well, yes, but at high enough frequencies, the reactive term is small.
> >
> > Zo^2 = (R + jwL)/(G + jwC)
> >
> > For high enough w (omega), provided R (series resistance) and G (shunt
> > loss resistance) are low, Zo^2 = L/C.
> >
> >> But
> >>> your statement just about sums up the situation.
> >
> > You agree with my explanation above, that it's not the chart that
> > 'fails', but that terms in the equations change significance at low
> > frequencies?
>
> Makes sense to me, but I think you're asking Reg, judging by the
> number of quote ">" characters.
```

I think I agree with you. The Smith Chart is not frequency dependent. The models regarding RF transmission line impedance do start to break down at "low" frequencies. This has nothing to do with the Smith Chart. You get the same bad answers with analytical method using bad models as you do with a Smith Chart. IOW, Reg was wrong. The Smith Chart is not limited to solving only transmission line problems.

1442. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-03 19:54:40 UTC
From: gwhite <gwhite@TaxesInstitutes.com>
Message-ID: <410FED80.1A5BF632@TaxesInstitutes.com>
Source record: 24324
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

Activ8 wrote:
>

> Ok. I think I understand your confusion, now, and I hope I didn't
> call it a Y param (part of the OP subject) and just said it's not an
> s-param, which as I said, isn't expressed as a complex number, IME.

I regard polar numbers as complex, especially if the angle is not zero.

1443. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-03 20:14:08 UTC
From: John Woodgate <jmw@jmwa.demon.contraspam.yuk>
Message-ID: <AsyVd7EQI$DBFwVH@jmwa.demon.co.uk>
Source record: 24325
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

I read in sci.electronics.design that gwhite
<gwhite@TaxesInstitutes.com> wrote (in <410FED80.1A5BF632@TaxesInstitute
s.com>) about 'S - Y Parameter conversion with Smith Chart', on Tue, 3
Aug 2004:
>
>
>Activ8 wrote:
>>
>
>> Ok. I think I understand your confusion, now, and I hope I didn't
>> call it a Y param (part of the OP subject) and just said it's not an
>> s-param, which as I said, isn't expressed as a complex number, IME.
>
>I regard polar numbers as complex, especially if the angle is not zero.

Of course; polar format is just one way of writing complex numbers.
--
Regards, John Woodgate, OOO - Own Opinions Only.
The good news is that nothing is compulsory.
The bad news is that everything is prohibited.
http://www.jmwa.demon.co.uk Also see http://www.isce.org.uk

1444. Re: Aluminium Foil as basis of tuning capacitors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-03 20:35:57 UTC
From: jgboyles@aol.com
Message-ID: <20040803163557.16712.00002010@mb-m22.aol.com>
Source record: 24326

>"L" configuration ATU's seem to need switching to change the capacitor
>(and the coil) from serial to parallel connection.

>Has anybody played around
>with making their own knife switches? Such switches would fit in with my
>plan to
>control the ATU via nylon rods

Why don't you use a DPDT relay to change configurations of the "L" network. I have done that on a couple of occasions and it works well.
73 Gary N4AST

1445. Re: Aluminium Foil as basis of tuning capacitors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-03 20:45:32 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2nac06Fup0sqU1@uni-berlin.de>
Source record: 24327

The fun of _REAL_ Ham Radio is doing things yourself.

(It's CBers who buy off-the-shelf automatic switches such as relays. :-))

I have in mind to make up a big rotary switch (lots of luvverly brass)
to cycle through the range of permutations possible.

Another Question

What's a good variable inductor to place in the ATU? I saw an interesting
one recently where the inductor seemed to be a tape where the unused portion
was wound onto a conducting drum, rather reminiscent of the fusee in
horological movements.

"JGBOYLES" <jgboyles@aol.com> wrote in message
news:20040803163557.16712.00002010@mb-m22.aol.com...
> >"L" configuration ATU's seem to need switching to change the capacitor
> >(and the coil) from serial to parallel connection.
>
> >Has anybody played around
> >with making their own knife switches? Such switches would fit in with my
> >plan to
> >control the ATU via nylon rods
>
> Why don't you use a DPDT relay to change configurations of the "L"
network. I
> have done that on a couple of occasions and it works well.
> 73 Gary N4AST

1446. FS: 5 National-Union 2Meg Pots, NOS in Boxes w/pics 1942

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-03 20:54:17 UTC
From: rlucch2098@aol.com
Message-ID: <20040803165417.21423.00000899@mb-m18.aol.com>
Source record: 24328

Hi All;
Here is an interesting set of Five(5) NOS N-U control pots that were made during WWII(1942). They are Cat#2MEG-tx(tapped) with on/off switch if activated by pulling a tab!
They are Sav-a-Shaft design which means that "to help out the war effort" you cut off the old shaft & tap it into the new pot with has a collar.
Switch is rated at 3A@125v or 1A @250v
I have not tested them because they are nos in original boxes.
Anyone need any?
5 for $20ppd!
Pics:
http://www.myradioroom.com/n-upots1.jpg
http://www.myradioroom.com/n-upots2.jpg
http://www.myradioroom.com/n-upots3.jpg

Thanks es 73...........RICH-WA2RQY RLUCCH2098@aol.com
Cheep Manuals for sale @>>
http://www.myradioroom.com/manualsales.html
Web-Page URL>
HTTP://members.aol.com/rlucch2098/index.html

1447. Re: rich cw for qrpp on hf

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-03 21:22:01 UTC
From: bg998@FreeNet.Carleton.CA
Message-ID: <ceovlp$i6k$1@freenet9.carleton.ca>
Source record: 24329

On lots of polar and near-polar ionospheric paths (like Tokyo to Ottawa) there can be considerable amounts of Doppler shifting and spreading of the signal, even under "normal" conditions. I regularly see plus/minus 10 hertz of spreading, sometimes asymmetrical. This shifting of the received carrier freq will add noise to your detection system. And if the fading rate of the signal approaches your nominal 100 hertz frequency you might never be able to lock onto the received carrier, even with the WWV reference.

But this in on near-polar paths, while transequatorial and ordinary short paths won't be bothered by this sort of thing except under the most extreme ionospheric conditions. So it sounds good. Why not build a simple system and try it, as 'proof of concept'. A real-world experiment is always better than a theoretical straw-man.

... Martin VE3OAT

The Eternal Squire (eternalsquire@comcast.net) writes:
> Hi,
>
> This are some questions to those of you who are experts on modulation
> and information theory, and the related FCC regs for HF. I've done
> preliminary reading on CCW, PSK, and FSK, and so my knowledge about
> the subject is only fair to middling, but I think I might be onto
> something.
>
> What I am interested in doing is creating a CW signal on HF can be
> keyed or copied by the human operator without computers, but that also
> contains enough extra information that simple hardware or even
> computers can pull discern it from noise.
>
> The concept goes something like this:
>
> On the transmit side, I start with a pure carrier. Then I vary it
> sinusoidally from +10 to -10 hertz of center, at a rate of 100 hertz.
> The carrier and the modulation are phase-locked to WWV.
>
> That gives the ordinary listener a buzzsaw sound which is slightly
> larger in spectrum than ordinary CW but much smaller in spectrum than
> voice.
>
> I then key the buzzsaw on and off like ordinary cw, as like 5 WPM.
> Sounds terrible, but at least it is CW.
>
> On the receive side, I'll use a frequency discriminator to detect the

> variation in frequency of the carrier, to yield a 100 hertz tone. I
> could then borrow a technique from CCW and use the WWV time standard
> to phase lock with the incoming tone and thereby increase signal to
> noise ratio.
>
> This gives me the two forms of redundancy with which to enrich the CW
> to stretch the range further.
>
> Questions are: 1) is this feasable? and 2) could this method fall
> into the category on allowable modulation methods for HF, with or
> without some tweaking?
> And 3) if it is feasable, is there anything more I can do to increase
> the redundancy for better receivability as a weak signal.
>
> Many thanks,
>
> The Eternal Squire

1448. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-03 21:28:55 UTC
From: Active8 <reply2group@ndbbm.net>
Message-ID: <hpjmbckfheau.dlg@news.individual.net>
Source record: 24330
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

On Tue, 3 Aug 2004 21:14:08 +0100, John Woodgate wrote:

> I read in sci.electronics.design that gwhite
> <gwhite@TaxesInstitutes.com> wrote (in <410FED80.1A5BF632@TaxesInstitute
> s.com>) about 'S - Y Parameter conversion with Smith Chart', on Tue, 3
> Aug 2004:
>>
>>
>>Activ8 wrote:
>>>
>>
>>> Ok. I think I understand your confusion, now, and I hope I didn't
>>> call it a Y param (part of the OP subject) and just said it's not an
>>> s-param, which as I said, isn't expressed as a complex number, IME.
>>
>>I regard polar numbers as complex, especially if the angle is not zero.
>
> Of course; polar format is just one way of writing complex numbers.

Sorry. I should have said "not expressed in rectangular form, IME."
<blush>
--
Best Regards,
Mike

1449. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-03 22:04:16 UTC
From: YD <yd.techHAT@techie.com>
Message-ID: <1320h0dlk9a83o53mce8vrdvjg37dsagaj@4ax.com>
Source record: 24331
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

On Tue, 03 Aug 2004 07:44:23 -0700, Jim Thompson
<thegreatone@example.com> wrote:

>On Tue, 03 Aug 2004 07:27:29 -0300, YD <yd.techHAT@techie.com> wrote:
>
>>On Sat, 31 Jul 2004 23:49:27 +0100, Paul Burridge
>[snip]
>>>TFB?? That's what you'd like to think, pal. One insult too many. I
>>>don't have to put up with any more of your abuse and I won't.
>>>Bye, Mike. It's getting *very* boring.
>>>
>>><plonk!>
>>
>>Surly little prick ain't you? Here you have a barrelful of useful
>>information but you just have to jump on the replies not to your
>>liking. Since you griped about them wasting your time I take it you're
>>a slow reader.
>>
>>- YD.
>
>"Slow reader"? "Slow learner" is more appropriate. Or maybe brain
>dead ;-)

Both or more. As Jerry states, these threads are of interest to all
general readers, I copied a couple of posts to the saved folder for
later perusal. So please don't let PB's bad behaviour discourage them.
I only suggest that PB be ignored when he flies off the handle and
starts dissing perfectly good replies because they're not what he
expected or he doesn't understand them. Somehow he manages to generate
huge threads of inanities and then gripe about wasting his time :-)

- YD.
--
Remove HAT if replying by mail.

1450. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-03 22:31:06 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <aa40h0hv768mgkf3mjost51028p05v237n@4ax.com>
Source record: 24332
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

On Tue, 03 Aug 2004 12:52:18 -0700, gwhite
<gwhite@TaxesInstitutes.com> wrote:

>I think I agree with you. The Smith Chart is not frequency dependent.
>The models regarding RF transmission line impedance do start to break
>down at "low" frequencies.

That was me, but I wasn't seriously suggesting they did break down.
Just having a gently sarcastic prod at Reg's lofty, generalised
dismissal of the usefulness of the Chart.
--

"What is now proved was once only imagin'd." - William Blake, 1793.

1451. Re: Aluminium Foil as basis of tuning capacitors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-03 22:47:08 UTC
From: jgboyles@aol.com
Message-ID: <20040803184708.16562.00001773@mb-m22.aol.com>
Source record: 24334

>The fun of _REAL_ Ham Radio is doing things yourself.

Of course, I have been doing that for 50 years.

>(It's CBers who buy off-the-shelf automatic switches such as relays. :-))

Relays have been around for 100 years. In order to make your own relay, you would need the capability of making your own enameled wire, as well as smelting metals for making the movable contacts, as well as some other things I have not thought of. Why in 2004 would you want to make your own relay?

>I have in mind to make up a big rotary switch (lots of luvverly brass)
>to cycle through the range of permutations possible.

How are you going to mine the metals and smelt that thing?

>What's a good variable inductor to place in the ATU?

Variable inductors are difficult to homebrew even if you can buy the wire, coil form ect.. If you have to homebrew the wire, as well as the coil form, and the movable contact, even more difficult.
As I see it the answer to most of your questions is how elementary do you want to get? A relay is very elementary, but I don't homebrew my own, neither variable inductors. I didn't fabricate the mosfets in my 1200 watt homebrew amplifier. I did the design, and building as all my HB projects. Am I a CB'er:-)?

73 Gary N4AST

1452. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-03 22:48:21 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <on40h0dr4hdojoe8lqgr39casit8g8ltcn@4ax.com>
Source record: 24333
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

On Tue, 3 Aug 2004 14:47:07 -0400, Active8 <reply2group@ndbbm.net>
wrote:

Can't stay in a killfile, eh? Don't you know morphing is against
Usenet etiquette? No matter. You'll get tired of morphing long before
I get tired of plonking you.

>On Tue, 03 Aug 2004 17:17:42 GMT, Jerry Martes wrote:
>
>> "Jim Thompson" <thegreatone@example.com> wrote in message
>> news:t19vg0dopi3k5mi198gkfubampe0in4vh2@4ax.com...
>>> On Tue, 03 Aug 2004 07:27:29 -0300, YD <yd.techHAT@techie.com> wrote:
>>>
>>>>On Sat, 31 Jul 2004 23:49:27 +0100, Paul Burridge
>>> [snip]
>>>>>TFB?? That's what you'd like to think, pal. One insult too many. I
>>>>>don't have to put up with any more of your abuse and I won't.
>>>>>Bye, Mike. It's getting *very* boring.
>>>>>
>>>>><plonk!>
>>>>
>>>>Surly little prick ain't you? Here you have a barrelful of useful
>>>>information but you just have to jump on the replies not to your
>>>>liking. Since you griped about them wasting your time I take it you're
>>>>a slow reader.

YD? Is he still here wasting bandwidth? I don't see his crap anymore;
at least *he* hasn't morphed. But he has backed the wrong horse...

>>> "Slow reader"? "Slow learner" is more appropriate. Or maybe brain
>>> dead ;-)

Bloody hell! Another wanker! Must be a bad day. ;->

>Just to summarize the part that's IMO most relevant to Burridges
>learning disability, Chis Bowick, on pp. 105 - 107 of Secrets of RF
>Design shows an example of a Z plotted on the Smith chart and he
>labels it with the complex number representing a Z load and it's
>reflection coefficient, both of which can be read directly off the
>chart. He then give conversion equations that can be used to find a
>numerical answer.
>
>What bugged me is that it's so easy to errantly think that a rect to
>polar conversion on the Z would yield an S param when in fact doing
>that just gives you a polar representation of Z, i.e. |Z| = sqrt(R^2

>+ X^2) and Z ang = atan(X/Y)

So at last you admit you got it wrong. It's about time. I can see where you f*cked up, Mike. I eventually got to the bottom of your elementary reading error in mistaking the relevant equations on P.107 for the simple ones on P.105 (from memory). Anyone can make a dumb-ass mistake like that, but it takes a *man* to admit it and apologise for going off so rudely on half-cock.
Jerry: you're reply wasn't correct but that doesn't bother me. You gave it in good faith and with the best of intentions. There are a lot of guys here who could learn from you where manners and good faith are concerned.
G'nite all...

p.

--

"What is now proved was once only imagin'd." - William Blake, 1793.

1453. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-04 00:02:15 UTC
From: Active8 <reply2group@ndbbm.net>
Message-ID: <1brii7fd3jdu6$.dlg@news.individual.net>
Source record: 24335
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

On Tue, 03 Aug 2004 23:48:21 +0100, Paul Burridge wrote:

> On Tue, 3 Aug 2004 14:47:07 -0400, Active8 <reply2group@ndbbm.net>
> wrote:
>
> Can't stay in a killfile, eh?

Please Paul, don't flatter yourself. You're the only person whose
ever killfiled me and I wasn't losing any sleep over it.

> Don't you know morphing is against
> Usenet etiquette? No matter. You'll get tired of morphing long before
> I get tired of plonking you.

I changed to Activ8 after someone mispelled it. I thought it was a
more proper way to convey "activate" as opposed to "active 8". I got
tired of looking at it and stuck the "e" back in there.

Active8 - when I throw the switch, it works.
>
>>On Tue, 03 Aug 2004 17:17:42 GMT, Jerry Martes wrote:
>>
>>> "Jim Thompson" <thegreatone@example.com> wrote in message
>>> news:t19vg0dopi3k5mi198gkfubampe0in4vh2@4ax.com...
>>>> On Tue, 03 Aug 2004 07:27:29 -0300, YD <yd.techHAT@techie.com> wrote:
>>>>
>>>>>On Sat, 31 Jul 2004 23:49:27 +0100, Paul Burridge
>>>> [snip]
>>>>>>TFB?? That's what you'd like to think, pal. One insult too many. I
>>>>>>don't have to put up with any more of your abuse and I won't.
>>>>>>Bye, Mike. It's getting *very* boring.
>>>>>>
>>>>>><plonk!>
>>>>>
>>>>>Surly little prick ain't you? Here you have a barrelful of useful
>>>>>information but you just have to jump on the replies not to your
>>>>>liking. Since you griped about them wasting your time I take it you're
>>>>>a slow reader.
>
> YD? Is he still here wasting bandwidth? I don't see his crap anymore;
> at least *he* hasn't morphed. But he has backed the wrong horse...
>
>>>> "Slow reader"? "Slow learner" is more appropriate. Or maybe brain
>>>> dead ;-)
>

> Bloody hell! Another wanker! Must be a bad day. ;->
>
>>Just to summarize the part that's IMO most relevant to Burridges
>>learning disability, Chis Bowick, on pp. 105 - 107 of Secrets of RF
>>Design shows an example of a Z plotted on the Smith chart and he
>>labels it with the complex number representing a Z load and it's
>>reflection coefficient, both of which can be read directly off the
>>chart. He then give conversion equations that can be used to find a
>>numerical answer.
>>
>>What bugged me is that it's so easy to errantly think that a rect to
>>polar conversion on the Z would yield an S param when in fact doing
>>that just gives you a polar representation of Z, i.e. |Z| = sqrt(R^2
>>+ X^2) and Z ang = atan(X/Y)
>
> So at last you admit you got it wrong.

Just the polar conversion part which I recanted long ago - probably
in my second post. I haven't reversed my original statement that the
Z can be read as S directly off the chart *as is* if you measure the
vector and project it to the unit circle. The equations on p 105 are
irrelevant to the original question.

> It's about time. I can see
> where you f*cked up, Mike. I eventually got to the bottom of your
> elementary reading error in mistaking the relevant equations on P.107
> for the simple ones on P.105 (from memory).

That ain't the case. I was looking at the chart and suggested a
polar conversion, which I later termed a "knee jerk" response.

> Anyone can make a dumb-ass
> mistake like that, but it takes a *man* to admit it and apologise for
> going off so rudely on half-cock.

I slapped you around because you couldn't just accept that the
graphical solution works. Also, you're slow on the uptake (remember
not understanding those colored arcs you posted) and it might just
be possible that serious electronic design (as opposed to twiddling
values in spice) isn't for you. I'm one of those assholes that isn't
satisfied until I can derive the design equations from basic
principles and all that. Despite the work required to aquire that
ability, I keep at it until it's second nature.

--
Best Regards,
Mike

1454. Re: VN88 Fets as linear amp

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-04 00:54:51 UTC
From: Ken Scharf <wa2mzeNOTTHIS@bellsouth.net>
Message-ID: <2DWPc.987$Mg1.411@bignews4.bellsouth.net>
Source record: 24336

Joko wrote:
> On Tue, 03 Aug 2004 19:36:19 +1000, Alan Peake
> <adpeake@killspam.internode.on.net> wrote:
>
> Dabbling with FET amps myself. Have a look here for some ideas:
>
> http://www.flashwebhost.com/tcvr/rf_power_amplifier.php
>
> A pair of IRF820s in push pull might yield 120W O/P on the lower
> bands, don't know about 20meters and up though, they may have too much
> capacitance to work well. Will experiment a bit once winter arrives.
>
> 73s VE3ELQ
>
>>Hi all,
>> Has anyone had experience with the Siliconix Vmos VN88? I've got a
>>pair running as a 1W linear on 40M and 80M but I've no idea of their
>>potential. They seem to have a much higher input impedance than
>>equivalently powered bipolars but I really don't have much of a feel for
>>this.
>>Any ideas on maximising ouput would be greatly appreciated,
>>Alan
>>VK2TWB
>>
>
>
I've got a bag full of IRF531's I was thinking of using for an rf linear
project. I think they have way too high input capacitance though. They
do have a very low on resistance and low thermal resistance.

1455. Re: VN88 Fets as linear amp

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-04 01:28:56 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10h0eutbc8ptm88@corp.supernews.com>
Source record: 24337

Just about all the power FETs have a very large input capacitance (which changes radically during the RF cycle). This makes driving them a real challenge, with the job getting harder as you go up in frequency. I believe there was a series of power FETs designed specifically for RF which have lower capacitance, but they were expensive. I've successfully driven a single IRF511 up to 15 meters in class C with reasonable efficiency by using a complementary-symmetry stage for very low driver output Z. You can find the circuit in _Experimental Methods in RF Design_ (Fig. 2.99), along with some other ways of dealing with power FETs.

If you possibly can, run a power FET at 24 or more volts on the drain. Among other benefits, it reduces the drain-gate capacitance which is a major help.

Roy Lewallen, W7EL

Ken Scharf wrote:
>>
> I've got a bag full of IRF531's I was thinking of using for an rf linear
> project. I think they have way too high input capacitance though. They
> do have a very low on resistance and low thermal resistance.

1456. Need data for Siemens varicap diode BB113

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-04 03:06:10 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <8ik0h0lvqc0kir1fbt8uiifuhss9kt0rc2@4ax.com>
Source record: 24338

Please help with data for Siemens BB113. Discovered that I had many such diodes, but haven't the faintest clue how to use them, tried to search, but found very little useful info, only that it is SOD37, but no mention for what is SOD37. So at least I need the connection, but better would have been a complete pdf file

jm

J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

1457. Re: VN88 Fets as linear amp

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-04 04:06:45 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10h0o695mteps33@corp.supernews.com>
Source record: 24339

Roy Lewallen wrote:

> Just about all the power FETs have a very large input capacitance (which
> changes radically during the RF cycle). This makes driving them a real
> challenge, with the job getting harder as you go up in frequency. I
> believe there was a series of power FETs designed specifically for RF
> which have lower capacitance, but they were expensive. I've successfully
> driven a single IRF511 up to 15 meters in class C with reasonable
> efficiency by using a complementary-symmetry stage for very low driver
> output Z. You can find the circuit in _Experimental Methods in RF
> Design_ (Fig. 2.99), along with some other ways of dealing with power FETs.
>
> If you possibly can, run a power FET at 24 or more volts on the drain.
> Among other benefits, it reduces the drain-gate capacitance which is a
> major help.
>
> Roy Lewallen, W7EL
>
> Ken Scharf wrote:
>
>>>
>> I've got a bag full of IRF531's I was thinking of using for an rf linear
>> project. I think they have way too high input capacitance though. They
>> do have a very low on resistance and low thermal resistance.

The semiconductor company formerly known as Motorola has had RF power
FETs up to VHF since the late '80s, they probably have them higher if
you can figure out the name.

There are also RF power JFETs out there. I suspect that any real player
in RF finals will have RF FETs of some sort or another. They tend to be
optimized for moderately high power (500W) and high drain voltages (50V).

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

1458. Re: Receive NDB beacons ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-04 04:14:19 UTC
From: Allan9 <exatc@neo1.rr.com>
Message-ID: <voZPc.1404$Vx2.18@fe2.columbus.rr.com>
Source record: 24340
Cross-posted to: alt.radio.scanner,rec.radio.amateur.homebrew,rec.radio.scanner,sci.electronics.design

Jumping in here with only knowing half the subject already discussed. NDB (Non-Directionsl Radio Beacons) as I know them are an aviation navigational aid. They are not used to the best of my knowledge as long range navaids but are used for instrument approaches into airports or as a component of other types of instrument approaches. I would reearch if what you propose could present a risk to the flying public.
Al

"Richard" <nearlynews_email@ntlworld.com> wrote in message
news:2mpqt4FpbcrqU1@uni-berlin.de...
>
>
> "Damien Teney" <dteney@hotmail.com> wrote in message
> news:WvSdnfBdaO5H2JjcRVnyhg@scarlet.biz...
> > Hello everybody,
> > I wonder if anyone has already tried to receive the signal of NDB
beacons
> ?
> > These are long-range radio beacons, used by aircrafts for navigation,
> > operating in the frequencies from stg like 200 to 500 KHz I think. Their
> > signal is AM-modulated with a sound signal of their code (three letters)
> in
> > morse.
> >
> > It would be an interesting project to build a receiver and ADF for these
> > beacons, but I'd like to know if anyone has already tried that.
> >
> > Thanks for your answers ;-)
> >
>
> I've just started an interest in NDB DXing.
>
> There is a good list you can join.
>
> Go to:
>
> http://www.beaconworld.org.uk/info.htm
>
> Download the welome pack and then open up the FAQ. That tells you how to
> join the list.
>
> I've got a circuit for a NDB RX if you want to look at it. It's in PDF
> format.

>
> Other links I found.
>
> http://www.altair.org/lowfer.htm
> http://www.qru.de./#operation
> http://www.picks.force9.co.uk/ngy.htm
> http://www.provcomm.net/pages/joe/introvlf.htm
> http://www.qsl.net/sv1xv/lw.htm
> http://www.kilkeel7.freeserve.co.uk/
> http://www.m0wye.thersgb.net/LF.HTM
> http://www.spaceweather.com/glossary/inspire.html
> http://nowindows.net/www.nickbeee.uklinux.net/navaids/index.htm
> http://mail.beaconworld.org.uk/mailman/listinfo/ndblist_beaconworld.org.uk
> http://lwca.org/library/articles/kh6sr/index.htm
> http://homepages.force9.net/picks/lfsigs.htm
> http://www.isd.net/~ki0le/pages/sounds.htm
> http://www.acay.com.au/~willt/lhi/ndb.html
> http://www.ringsurf.com/netring?ring=Beacons;action=list��
> http://home.online.no/~la8ak/L1.htm
> http://www.qsl.net/vk5br/VLFLFRx.htm
> http://www4.tpgi.com.au/users/ldbutler/ActiveLoopConverter.htm
> http://members.lycos.nl/Aren/id43.htm
> http://www4.tpgi.com.au/users/ldbutler/LFNoiseCancel.htm
> http://technology.fanshawec.ca/eltn124/leeloop.htm
> http://www4.tpgi.com.au/users/ldbutler/NoiseBlank.htm
> http://www4.tpgi.com.au/users/ldbutler/VLF-LFLoopAerial.htm
> http://www.lfengineering.com/products.htm
> http://www.nautel.com/products/index.php?group=7
> http://www.qru.de/MV61.htm
> http://www.germansurplus.de/
> http://www.qru.de/selective%20level%20meters.html
> http://www.mb-radio.co.uk/frames/test/misc/misc.html
> http://www.eilers-electronic.com/seiten/a_v_r_meter/mv_61/mv_61.htm
> http://www.gatewaylinks.com/NDBLOG/home.htm
> http://home4.swipnet.se/~w-41522/ndb/ndbphoto.html
> http://nowindows.net/www.nickbeee.uklinux.net/navaids/ndblist.htm
> http://www.lwca.org/sitepage/lfutil/index.htm
> http://www.lwca.org/index070404final.htm
> http://beaconworld.org.uk/beaconlinks.htm
> http://beaconworld.org.uk/download.htm
> http://www.beaconworld.org.uk/info.htm
> http://beaconworld.org.uk/wavs.htm
>
> No doubt there are more.
>

1459. Re: rich cw for qrpp on hf

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-04 05:22:07 UTC
From: The Eternal Squire <eternalsquire@comcast.net>
Message-ID: <GcKdnUDXsoLo743cRVn-jQ@comcast.com>
Source record: 24341

Martin,

Thanks for the comments. Yes, I do want to build a proof of concept,
but I needed help in getting as many people to either poke holes in the
theory if possible or suggest improvements.

I've gotten opinions back from a few people in private.

One of the opinions is that a narrow shifted fm signal varied by 100
hertz is not allowed on HF. I think I am describing a form of F1
modulation, which certainly is allowed on HF alongside A1 modulation.

Even if that person is right, I could work around that by instead
alternating with two carriers seperated by 20 hz. Each carrier would
be on for 10 milliseconds before switching to the other carrier. It
would be a form of FSK containing nothing but clocking information at
close to the maximum baud rate allowed on HF. I would then on-off-key
the FSK.

I can extend this and even alter the duty cycle of shifting between
the carriers to contain another form of clocking information.

Can you suggest any further improvements or changes?

Thanks,

The Eternal Squire

Martin Potter wrote:
> On lots of polar and near-polar ionospheric paths (like Tokyo to Ottawa)
> there can be considerable amounts of Doppler shifting and spreading of the
> signal, even under "normal" conditions. I regularly see plus/minus 10
> hertz of spreading, sometimes asymmetrical. This shifting of the received
> carrier freq will add noise to your detection system. And if the fading
> rate of the signal approaches your nominal 100 hertz frequency you might
> never be able to lock onto the received carrier, even with the WWV
> reference.
>
> But this in on near-polar paths, while transequatorial and ordinary short
> paths won't be bothered by this sort of thing except under the most extreme
> ionospheric conditions. So it sounds good. Why not build a simple system
> and try it, as 'proof of concept'. A real-world experiment is always
> better than a theoretical straw-man.
>
> ... Martin VE3OAT
>
>

> The Eternal Squire (eternalsquire@comcast.net) writes:
>
>>Hi,
>>
>>This are some questions to those of you who are experts on modulation
>>and information theory, and the related FCC regs for HF. I've done
>>preliminary reading on CCW, PSK, and FSK, and so my knowledge about
>>the subject is only fair to middling, but I think I might be onto
>>something.
>>
>>What I am interested in doing is creating a CW signal on HF can be
>>keyed or copied by the human operator without computers, but that also
>>contains enough extra information that simple hardware or even
>>computers can pull discern it from noise.
>>
>>The concept goes something like this:
>>
>>On the transmit side, I start with a pure carrier. Then I vary it
>>sinusoidally from +10 to -10 hertz of center, at a rate of 100 hertz.
>>The carrier and the modulation are phase-locked to WWV.
>>
>>That gives the ordinary listener a buzzsaw sound which is slightly
>>larger in spectrum than ordinary CW but much smaller in spectrum than
>>voice.
>>
>>I then key the buzzsaw on and off like ordinary cw, as like 5 WPM.
>>Sounds terrible, but at least it is CW.
>>
>>On the receive side, I'll use a frequency discriminator to detect the
>>variation in frequency of the carrier, to yield a 100 hertz tone. I
>>could then borrow a technique from CCW and use the WWV time standard
>>to phase lock with the incoming tone and thereby increase signal to
>>noise ratio.
>>
>>This gives me the two forms of redundancy with which to enrich the CW
>>to stretch the range further.
>>
>>Questions are: 1) is this feasable? and 2) could this method fall
>>into the category on allowable modulation methods for HF, with or
>>without some tweaking?
>>And 3) if it is feasable, is there anything more I can do to increase
>>the redundancy for better receivability as a weak signal.
>>
>>Many thanks,
>>
>>The Eternal Squire
>
>
>

1460. FS: Home Brew HF Linear Amplifier 80-10 meters, single Eimac 4-400

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-04 06:03:09 UTC
From: N2LGB <kmil@REMOVE.skyweb.net>
Message-ID: <g8u0h0tih4sh6hrg42j2148vm03mqpols1@4ax.com>
Source record: 24342
Cross-posted to: rec.radio.swap,rec.radio.amateur.homebrew,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment

HF Linear Amplifier 80-10 meters single Eimac 4-400 with
separate RF Deck and Power Supply.
Nicely built the RF Deck looks like a Henry.

Output is adjustable with a simple change in value of a grid resistor.
Spare Eimac 4-400 NOS - tested however no hours,
both tubes in great shape.
Prefer pick up - the powersupply is heavy. $275

de N2LGB
kmil@REMOVE.skyweb.net

1461. Re: My Unbelievable story is translation

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-04 06:14:57 UTC
From: Zoran Dimitrijevic <nacomp@EUnet.yu>
Message-ID: <cepuvpago1@news.eunet.yu>
Source record: 24344

This is so realistic, I have argumen for everithing...

--
Unllikly, Realistic
How is quash Royal parentage Obrenovic
and criminal in Serbia
---
http://www30.brinkster.com/aferatelekom
http://solair.eunet.yu/~nacomp
http://solair.eunet.yu/~zorandi

Kako je ugusena Kraljevska Dinastija Obrenovic
i kriminal u Srbiji

Zoran Dimitrijevic
"Paul Burridge" <pb@notthisbit.osiris1.co.uk> wrote in message
news:8poug0lbnolpk0laqojek5f9sfcqev3vtg@4ax.com...
> On Tue, 3 Aug 2004 11:28:42 +0200, "Zoran Dimitrijevic"
> <nacomp@EUnet.yu> wrote:
>
> [snip]
>
> Not so much unbelievable as incomprehensible.
> --
>
> "What is now proved was once only imagin'd." - William Blake, 1793.

1462. Re: Aluminium Foil as basis of tuning capacitors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-04 06:35:56 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2nbennFudnqdU2@uni-berlin.de>
Source record: 24343

Ding-Ding! Ding-Ding!! Ding-Ding!!! Ding-Ding!!!! Ding-Ding!!!!!

Sense-of-humour-failure alarm!!!!!

"JGBOYLES" <jgboyles@aol.com> wrote in message
news:20040803184708.16562.00001773@mb-m22.aol.com...
> >The fun of _REAL_ Ham Radio is doing things yourself.
> Of course, I have been doing that for 50 years.
> >(It's CBers who buy off-the-shelf automatic switches such as relays. :-))
> Relays have been around for 100 years. In order to make your own relay,
you
> would need the capability of making your own enameled wire, as well as
smelting
> metals for making the movable contacts, as well as some other things I
have not
> thought of. Why in 2004 would you want to make your own relay?
> >I have in mind to make up a big rotary switch (lots of luvverly brass)
> >to cycle through the range of permutations possible.
> How are you going to mine the metals and smelt that thing?
> >What's a good variable inductor to place in the ATU?
> Variable inductors are difficult to homebrew even if you can buy the wire,
coil
> form ect.. If you have to homebrew the wire, as well as the coil form, and
the
> movable contact, even more difficult.
> As I see it the answer to most of your questions is how elementary do
you
> want to get? A relay is very elementary, but I don't homebrew my own,
neither
> variable inductors. I didn't fabricate the mosfets in my 1200 watt
homebrew
> amplifier. I did the design, and building as all my HB projects. Am I a
> CB'er:-)?

1463. Re: VN88 Fets as linear amp

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-04 08:07:54 UTC
From: Alan Peake <adpeake@killspam.internode.on.net>
Message-ID: <4110995A.4050403@killspam.internode.on.net>
Source record: 24345

> VN88AF in the TO-202 case is good for about 15w to 25 deg C and derate
> at 120mW/Degree C.
>
> I've played whth them years ago. Neat parts but newer are better.
>
> For practical cases the IRF510 is a better device and more easily
> found.
>
> The problem with power fets of this type (VN88) is you need to hit
> them with fairly high gate voltages to really turn them on and the
> input capacitance (50 pf) makes it fairly hard to do that easily at
> HF. While the gate draws no real power, pushing the capacitive load
> (gate input) is going to take power and look very reactive while doing
> it. The IRF510/511 required less gate drive being newer and higher
> transconductance making it a bit less painful.
>
> Allison
> KB!GmX

Thanks for that. I'm only using VN88s because I had some - there are no nearby RF FET shops here :)
I'll play around with the drive circuitry a bit more and see what I can get. I'm ony using 15V on the drains at the moment so I might bump that up to 24 or so.
The main thing I like about FETs is their thermal stability. I fried a few BJTs because it's hard to stabilise them in breadboard setups.
Thanks also to the others who replied.
Alan
VK2TWB

1464. For Sale: Tubular Tower MA55, SteppIR, Yaesu G-800DXA, K-2

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-04 08:19:01 UTC
From: specialist <callme@yahoo.com>
Message-ID: <VZ0Qc.202884$a24.181117@attbi_s03>
Source record: 24346

Please let me know if anyone is interested in purchasing
Tubular Tower MA55 with 11 ft Extension
SteppIR 3 ele Antenna with 6m Element
Yaesu Rotator G-800DXA
All RF and Control cables
Also a K-2 radio with all the options has to go. I had to move to one of
those Restricted developements that doesn't allow towers.
For info and pictures go to www.qrpclub.com

Eugene KH7YD/w7
e-mail: kh7yd@yahoo.com
www.qrpclub.com

1465. Re: Need data for Siemens varicap diode BB113

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-04 09:20:54 UTC
From: Joe McElvenney <ximac@btinternet.com>
Message-ID: <VA.0000002f.00158016@btinternet.com>
Source record: 24247

Hi,

The only information I have is that they are a triple varicap
with Ct(max) = 280pF @ 1VR, VR(max) = 32V and, although they are
obviously silicon, a Tj(max) of only 80C.

Cheers - Joe

1466. Re: My Unbelievable story is translation

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-04 10:48:16 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <jif1h0df6isakp82pnhasaal8j72s0605m@4ax.com>
Source record: 24248

On Wed, 4 Aug 2004 08:14:57 +0200, "Zoran Dimitrijevic"
<nacomp@EUnet.yu> wrote:

>This is so realistic, I have argumen for everithing...

Well, that's easy for you to say.
But It's really can be gleaned not very helpful to use engines for
posting direct to Usenet as they tend screw up the grammar web-based
translation and very little sense from the original text.
HTH.
--

"What is now proved was once only imagin'd." - William Blake, 1793.

1467. Screw threads and spring in Vibroplex?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-04 10:49:11 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2nbtdsFuvb5pU1@uni-berlin.de>
Source record: 24249
Cross-posted to: rec.radio.amateur.homebrew,rec.crafts.metalworking,uk.rec.models.engineering

I wonder what the standard screw threads in a Vibroplex
are, bearing in mind its genesis of 100 years ago?

I imagine that it wouldn't be BA, as this was a Britland standard.

I've sorted through the junk box for this project and have located
a gert lump of black-rolled steel for the base, and quite a few offcuts of
brass for all the bits.

What metal is the Vibroplex pendulum made from? I've got a piece of
thin brass which might do the job.

1468. Re: My Unbelievable story is translation

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-04 11:58:39 UTC
From: Zoran Dimitrijevic <nacomp@EUnet.yu>
Message-ID: <ceqk8vhuo1@news.eunet.yu>
Source record: 24251

Ok. I know that my translation not is good.
If your understand little something of my story I'm very happy.
I hardly work that my story be illustrate in world.
And this of my story have so much, because I cane not write all
Intelligible. But with time to be Intelligible and grammar propriety.
I know that many people not understand history of my country and because my
story is splutter.
So, I must say everithing of my story in world.
With time across my book everithing be intelligible.
So, I hoop that your understand my situation, because I only have so much
fight and fight for Rebellion.
I know that is may story specious unrealistic, but with time to be obvious.
You trust me, I can't say everithing of my story for short time. Server for
my site so little.

Thank for your interest...

Hearty regard
Zoran Dimitrijevic

--
Unlikely, Realistic
How is quash Royal parentage Obrenovic
and criminal in Serbia
---
http://www30.brinkster.com/aferatelekom
http://solair.eunet.yu/~nacomp
http://solair.eunet.yu/~zorandi

Kako je ugusena Kraljevska Dinastija Obrenovic
i kriminal u Srbiji

Zoran Dimitrijevic
"Paul Burridge" <pb@notthisbit.osiris1.co.uk> wrote in message
news:jif1h0df6isakp82pnhasaal8j72s0605m@4ax.com...
> On Wed, 4 Aug 2004 08:14:57 +0200, "Zoran Dimitrijevic"
> <nacomp@EUnet.yu> wrote:
>
> >This is so realistic, I have argumen for everithing...
>
> Well, that's easy for you to say.
> But It's really can be gleaned not very helpful to use engines for
> posting direct to Usenet as they tend screw up the grammar web-based
> translation and very little sense from the original text.
> HTH.

> --
>
> "What is now proved was once only imagin'd." - William Blake, 1793.

1469. Re: Screw threads and spring in Vibroplex?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-04 12:36:56 UTC
From: Nobody@nowhere.fink
Message-ID: <ijl1h0p9i1bpvib5cmikigt43a6079ul7d@4ax.com>
Source record: 24250
Cross-posted to: rec.radio.amateur.homebrew,rec.crafts.metalworking,uk.rec.models.engineering

On Wed, 4 Aug 2004 11:49:11 +0100, "Airy R. Bean" <me@privacy.net>
wrote:

>I wonder what the standard screw threads in a Vibroplex
>are, bearing in mind its genesis of 100 years ago?
>
>I imagine that it wouldn't be BA, as this was a Britland standard.
>
>I've sorted through the junk box for this project and have located
>a gert lump of black-rolled steel for the base, and quite a few offcuts of
>brass for all the bits.
>
>What metal is the Vibroplex pendulum made from? I've got a piece of
>thin brass which might do the job.
>
>
Kinda vague on what you mean by Vibroplex, the only thing I know with
that name is the keyers. In which case, and having just looked at
what remains of one, 8-32 is about all I see until I turn it over and
then see some 6-32 screws holding the stantions from the bottom.
Pendulum springs were spring steel, contact springs appear to be
phosphor bronze, could be wrong. Pendulum weight is steel, nickel
plated on one, brass, nickel plated on another. Pendulum rod appears
harder, maybe music wire, might have been some other, but it's got
some toughness to it.

Lennie the Lurker

1470. Re: VN88 Fets as linear amp

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-04 15:16:26 UTC
From: notme@aol.com
Message-ID: <4110ee88.4106645@usenet.magma.ca>
Source record: 24252

On Tue, 03 Aug 2004 18:28:56 -0700, Roy Lewallen <w7el@eznec.com>
wrote:

>Just about all the power FETs have a very large input capacitance (which
>changes radically during the RF cycle). This makes driving them a real
>challenge, with the job getting harder as you go up in frequency. I
>believe there was a series of power FETs designed specifically for RF
>which have lower capacitance, but they were expensive. I've successfully
>driven a single IRF511 up to 15 meters in class C with reasonable
>efficiency by using a complementary-symmetry stage for very low driver
>output Z. You can find the circuit in _Experimental Methods in RF
>Design_ (Fig. 2.99), along with some other ways of dealing with power FETs.
>
>If you possibly can, run a power FET at 24 or more volts on the drain.
>Among other benefits, it reduces the drain-gate capacitance which is a
>major help.
>
>Roy Lewallen, W7EL

Exactly Ron,
My limited research has turned up a number of excellent RF power fets
and application notes for HF linear amplifier use as you mention.
Problem is they are gawd awfull expensive and hard to source. One does
not want to fry too many while experimenting. At $1.40 each and with
impressive specs and the IRF820 looks to be an attractive candidate
for RF experimenters. I use the IRF510 as a base line for comparison
since there are several linear designs out there using them up to 28
mhz. The IRF820 is a newer generation mesh overlay fet with extremely
fast dv/dt and Td(on), Rt, and Td(off) times comparable to the IRF510.
It has a higher dissipation of 80w verses 43W for the 510 but a higher
input capacitance of 315pf verses 180pf for the 510 which may present
the biggest design challenge for use up to 28mhz. Best of all its a
500V FET meaning a high drain voltage can be used reducing the effects
of gate capacitance change under dynamic conditions. At 170 volts Vdd
the power supply could simply be rectified mains with no expensive
transformer or RFI generating switching stuff and the higher impedance
would make matching to 52ohms easier and more efficient. A 4 fet 300W
at 170 Vdd amp works out to 48ohms output Z. Yup, its starting to look
like a tube. The link I posted showed a single IRF820 making 60W SSB
on 40meters. I think it could do better. A pair, or even two pair in
push pull at 170 volts Vdd could make some serious RF power. I plan
to try some in the near future and possibly come up with an amplifier
design. Even 160, 80, and 40 would be acceptable to me with 20m a
bonus. I would love to hear what others are trying in this regard.
I'm registered with QRZ and RAC. A 40 meter home brew net would be

great.

Best 73, ...- . ...-- . .-.. --.-

1471. Search Info on Toyo TQF-4754 Crystal filter.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-04 15:36:26 UTC
From: Krzysztof Doniczka <kdoniczka@NO-SPAMinteria.pl>
Message-ID: <ceqvbadhr1@shodan.interia.pl>
Source record: 24253

Hi, Im looking any info on a 10,7 MHz crystal filter Toyo TQF-4754.
Anybody help me ?

Krzysztof
SQ9HHL - Poland. Loc. JO90HG

1472. Re: Screw threads

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-04 15:42:44 UTC
From: Old Nick <nsnsafemail@dodo.com.au>
Message-ID: <pu02h059c7ve9mahas43cqmjevttkiei4n@4ax.com>
Source record: 24254
Cross-posted to: rec.radio.amateur.homebrew,rec.crafts.metalworking,uk.rec.models.engineering

On Wed, 4 Aug 2004 11:49:11 +0100, "Airy R. Bean" <me@privacy.net>
vaguely proposed a theory
.....and in reply I say!:

remove ns from my header address to reply via email

I agree with the topic
****
It's not the milk and honey we hate. It's having it
rammed down our throats.

1473. Re: Receive NDB beacons ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-04 15:55:18 UTC
From: Dave VanHorn <dvanhorn@cedar.net>
Message-ID: <KKqdnbAFQtp6m4zcRVn-sQ@comcast.com>
Source record: 24255
Cross-posted to: alt.radio.scanner,rec.radio.amateur.homebrew,rec.radio.scanner,sci.electronics.design

"Allan9" <exatc@neo1.rr.com> wrote in message
news:voZPc.1404$Vx2.18@fe2.columbus.rr.com...
> Jumping in here with only knowing half the subject already discussed. NDB
> (Non-Directionsl Radio Beacons) as I know them are an aviation
navigational
> aid. They are not used to the best of my knowledge as long range navaids
> but are used for instrument approaches into airports or as a component of
> other types of instrument approaches. I would reearch if what you propose
> could present a risk to the flying public.

How would building a receiver cause a problem?

1474. Re: Need data for Siemens varicap diode BB113

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-04 16:18:51 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <cer2dqgr1@newshost.mot.com>
Source record: 24257

"Joe McElvenney" <ximac@btinternet.com> wrote in message
news:VA.0000002f.00158016@btinternet.com...
> Hi,
>
> The only information I have is that they are a triple varicap
> with Ct(max) = 280pF @ 1VR, VR(max) = 32V and, although they are
> obviously silicon, a Tj(max) of only 80C.
>
>
> Cheers - Joe

Google turned up this:
http://computer.freepage.de/cgi-bin/feets/freepage_ext/41030x030A/rewrite/peterstrohmeyer/diode.htm

Look out for the line wrap...

Looks like it is 255pf to 13 pf at 1 to 13 volts
I think that's an SOT 13, but not sure..
--
Steve N, K,9;d, c. i My email has no u's.

Typ Geh�use V mA mA V
URM URWM IFAV IFRM Cap bei UR
(rf / rs) (UR) (IFSM) (QS)
BB105A Sod-23 (0,6) (28) 20 17,5-2,5 1-25
BB105B Sod-23 (0,7) (28) 20 17,5-2,1 1-25
BB105G Sod-23 (0,9) (28) 20 17,5-2,2 1-25
BB106 Sod-23 (0,4) (28) 20 20-4,8 3-25
BB109B Sod-23 (<0,6) (28) 50 29-5,1 3-25
BB110B Sod-23 (<0,4) (30) 100 31-11 3-30
BB110G Sod-23 (<0,4) (30) 100 29-11 3-30
BB113 Sod-37 (<4,0) (32) 50 255-13 1-30

>
>

1475. Re: Aluminium Foil as basis of tuning capacitors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-04 16:21:56 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <cer2jjhd1@newshost.mot.com>
Source record: 24258

I once made a capacitor from Al foil and the cover of a log book. It was
the cap for a neon bulb relaxation oscillator. I had an old photo-flash
300V battery. Since the foil would be attracted together more as the
voltage rose, you could hear the tone.

--
Steve N, K,9;d, c. i My email has no u's.

"Airy R. Bean" <me@privacy.net> wrote in message
news:2nbennFudnqdU2@uni-berlin.de...
> Ding-Ding! Ding-Ding!! Ding-Ding!!! Ding-Ding!!!! Ding-Ding!!!!!
>
> Sense-of-humour-failure alarm!!!!!
>
> "JGBOYLES" <jgboyles@aol.com> wrote in message
> news:20040803184708.16562.00001773@mb-m22.aol.com...
> > >The fun of _REAL_ Ham Radio is doing things yourself.
> > Of course, I have been doing that for 50 years.
> > >(It's CBers who buy off-the-shelf automatic switches such as relays.
:-))
> > Relays have been around for 100 years. In order to make your own relay,
> you
> > would need the capability of making your own enameled wire, as well as
> smelting
> > metals for making the movable contacts, as well as some other things I
> have not
> > thought of. Why in 2004 would you want to make your own relay?
> > >I have in mind to make up a big rotary switch (lots of luvverly brass)
> > >to cycle through the range of permutations possible.
> > How are you going to mine the metals and smelt that thing?
> > >What's a good variable inductor to place in the ATU?
> > Variable inductors are difficult to homebrew even if you can buy the
wire,
> coil
> > form ect.. If you have to homebrew the wire, as well as the coil form,
and
> the
> > movable contact, even more difficult.
> > As I see it the answer to most of your questions is how elementary do
> you
> > want to get? A relay is very elementary, but I don't homebrew my own,
> neither
> > variable inductors. I didn't fabricate the mosfets in my 1200 watt
> homebrew
> > amplifier. I did the design, and building as all my HB projects. Am I

a
> > CB'er:-)?
>
>
>
>

1476. Re: VN88 Fets as linear amp

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-04 16:22:28 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <a732h0d9nk2fgcleq6h8dk75bc3vk7chui@4ax.com>
Source record: 24256

On Wed, 04 Aug 2004 15:16:26 GMT, notme@aol.com (Joko) wrote:

>A 40 meter home brew net would be
>great.

I'm not sure "net" would be the appropriate term. Certainly not for CW
but probably just about okay for WBFM. :-)
--

"What is now proved was once only imagin'd." - William Blake, 1793.

1477. Re: Aluminium Foil as basis of tuning capacitors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-04 17:22:25 UTC
From: 2n2369 <albamarrNOSPAMM@tiscali.it>
Message-ID: <ceto4f$dp6$2@lacerta.tiscalinet.it>
Source record: 24277

you can see here :
http://www.leradiodisophie.it
italian site , look at at index since I don't remember just that page
ciao da 2n2369 italian boy

1478. Re: Stability of huff & puff.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-04 17:39:01 UTC
From: Richard <nearlynews_email@ntlworld.com>
Message-ID: <2ncl7fFth4ggU1@uni-berlin.de>
Source record: 24259

"Hans Summers" <hans.summers@tudor.com> wrote in message
news:2n8vp4Fubm20U1@uni-berlin.de...

> Huff Puff circuits are a lot of fun: a simple circuit with endless variety
> and possibility for experimentation. DDS is a little more complex and also
> poses the risk of spurs, though as others have mentioned their effects can
> be mitigated.

I agree about the experimentation. It could be instructive seeing, in practice, how fine the fine tuning control could be made to work. Might give DDS a bit more competition.:c) I'm not as yet sufficiently educated in theory of stabilisation, well, in electronics generally, so it might take me a few months. If I start now I might have something up and running by Christmas, and probably by next spring with all the other stuff crying out for attention. :c)

1479. Re: VN88 Fets as linear amp

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-04 18:06:09 UTC
From: g3mea@harle2000.fsnet.co.uk
Message-ID: <4111253f.6479484@news.freeserve.net>
Source record: 24260

See QRP Classics (ARRL) page 98

Stan G3MEA

1480. Re: Stability of huff & puff.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-04 18:45:36 UTC
From: "Harold E. Johnson" <W4ZCB@mchsi.com>
Message-ID: <k9aQc.244348$Oq2.199229@attbi_s52>
Source record: 24261

I agree about the experimentation. It could be instructive seeing, in
> practice, how fine the fine tuning control could be made to work. Might
give
> DDS a bit more competition.:c) I'm not as yet sufficiently educated in
> theory of stabilisation, well, in electronics generally, so it might take
me
> a few months. If I start now I might have something up and running by
> Christmas, and probably by next spring with all the other stuff crying out
> for attention. :c)
>

No need for procrastination, grab a copy of the "Fast " digital oscillator stabilizer by G7IXH, and print your PCBoard from it. Order what parts you don't have and while they're coming from Thief River Falls, etch and drill your board. Ought to have it operational by this time next week. No added PLL phase noise and stable like the rock of Gibralter.

W4ZCB

1481. Re: Receive NDB beacons ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-04 18:50:47 UTC
From: John Woodgate <jmw@jmwa.demon.contraspam.yuk>
Message-ID: <pxgP6$CHATEBFwpb@jmwa.demon.co.uk>
Source record: 24262
Cross-posted to: alt.radio.scanner,rec.radio.amateur.homebrew,rec.radio.scanner,sci.electronics.design

I read in sci.electronics.design that Dave VanHorn <dvanhorn@cedar.net>
wrote (in <KKqdnbAFQtp6m4zcRVn-sQ@comcast.com>) about 'Receive NDB
beacons ?', on Wed, 4 Aug 2004:
>
>"Allan9" <exatc@neo1.rr.com> wrote in message
>news:voZPc.1404$Vx2.18@fe2.columbus.rr.com...
>> Jumping in here with only knowing half the subject already discussed. NDB
>> (Non-Directionsl Radio Beacons) as I know them are an aviation
>navigational
>> aid. They are not used to the best of my knowledge as long range navaids
>> but are used for instrument approaches into airports or as a component of
>> other types of instrument approaches. I would reearch if what you propose
>> could present a risk to the flying public.
>
>How would building a receiver cause a problem?
>
>
A homodyne, synchrodyne or super-regen would radiate and give a false
position. Other types of receiver would basically be OK, but I would
ensure that the LO wasn't in-band even so, if the receiver used a tewb
LO.
--
Regards, John Woodgate, OOO - Own Opinions Only.
The good news is that nothing is compulsory.
The bad news is that everything is prohibited.
http://www.jmwa.demon.co.uk Also see http://www.isce.org.uk

1482. Re: Receive NDB beacons ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-04 19:02:40 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <cerc0u$2ac$1@newshost.mot.com>
Source record: 24264
Cross-posted to: alt.radio.scanner,rec.radio.amateur.homebrew,rec.radio.scanner,sci.electronics.design

"Dave VanHorn" <dvanhorn@cedar.net> wrote in message
news:KKqdnbAFQtp6m4zcRVn-sQ@comcast.com...
>
> "Allan9" <exatc@neo1.rr.com> wrote in message
> news:voZPc.1404$Vx2.18@fe2.columbus.rr.com...
> > Jumping in here with only knowing half the subject already discussed.
NDB
> > (Non-Directionsl Radio Beacons) as I know them are an aviation
> navigational
> > aid. They are not used to the best of my knowledge as long range
navaids
> > but are used for instrument approaches into airports or as a component
of
> > other types of instrument approaches. I would reearch if what you
propose
> > could present a risk to the flying public.
>
> How would building a receiver cause a problem?
>
>

Non-precision approaches, perhaps, when they are close to a field. They are
little used today. They were intended for medium range navigation, replaced
by the VOR. I get a few on my 706 and 40M inverted Vee.

--
Steve N, K,9;d, c. i My email has no u's.

1483. Re: rich cw for qrpp on hf

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-04 19:43:48 UTC
From: Rick Karlquist N6RK <richard@karlquist.removethis.com>
Message-ID: <U%aQc.226646$JR4.134059@attbi_s54>
Source record: 24263

Like any form of FM, your proposed system will exhibit
threshold effect. Below threshold, it will be WORSE than
a carrier detect system. The more you spread out the signal,
the higher level the threshold effect will occur at.

If you simply apply FM at the transmitter and take it
off at the receiver, you have an analog spread spectrum
system. The modulation has no effect on performance,
or may make it worse due to selective fading.

Rick N6RK

"The Eternal Squire" <eternalsquire@comcast.net> wrote in message
news:GcKdnUDXsoLo743cRVn-jQ@comcast.com...
> Martin,
>
> Thanks for the comments. Yes, I do want to build a proof of concept,
> but I needed help in getting as many people to either poke holes in the
> theory if possible or suggest improvements.
>
> I've gotten opinions back from a few people in private.
>
> One of the opinions is that a narrow shifted fm signal varied by 100
> hertz is not allowed on HF. I think I am describing a form of F1
> modulation, which certainly is allowed on HF alongside A1 modulation.
>
> Even if that person is right, I could work around that by instead
> alternating with two carriers seperated by 20 hz. Each carrier would
> be on for 10 milliseconds before switching to the other carrier. It
> would be a form of FSK containing nothing but clocking information at
> close to the maximum baud rate allowed on HF. I would then on-off-key
> the FSK.
>
> I can extend this and even alter the duty cycle of shifting between
> the carriers to contain another form of clocking information.
>
> Can you suggest any further improvements or changes?
>
> Thanks,
>
> The Eternal Squire
>
> Martin Potter wrote:
> > On lots of polar and near-polar ionospheric paths (like Tokyo to Ottawa)
> > there can be considerable amounts of Doppler shifting and spreading of

the
> > signal, even under "normal" conditions. I regularly see plus/minus 10
> > hertz of spreading, sometimes asymmetrical. This shifting of the
received
> > carrier freq will add noise to your detection system. And if the fading
> > rate of the signal approaches your nominal 100 hertz frequency you might
> > never be able to lock onto the received carrier, even with the WWV
> > reference.
> >
> > But this in on near-polar paths, while transequatorial and ordinary
short
> > paths won't be bothered by this sort of thing except under the most
extreme
> > ionospheric conditions. So it sounds good. Why not build a simple
system
> > and try it, as 'proof of concept'. A real-world experiment is always
> > better than a theoretical straw-man.
> >
> > ... Martin VE3OAT
> >
> >
> > The Eternal Squire (eternalsquire@comcast.net) writes:
> >
> >>Hi,
> >>
> >>This are some questions to those of you who are experts on modulation
> >>and information theory, and the related FCC regs for HF. I've done
> >>preliminary reading on CCW, PSK, and FSK, and so my knowledge about
> >>the subject is only fair to middling, but I think I might be onto
> >>something.
> >>
> >>What I am interested in doing is creating a CW signal on HF can be
> >>keyed or copied by the human operator without computers, but that also
> >>contains enough extra information that simple hardware or even
> >>computers can pull discern it from noise.
> >>
> >>The concept goes something like this:
> >>
> >>On the transmit side, I start with a pure carrier. Then I vary it
> >>sinusoidally from +10 to -10 hertz of center, at a rate of 100 hertz.
> >>The carrier and the modulation are phase-locked to WWV.
> >>
> >>That gives the ordinary listener a buzzsaw sound which is slightly
> >>larger in spectrum than ordinary CW but much smaller in spectrum than
> >>voice.
> >>
> >>I then key the buzzsaw on and off like ordinary cw, as like 5 WPM.
> >>Sounds terrible, but at least it is CW.
> >>
> >>On the receive side, I'll use a frequency discriminator to detect the

> >>variation in frequency of the carrier, to yield a 100 hertz tone. I
> >>could then borrow a technique from CCW and use the WWV time standard
> >>to phase lock with the incoming tone and thereby increase signal to
> >>noise ratio.
> >>
> >>This gives me the two forms of redundancy with which to enrich the CW
> >>to stretch the range further.
> >>
> >>Questions are: 1) is this feasable? and 2) could this method fall
> >>into the category on allowable modulation methods for HF, with or
> >>without some tweaking?
> >>And 3) if it is feasable, is there anything more I can do to increase
> >>the redundancy for better receivability as a weak signal.
> >>
> >>Many thanks,
> >>
> >>The Eternal Squire
> >
> >
> >
>

1484. Re: Receive NDB beacons ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-04 21:13:57 UTC
From: Dave VanHorn <dvanhorn@cedar.net>
Message-ID: <Ac2dnfgYjocJzIzcRVn-uQ@comcast.com>
Source record: 24265
Cross-posted to: alt.radio.scanner,rec.radio.amateur.homebrew,rec.radio.scanner,sci.electronics.design

> >How would building a receiver cause a problem?
> >
> A homodyne, synchrodyne or super-regen would radiate and give a false
> position.

Could, with bad design, I suppose.

>Other types of receiver would basically be OK, but I would
> ensure that the LO wasn't in-band even so, if the receiver used a tewb
> LO.

I doubt that your couple of milliwatts would outshine the true VOR signal,
especially given the sort of antenna you're likely to be running.
There are already all sorts of accidental emitters in this band, and they
aren't causing any trouble.

1485. Re: Aluminium Foil as basis of tuning capacitors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-04 22:43:55 UTC
From: jgboyles@aol.com
Message-ID: <20040804184355.04176.00001858@mb-m26.aol.com>
Source record: 24266

>Ding-Ding! Ding-Ding!! Ding-Ding!!! Ding-Ding!!!! Ding-Ding!!!!!
>
>Sense-of-humour-failure alarm!!!!!
>

OK, so the questions you ask are simply jokes, I wish you have mentioned that
and I would not have bothered.
73 Gary N4AST

1486. Re: VN88 Fets as linear amp

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-04 23:28:16 UTC
From: Ken Scharf <wa2mzeNOTTHIS@bellsouth.net>
Message-ID: <tieQc.1067$zJ4.980@bignews1.bellsouth.net>
Source record: 24267

Joko wrote:
> On Tue, 03 Aug 2004 18:28:56 -0700, Roy Lewallen <w7el@eznec.com>
> wrote:
>
>
>>Just about all the power FETs have a very large input capacitance (which
>>changes radically during the RF cycle). This makes driving them a real
>>challenge, with the job getting harder as you go up in frequency. I
>>believe there was a series of power FETs designed specifically for RF
>>which have lower capacitance, but they were expensive. I've successfully
>>driven a single IRF511 up to 15 meters in class C with reasonable
>>efficiency by using a complementary-symmetry stage for very low driver
>>output Z. You can find the circuit in _Experimental Methods in RF
>>Design_ (Fig. 2.99), along with some other ways of dealing with power FETs.
>>
>>If you possibly can, run a power FET at 24 or more volts on the drain.
>>Among other benefits, it reduces the drain-gate capacitance which is a
>>major help.
>>
>>Roy Lewallen, W7EL
>
>
> Exactly Ron,
> My limited research has turned up a number of excellent RF power fets
> and application notes for HF linear amplifier use as you mention.
> Problem is they are gawd awfull expensive and hard to source. One does
> not want to fry too many while experimenting. At $1.40 each and with
> impressive specs and the IRF820 looks to be an attractive candidate
> for RF experimenters. I use the IRF510 as a base line for comparison
> since there are several linear designs out there using them up to 28
> mhz. The IRF820 is a newer generation mesh overlay fet with extremely
> fast dv/dt and Td(on), Rt, and Td(off) times comparable to the IRF510.
> It has a higher dissipation of 80w verses 43W for the 510 but a higher
> input capacitance of 315pf verses 180pf for the 510 which may present
> the biggest design challenge for use up to 28mhz. Best of all its a
> 500V FET meaning a high drain voltage can be used reducing the effects
> of gate capacitance change under dynamic conditions. At 170 volts Vdd
> the power supply could simply be rectified mains with no expensive
> transformer or RFI generating switching stuff and the higher impedance
> would make matching to 52ohms easier and more efficient. A 4 fet 300W
> at 170 Vdd amp works out to 48ohms output Z. Yup, its starting to look
> like a tube. The link I posted showed a single IRF820 making 60W SSB
> on 40meters. I think it could do better. A pair, or even two pair in
> push pull at 170 volts Vdd could make some serious RF power. I plan

> to try some in the near future and possibly come up with an amplifier
> design. Even 160, 80, and 40 would be acceptable to me with 20m a
> bonus. I would love to hear what others are trying in this regard.
> I'm registered with QRZ and RAC. A 40 meter home brew net would be
> great.
>
> Best 73, ...- . ...-- . .-.. --.-
www.glitchbuster.com has IRF510's for $0.68 each!
(That's right 68 CENTS).
At that price we can afford to experiment and fry a few.

1487. Re: rich cw for qrpp on hf

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-05 04:24:08 UTC
From: The Eternal Squire <eternalsquire@comcast.net>
Message-ID: <9ZWdnf6MIYj0K4zcRVn-pQ@comcast.com>
Source record: 24268

I don't understand what threshold effect is.

I'm sure everyone saw the FSK/PSK alternative to the analog FM scheme,
what would be the effect of thresholding would be on either alternative?

Giving the system more thought from input by other people, I am
probably leaning toward a repeated FSK/PSK pattern.

I worked out a pattern that shifts both in frequency and phase
at regular intervals:

where each underscore character is one time unit, and each
vertical bar is one frequency unit. Ignore the space in between
the underscore characters.

I drew up some timing diagrams, and I found no less than eight
orthogonal logic conditions by which I could identify the
presence of this pattern in at most 10 time units.

It would seem to me that if the incoming signal satisfied even three
of these measures for any given time unit, I could conclude that that
signal matched the pattern and emit a logic high. That may defeat many
problems introduced by a high noise floor.

That logic high could drive a tone generator to headphones. If each
time unit were 10 milliseconds, then a dit would be easily audible
if the signal satisfied the pattern at 5 out of every 10 time units.

More thoughts anyone?

The Eternal Squire

Rick Karlquist N6RK wrote:
> Like any form of FM, your proposed system will exhibit
> threshold effect. Below threshold, it will be WORSE than
> a carrier detect system. The more you spread out the signal,
> the higher level the threshold effect will occur at.
>
> If you simply apply FM at the transmitter and take it
> off at the receiver, you have an analog spread spectrum
> system. The modulation has no effect on performance,
> or may make it worse due to selective fading.
>
> Rick N6RK

>
>
> "The Eternal Squire" <eternalsquire@comcast.net> wrote in message
> news:GcKdnUDXsoLo743cRVn-jQ@comcast.com...
>
>>Martin,
>>
>>Thanks for the comments. Yes, I do want to build a proof of concept,
>>but I needed help in getting as many people to either poke holes in the
>>theory if possible or suggest improvements.
>>
>>I've gotten opinions back from a few people in private.
>>
>>One of the opinions is that a narrow shifted fm signal varied by 100
>>hertz is not allowed on HF. I think I am describing a form of F1
>>modulation, which certainly is allowed on HF alongside A1 modulation.
>>
>>Even if that person is right, I could work around that by instead
>>alternating with two carriers seperated by 20 hz. Each carrier would
>>be on for 10 milliseconds before switching to the other carrier. It
>>would be a form of FSK containing nothing but clocking information at
>>close to the maximum baud rate allowed on HF. I would then on-off-key
>>the FSK.
>>
>>I can extend this and even alter the duty cycle of shifting between
>>the carriers to contain another form of clocking information.
>>
>>Can you suggest any further improvements or changes?
>>
>>Thanks,
>>
>>The Eternal Squire
>>
>>Martin Potter wrote:
>>
>>>On lots of polar and near-polar ionospheric paths (like Tokyo to Ottawa)
>>>there can be considerable amounts of Doppler shifting and spreading of
>
> the
>
>>>signal, even under "normal" conditions. I regularly see plus/minus 10
>>>hertz of spreading, sometimes asymmetrical. This shifting of the
>
> received
>
>>>carrier freq will add noise to your detection system. And if the fading
>>>rate of the signal approaches your nominal 100 hertz frequency you might
>>>never be able to lock onto the received carrier, even with the WWV
>>>reference.
>>>

>>>But this in on near-polar paths, while transequatorial and ordinary
>
> short
>
>>>paths won't be bothered by this sort of thing except under the most
>
> extreme
>
>>>ionospheric conditions. So it sounds good. Why not build a simple
>
> system
>
>>>and try it, as 'proof of concept'. A real-world experiment is always
>>>better than a theoretical straw-man.
>>>
>>>... Martin VE3OAT
>>>
>>>
>>>The Eternal Squire (eternalsquire@comcast.net) writes:
>>>
>>>
>>>>Hi,
>>>>
>>>>This are some questions to those of you who are experts on modulation
>>>>and information theory, and the related FCC regs for HF. I've done
>>>>preliminary reading on CCW, PSK, and FSK, and so my knowledge about
>>>>the subject is only fair to middling, but I think I might be onto
>>>>something.
>>>>
>>>>What I am interested in doing is creating a CW signal on HF can be
>>>>keyed or copied by the human operator without computers, but that also
>>>>contains enough extra information that simple hardware or even
>>>>computers can pull discern it from noise.
>>>>
>>>>The concept goes something like this:
>>>>
>>>>On the transmit side, I start with a pure carrier. Then I vary it
>>>>sinusoidally from +10 to -10 hertz of center, at a rate of 100 hertz.
>>>>The carrier and the modulation are phase-locked to WWV.
>>>>
>>>>That gives the ordinary listener a buzzsaw sound which is slightly
>>>>larger in spectrum than ordinary CW but much smaller in spectrum than
>>>>voice.
>>>>
>>>>I then key the buzzsaw on and off like ordinary cw, as like 5 WPM.
>>>>Sounds terrible, but at least it is CW.
>>>>
>>>>On the receive side, I'll use a frequency discriminator to detect the
>>>>variation in frequency of the carrier, to yield a 100 hertz tone. I
>>>>could then borrow a technique from CCW and use the WWV time standard

>>>>to phase lock with the incoming tone and thereby increase signal to
>>>>noise ratio.
>>>>
>>>>This gives me the two forms of redundancy with which to enrich the CW
>>>>to stretch the range further.
>>>>
>>>>Questions are: 1) is this feasable? and 2) could this method fall
>>>>into the category on allowable modulation methods for HF, with or
>>>>without some tweaking?
>>>>And 3) if it is feasable, is there anything more I can do to increase
>>>>the redundancy for better receivability as a weak signal.
>>>>
>>>>Many thanks,
>>>>
>>>>The Eternal Squire
>>>
>>>
>>>
>
>

1488. Re: Aluminium Foil as basis of tuning capacitors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-05 09:14:18 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2neh7cF2j0U2@uni-berlin.de>
Source record: 24271

Not really, I think that your attitude is a poor one, for if
we decry any attempts at home construction then we surrender
Ham Radio to the Mongolian Hordes of CBers-Masquerading-As-
Radio-Hams by which I mean those second-class citizens who
buy their complete station from a shop, and even send it back there
for repair when it malfunctions.

It is certainly a most regrettable attitude for a NG whose emphasis
is homebrew.

"JGBOYLES" <jgboyles@aol.com> wrote in message
news:20040804184355.04176.00001858@mb-m26.aol.com...
> >Ding-Ding! Ding-Ding!! Ding-Ding!!! Ding-Ding!!!! Ding-Ding!!!!!
> >
> >Sense-of-humour-failure alarm!!!!!
> >
>
> OK, so the questions you ask are simply jokes, I wish you have mentioned
that
> and I would not have bothered.
> 73 Gary N4AST

1489. Re: Aluminium Foil as basis of tuning capacitors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-05 09:15:01 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2neh7eF2j0U3@uni-berlin.de>
Source record: 24272

Wow!

"Steve Nosko" <suteuve.nosukowicuz@moutouroula.com> wrote in message
news:cer2jjhd1@newshost.mot.com...
> I once made a capacitor from Al foil and the cover of a log book. It was
> the cap for a neon bulb relaxation oscillator. I had an old photo-flash
> 300V battery. Since the foil would be attracted together more as the
> voltage rose, you could hear the tone.
>

1490. Ground Radials - a new look!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-05 09:50:53 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cesvtt$9lk$1@hercules.btinternet.com>
Source record: 24269

NOW AVAILABLE ** New Program "RADIALS2.exe"

This program takes a fresh, revolutionary look at the design and performance of a set of shallow-buried ground radials. Gone at last are the days when 118.5 was a sacred number.

A radial wire is considered as a lossy transmission line, there being no point in having it any longer than that at which its input impedance Zin has converged on its characteristic impedance Zo. The current flowing in the line at that distance from the input end is clearly small enough not to warrant extending the radial any further. With a crude knowledge of the resistivity and permittivity of the soil the greatest practical length of radial wires can be calculated. The number of radials can then be estimated on the logical grounds of economics versus antenna + transmitter radiating efficiency.

Download program RADIALS2, 53 kilobytes, in a few seconds from website below and run immediately.

.....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
.....

1491. Re: Ground Radials - a new look!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-05 10:22:48 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <ef24h0lstpgdgqfvh3o8quhb483gf4ghdc@4ax.com>
Source record: 24270

On Thu, 5 Aug 2004 09:50:53 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>NOW AVAILABLE ** New Program "RADIALS2.exe"
>

When you're not writing these programs, Reg, what mode/band do you
mostly operate on? I'll wager you're an old, dyed-in-the-wool CWer
like m'self. Just curious.
--

"What is now proved was once only imagin'd." - William Blake, 1793.

1492. Re: S - Y Parameter conversion with Smith Chart

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-05 11:19:50 UTC
From: Fred Bloggs <nospam@nospam.com>
Message-ID: <411217CC.1070402@nospam.com>
Source record: 24273
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.antenna,sci.electronics.design

>
> I see in Chris Bowick's book on RF circuit design, he provides 8 quite
> long-winded formulas for converting between S and Y parameters and
> vice-versa. I'm always prone to making careless errors (particularly
> with signs) with these kind of equations, so I was wondering if
> there's a simpler, graphical method for conversion using the Smith
> Chart. After all, that's what it was devised for - the elimination of
> computational errors in such calculations.
> I've tried using the vastly simpler rectangular/polar co-ordinate
> conversion formulas, but they don't plot correctly on the Smith Chart,
> it seems.
> So, does anyone know of a simple graphical way to do it on the SC?

It is possible to design a nomograph for anything- but I'm not going to
waste any time on your behalf because you're a low-life moron...-)

1493. Re: Ground Radials - a new look!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-05 14:10:32 UTC
From: bg998@FreeNet.Carleton.CA
Message-ID: <cetf4o$q1h$1@freenet9.carleton.ca>
Source record: 24274

"Reg Edwards" (g4fgq.regp@ZZZbtinternet.com) writes:
> NOW AVAILABLE ** New Program "RADIALS2.exe"
>

Reg,
"The link can not be saved." I tried many times, to no avail.

... Martin VE3OAT

1494. Re: Receive NDB beacons ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-05 14:31:54 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <cetghaddi1@newshost.mot.com>
Source record: 24276
Cross-posted to: alt.radio.scanner,rec.radio.amateur.homebrew,rec.radio.scanner,sci.electronics.design

"Dave VanHorn" <dvanhorn@cedar.net> wrote in message
news:Ac2dnfgYjocJzIzcRVn-uQ@comcast.com...
> > >How would building a receiver cause a problem?
> > >
> > A homodyne, synchrodyne or super-regen would radiate and give a false
> > position.
>
> Could, with bad design, I suppose.
>
> >Other types of receiver would basically be OK, but I would
> > ensure that the LO wasn't in-band even so, if the receiver used a tewb
> > LO.
>
> I doubt that your couple of milliwatts would outshine the true VOR signal,
> especially given the sort of antenna you're likely to be running.
> There are already all sorts of accidental emitters in this band, and they
> aren't causing any trouble.
>
>

True, but the subject line refers to NDB's not VOR's. Good luck even TRYING
to interfere with an NDB. Even if you do manage 50 or 100 watts and a
decent antenna, nobody's listening. 'ceptin some hams and perhaps a random
pilot who wonders if his ADF is still working. They can always use an AM
station (ADF's tune the AM band) if they can't get an NDB.
--
Steve N, K,9;d, c. i My email has no u's.

1495. Re: rich cw for qrpp on hf

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-05 14:32:45 UTC
From: remove_ok1sip@atlas.cz
Message-ID: <5f5159fa.0408050632.1588a96a@posting.google.com>
Source record: 24275

Hi,
maybe the problem with machine-Morse-reception is our comps are binary-oriented and Morse code is ternary-oriented.
The morse code in fact uses three different symbols: dih, dah, end-of-symbol space. The relative timing of this symbol set should be 1:3:3 (or 1:3:2 ?!), but it may vary with operator skills and the absolute timing values vary with the code speed in wide boundaries. The character lengths is selected so that frequent symbols are short, which enhances the overall speed. It is fully acceptable for our ears, but hard for computers.
The ASCII code uses two symbols: mark, space. Their relative timing is 1:1, the absolute timing is given in steps (300 Bd, 1200 Bd, 9600 Bd, ...) and usually controlled by crystals. All characters have the same length. The start and stop of each character is clearly defined. It is perfect for computers, but hard for our ears, even at some 10 Bd (about 12 WPM). And it is hard to send ASCII on a classic Morse key either.
IMHO the question is to develop a code, which is acceptable both for ears and for computers, not a new sort of modulation. Some sort of Morse-like code, carrying enough internal timing information, with start and stop clearly defined ...

BR from Ivan

1496. Re: rich cw for qrpp on hf

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-05 16:00:49 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <cetlnv$ee1$1@newshost.mot.com>
Source record: 24278

Bottom post.. Heavy on simple explanatins...light on math & theory...I
think.:

"Rick Karlquist N6RK" <richard@karlquist.removethis.com> wrote in message
news:U%aQc.226646$JR4.134059@attbi_s54...
> Like any form of FM, your proposed system will exhibit
> threshold effect. Below threshold, it will be WORSE than
> a carrier detect system. The more you spread out the signal,
> the higher level the threshold effect will occur at.
> [snip spread spectrum talk]
> Rick N6RK
>
> "The Eternal Squire" <eternalsquire@comcast.net> wrote in message
> news:GcKdnUDXsoLo743cRVn-jQ@comcast.com...
> > Martin,
> > ..., I do want to build a proof of concept,
> > but I needed help...if possible or suggest improvements...
> > One of the opinions is that a narrow shifted fm signal varied by 100
> > hertz is not allowed on HF. I think I am describing a form of F1
> > modulation, which certainly is allowed on HF alongside A1 modulation.
> > [snip FM avoiding schemes]
> > Thanks,
> > The Eternal Squire
> >
> > Martin Potter wrote:
> > > On lots of polar and near-polar ionospheric paths (like Tokyo to
Ottawa)
> > > there can be considerable amounts of Doppler shifting and spreading...
> > > I regularly see plus/minus 10
> > > hertz of spreading, sometimes asymmetrical.[snip]
> > > ... Martin VE3OAT
> > >
> > >
> > > The Eternal Squire (eternalsquire@comcast.net) writes:
> > >
> > >>Hi,
> > >>[snip intro]What I am interested in doing is creating a CW signal on
HF can be
> > >>keyed or copied by the human operator without computers, but that also
> > >>contains enough extra information that simple hardware or even
> > >>computers can pull discern it from noise.
> > >>
> > >>...On the transmit side, I start with a pure carrier. Then I vary it
> > >>sinusoidally from +10 to -10 hertz of center, at a rate of 100 hertz.

> > >>The carrier and the modulation are phase-locked to WWV.
> > >>That gives the ordinary listener a buzzsaw sound which is slightly
> > >>larger in spectrum than ordinary CW but much smaller in spectrum than
> > >>voice.
> > >>I then key the buzzsaw on and off like ordinary cw...
> > >>
> > >>On the receive side, I'll use a frequency discriminator to detect the
> > >>variation in frequency of the carrier, to yield a 100 hertz tone. I
> > >>could then borrow a technique from CCW and use the WWV time standard
> > >>to phase lock with the incoming tone and thereby increase signal to
> > >>noise ratio.
> > >>
> > >>This gives me the two forms of redundancy with which to enrich the CW
> > >>to stretch the range further.
> > >>
> > >>Questions are: 1) is this feasable? and 2) could this method fall
> > >>into the category on allowable modulation methods for HF, with or
> > >>without some tweaking?
> > >>And 3) if it is feasable, is there anything more I can do to increase
> > >>the redundancy for better receivability as a weak signal.
> > >>Many thanks,
> > >>The Eternal Squire

First, Rick,
I beg to differ. At this low mod index there'll be no threashold effect. Narrow band FM behaves like AM. I also believe it is true that as the system bandwidth gets *wider* the threshold goes lower, just as does the capture ratio. FM broadcast receivers have capture ratios under a dB. Narrow band FM as we use on 2M are higher.

Now general comments for "Mr. Squire":
I just came on board, so don't know if this has been said. My initial thoughts:
Yes, it would sound like a T6 CW signal.
This signal is (approximately) 200 HZ wide, not 20Hz. (which I believe is your implication)
The 100 Hz FM modulation produces first sidebands at + and - 100 Hz. So it is considerably wider than CW. To receive the 100Hz modulation, you need a 200 Hz wide receiver. Narrow band FM has no advantage over AM...(or CW since it's pretty much the same thing).
The FM modulation index of the proposal is 0.1 making the sidebands quite low in amplitude. Only the first pair is significant being only 5 percent the level of the carrier. Therefore, a vast majority of the transmitted power is still in the carrier.

Index	Sideband level 1st	2nd
0.1	0.050	0.001
0.25	0.124	0.008
0.5	0.242	0.031
1	0.440	0.115

(Done with Excel J1 & J2)

This shows amplitude, so the power in these sidebands is 0.2 percent or
26 dB lower than the carrier (forget if that is both, or each sideband).
I'm not familiar with CCW (don't even know what it is--must assume
synchronous CW), but a method to sync the transmitted signal (both the
on-off keying and the modulation) with WWV can't be simple. This equates to
equipment and why not just get the computer back into the equation.
Then there is the Doppler and slow phase shift of the ionosphere,
mentioned by Martin above. I believe synchronous systems assume the desired
signal will remain relatively un-disturbed in transit. When doing the last
ARRL frequency Measuring Test, I was watching the W1AW CW/Carrier signal
phase shift back & forth on the scope...cool! This is only Illinois to
Conn. You can watch WWV shift as well. Therefore, phase coherence of the
carrier is out of the question. Phase coherence of the modulation will
suffer the same *TIME* shift problems as the carrier and be much less of a
problem, since the frequency is so low...I think. WWVB is more stable, but
you still have to sync both the Tx & Rx and that equates to hardware of some
type be it computer sound card or dedicated logic.

I'm not sure what the desired advantage of the scheme is.... Low signal to
noise performance like PSK-31, but without the computer? The Brain does
that amazingly well...

School's a long way back, but I'm pretty sure an advantage of FM comes
as you go *wider*. As the SYSTEM bandwidth grows, you do, indeed, take-in
more noise, but all these noise components are not correlated with each
other at the receiver - the signal's sidebands are. That is, the sidebands
will all add to the demodulated signal at the receiver, whereas the noise
'does not add' (at least as much).

This, unfortunately sounds like the old April "Micro band FM" concept.
Deviate voice only a HZ or two and fit millions in each band then, by
ordinary receivers, you'll be un-detectable as nothing but a carrier.

Gee, I thought narrow band FM (same width as the "usual" voice signal,
which these days is either SSB or AM) was allowed on HF... Better look over
the latest Part 97.

Digression...
By the Way... A large part of the apparent ability of PSK-31 to operate
"below the noise" is the fact that the receivers we use are much wider than
the signal and, therefore, capture more noise than the detector in the sound
card does. The sound card has a narrower filter (calculation) to achieve
the narrow bandwidth performance. We hear noise the sound card filters
out. This is also why is it bad practice to run more power than needed.
If there is a strong signal near the one you are copying, and within your
receiver filter, it will operate your AGC and reduce receiver gain for all
signals in your bandwidth, including the one you are copying.

OK. lesee what comes of this...
--
Steve N, K,9;d, c. i My email has no u's.

1497. Re: rich cw for qrpp on hf

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-05 16:24:25 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <cetn49elg1@newshost.mot.com>
Source record: 24279

Bottom POST:

"The Eternal Squire" <eternalsquire@comcast.net> wrote in message
news:9ZWdnf6MIYj0K4zcRVn-pQ@comcast.com...
> I don't understand what threshold effect is.
>
> I'm sure everyone saw the FSK/PSK alternative to the analog FM scheme,
> what would be the effect of thresholding would be on either alternative?
>
> Giving the system more thought from input by other people, I am
> probably leaning toward a repeated FSK/PSK pattern.
>
> I worked out a pattern that shifts both in frequency and phase
> at regular intervals:
>
> _ _ _ _ _ _ _ _
> | | | | | | | | | | | |
> |_| |_ _| |_| |_| |_ _| |_|
>
> where each underscore character is one time unit, and each
> vertical bar is one frequency unit. Ignore the space in between
> the underscore characters.
>
> I drew up some timing diagrams, and I found no less than eight
> orthogonal logic conditions by which I could identify the
> presence of this pattern in at most 10 time units.
>
> It would seem to me that if the incoming signal satisfied even three
> of these measures for any given time unit, I could conclude that that
> signal matched the pattern and emit a logic high. That may defeat many
> problems introduced by a high noise floor.
>
> That logic high could drive a tone generator to headphones. If each
> time unit were 10 milliseconds, then a dit would be easily audible
> if the signal satisfied the pattern at 5 out of every 10 time units.
> More thoughts anyone? The Eternal Squire

"Squire",

1st, Threshold is best understood at an intuitive level with the explanation
of the noise in my previous post. Because the noise is not correlated to
produce an output, but the modulation is, the noise does not contribute as
much as the desired sidebands, so as soon as you have enough sideband power
at the receiver that isn't corrupted by the noise, you get signal out. The
less the noise is correlated (the wider the bandwidth) the quicker this

happens as the signal increases out of the noise.

On to your new system:
What you now describe looks almost like PSK31, but somehow coded in Morse rather than the one used for PSK31. If the "warbles" are Morse based, then the CW operator should be able to decode it. It won't be as easy as CW, though. The warbles are pretty subtle.

I see two things in your description.
1 - Is that it is still no better than CW bandwidth wise for the ear and you'll need a very narrow Rx to reap the benefit. In addition, the warbles are much more subtle than on-off keying -- for the ear.
2 You talk about "orthogonal logic conditions", which sounds just like the code used for PSK31, no?? It has codes for each character which are unique and not confused with each other --a.k.a. "orthogonal". So, on the detection side you still need the hardware (read computer sound card) to decode it for your "full" system.
Sounds like you re-invented PSK-31 (which can sort of be decoded by ear). Except, I think there may be a conflict trying to find the PSK patterns which fit within the Morse characters and remain orthogonal.
Hmmmm How about only "processing" this with the sound card to do the narrow band filtering then send it out as audio tones for the final decoding by ear for the last error correction step.

--
Steve N, K,9;d, c. i My email has no u's.

1498. Re: Aluminium Foil as basis of tuning capacitors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-05 17:46:09 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2nfa7nFb05gU1@uni-berlin.de>
Source record: 24280

Ciao, but me no parliamo forrin.
Un tout petit peu de Francais, peut etre,
Sukoshi shika Nihon go..
Loadsa English.
But, sorry, no Italian.

Thanks for the URL, however!

"2n2369" <albamarrNOSPAMM@tiscali.it> wrote in message
news:ceto4f$dp6$2@lacerta.tiscalinet.it...
> you can see here :
> http://www.leradiodisophie.it
> italian site , look at at index since I don't remember just that page
> ciao da 2n2369 italian boy

1499. Re: Handy coax loss calculator

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-05 18:32:09 UTC
From: Scott M <spamkiller@elp.rr.com>
Message-ID: <J2vQc.418$KZ2.93@fe2.texas.rr.com>
Source record: 24281

I sent an email to the site's owner and he said he would add RG-8, RG-8X,
and RG-8/U to the menu.

"Terry" <tsanford@nf.sympatico.ca> wrote in message
news:RT6Pc.2910$Vm1.30445@news20.bellglobal.com...
>
> "Gregg" <nospam@unknown.org> wrote in message
> news:690Pc.9546$cd2.63@clgrps12...
> > Behold, John Miles signalled from keyed 4-1000A filament:
> >
> > > Maybe I'm the last one to run across this, but...
> > >
> > > http://www.timesmicrowave.com/cgi-bin/calculate.pl
> >
> > Thanks John!
> >
> > I'm an "online calculator" junkie and I didn't have this one ;-)
> >
> > --
> > Gregg t3h g33k
> > "Ratings are for transistors....tubes have guidelines"
> > http://geek.scorpiorising.ca
>
> Many thanks for posting the link. same here all these 'calculators' get
one
> thinking!
> It doesn't, however, mention RG-8?
> I wanted to compare the difference, at around 160 mHz (marine VHF),
between
> retaining existing RG-58 or replacing with RG-8, for the approx 40 feet
from
> top of our sail boat mast to the VHF transceiver. So I used RG-213?
instead.
> Difference about 1 dB. Or approx 20%. probably not really worth while?
> Terry.
>
>

Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.733 / Virus Database: 487 - Release Date: 8/3/2004

1500. Schematic and routing programmes

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-05 19:33:39 UTC
From: "Michael (Tabaliah)" <me@privacy.net>
Message-ID: <nYvQc.17293$J06.1412@pd7tw2no>
Source record: 24283

Hi;

Does anyone have a recommendation for shareware/freeware schematic and pc layout programmes? Particularly something that goes together to help or auto-route from the schematic programme - and produce a Gerber plot file. I've been out of it for a long time (last time I used schematic software it was Futurenet on an IBM PC). I have a few circuits that I would like to get on PC boards at this time. Thanks ever so much.

Michael VE7YXX, VE7AQS
Abbotsford BC

1501. Re: Receive NDB beacons ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-05 19:33:53 UTC
From: Steve Robertson <ke4oh@yahoo.com>
Message-ID: <41128BA0.D5D2DB25@yahoo.com>
Source record: 24282
Cross-posted to: alt.radio.scanner,rec.radio.amateur.homebrew,rec.radio.scanner,sci.electronics.design

Still plenty of pilots who use NDBs to do instrument landing approaches. Especially at rural airports. GPS is all the rage now, but many rural airports don't have a published GPS approach yet. And, an FAA "approved" GPS is very expensive (roughly $4k installed and certified), so many aircraft owners don't have one yet.

73,

Steve KE4OH - N4732J 1967 Beechcraft Musketeer

Steve Nosko wrote:

> "Dave VanHorn" <dvanhorn@cedar.net> wrote in message
> news:Ac2dnfgYjocJzIzcRVn-uQ@comcast.com...
> > > >How would building a receiver cause a problem?
> > > >
> > > A homodyne, synchrodyne or super-regen would radiate and give a false
> > > position.
> >
> > Could, with bad design, I suppose.
> >
> > >Other types of receiver would basically be OK, but I would
> > > ensure that the LO wasn't in-band even so, if the receiver used a tewb
> > > LO.
> >
> > I doubt that your couple of milliwatts would outshine the true VOR signal,
> > especially given the sort of antenna you're likely to be running.
> > There are already all sorts of accidental emitters in this band, and they
> > aren't causing any trouble.
> >
> >
>
> True, but the subject line refers to NDB's not VOR's. Good luck even TRYING
> to interfere with an NDB. Even if you do manage 50 or 100 watts and a
> decent antenna, nobody's listening. 'ceptin some hams and perhaps a random
> pilot who wonders if his ADF is still working. They can always use an AM
> station (ADF's tune the AM band) if they can't get an NDB.
> --
> Steve N, K,9;d, c. i My email has no u's.

1502. Re: Schematic and routing programmes

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-05 19:40:10 UTC
From: dplatt@radagast.org
Message-ID: <10h538qqkn0jde3@corp.supernews.com>
Source record: 24284

In article <nYvQc.17293$J06.1412@pd7tw2no>,
Michael \(Tabaliah\) <me@privacy.net> wrote:
>Hi;
>
>Does anyone have a recommendation for shareware/freeware schematic and pc
>layout programmes? Particularly something that goes together to help or
>auto-route from the schematic programme - and produce a Gerber plot file.
>I've been out of it for a long time (last time I used schematic software it
>was Futurenet on an IBM PC). I have a few circuits that I would like to get
>on PC boards at this time. Thanks ever so much.

http://www.cadsoft.de/ - they have a freeware version which works
quite well for boards of moderate size and complexity. Schematic
entry, board layout, autorouter, Gerber and PostScript and HPGL
output, and it runs under either Windows or Linux.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

1503. Re: rich cw for qrpp on hf

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-05 19:59:09 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <ceu3mr$h25$1@newshost.mot.com>
Source record: 24288

"OK1SIP" <remove_ok1sip@atlas.cz> wrote in message
news:5f5159fa.0408050632.1588a96a@posting.google.com...
> Hi,
> maybe the problem with machine-Morse-reception is our comps are
> binary-oriented and Morse code is ternary-oriented.
> The morse code in fact uses three different symbols: dih, dah,
> end-of-symbol space. The relative timing of this symbol set should be
> 1:3:3 (or 1:3:2 ?!), but it may vary with operator skills and the
> absolute timing values vary with the code speed in wide boundaries.
> The character lengths is selected so that frequent symbols are short,
> which enhances the overall speed. It is fully acceptable for our ears,
> but hard for computers.
> The ASCII code uses two symbols: mark, space. Their relative timing is
> 1:1, the absolute timing is given in steps (300 Bd, 1200 Bd, 9600 Bd,
> ...) and usually controlled by crystals. All characters have the same
> length. The start and stop of each character is clearly defined. It is
> perfect for computers, but hard for our ears, even at some 10 Bd
> (about 12 WPM). And it is hard to send ASCII on a classic Morse key
> either.
> IMHO the question is to develop a code, which is acceptable both for
> ears and for computers, not a new sort of modulation. Some sort of
> Morse-like code, carrying enough internal timing information, with
> start and stop clearly defined ...
>
> BR from Ivan

Hi Ivan,
This is a side issue, but the binaty vs. 'ternary' (? tertiary ?) is
not a problem as far as the computer is concerned. In the computer, the
dah, or dash is no different from three short lengths (baud) together which
happens in ASCII. Morse can be viewed as groups of the basic dot time, just
as is ASCII.
For CW decoding programs, this is an algorithm issue. How the
programmer chooses to decode the CW. As I was watching CWGet, I could see
that a dash which was shortened by fading, but still longer than a dot, was
decoded as a dot. A more intelligent algorithm would do better. The
computer can also be programmed to look for and adjust for irregularities in
the CW speed (and are auto speed already) and, to some extent, variations in
the "fist".
I believe the OP is trying to find a way to improve upon CW in low
signal to noise conditions. I believe is will be a long time before the
brain is rivaled. Anyone _know_ differently?
--
Steve N, K,9;d, c. i My email has no u's.

1504. The Best Low Power AM Transmitter?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-05 20:23:20 UTC
From: capndan <danburleson@yahoo.com>
Message-ID: <ceu4vo$u19@odak26.prod.google.com>
Source record: 24285

What is THE BEST LPAM Transmitter available on the market?

Also, what are good antenna designs to keep indoors in an attic?
And finally...What about solar-powered repeater stations?

1505. Solar-Powered Repeater Stations

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-05 20:31:14 UTC
From: capndan <danburleson@yahoo.com>
Message-ID: <ceu5ei$ltb@odah37.prod.google.com>
Source record: 24286

I am not, NOT mind you, an electronic whiz. In fact, I'm just starting to get into this hobby/phenom. But it occured to me...why not set up solar powered REPEATER STATIONS at 1/2 mile intervals around my base LPAM transmitter. Wouldn't that effectively enable me to cover about 5 square miles with a mini-am signal-network? Solar powered panels atop a small box that has both a receiver board and transmitter and re-transmits the signal coming from my base station. About the size of a pack of cigs I would figure. Heck, I could just tie-wrap them inconspicously around a tree branch here and there. Just a thought. There's got to be a way.
I'm a 'retired' radio dj. I was on the air for the better part of 20 years and I am excited at the possibility of doing a radio show from my home on, say AM1700. Why not?

1506. VIETNAM ROCK is ON-THE-AIR!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-05 20:35:46 UTC
From: capndan <danburleson@yahoo.com>
Message-ID: <ceu5n2$sgg@odbk17.prod.google.com>
Source record: 24287

I'm running this internet "radio station" called 'VIETNAM ROCK' right now. It's getting quite a bit of attention and I'm having alot of fun doing it. Problem is, I know I'm just "pretending" to do a show on the internet. It's not real broadcasting. Maybe I could re-broadcast my Live365 station on my LPAM mini-network?

Listen Live: http://geocities.com/danburleson/vietnamrock.htm

Or, here's a :30 second audio sample of VIETNAM ROCK:
http://geocities.com/danburleson/vr_edited_ccr.mp3
I'd be interested in your comments.

Thanks!

1507. Re: Ground Radials - a new look!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-05 22:00:25 UTC
From: Eamon Skelton <Xnospam@oceanfree.net>
Message-ID: <p8nau1-ab1.ln1@skelton.news.cis.dfn.ed>
Source record: 24289

Martin Potter wrote:
> "Reg Edwards" (g4fgq.regp@ZZZbtinternet.com) writes:
>
>>NOW AVAILABLE ** New Program "RADIALS2.exe"
>>
>
>
> Reg,
> "The link can not be saved." I tried many times, to no avail.
>
> ... Martin VE3OAT
>
>
>

It is the URL for his web-site. It works fine from here.
The program is at:
http://www.btinternet.com/~g4fgq.regp/radials2.exe

73, Ed. EI9GQ.

--
Remove 'X' to reply by E-mail.
Linux 2.6.7

1508. Re: VIETNAM ROCK is ON-THE-AIR!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-06 00:10:22 UTC
From: klf <240dl@jl.com>
Message-ID: <O%zQc.479$Ce1.173@newsfe5-gui.ntli.net>
Source record: 24290

Well at least you admit you're running a webstream. I think you should substitute your internet connection for a nice transmitter. You're far better running a transmitter as no one listens to Internet Webstreams - there are far too many of them. So unless it stands out you will be lost amongst all the teenage wannabe bedroom broadcasters!

"capndan" <danburleson@yahoo.com> wrote in message news:ceu5n2$sgg@odbk17.prod.google.com...
> I'm running this internet "radio station" called 'VIETNAM ROCK' right
> now. It's getting quite a bit of attention and I'm having alot of fun
> doing it. Problem is, I know I'm just "pretending" to do a show on the
> internet. It's not real broadcasting. Maybe I could re-broadcast my
> Live365 station on my LPAM mini-network?
>
> Listen Live: http://geocities.com/danburleson/vietnamrock.htm
>
> Or, here's a :30 second audio sample of VIETNAM ROCK:
> http://geocities.com/danburleson/vr_edited_ccr.mp3
> I'd be interested in your comments.
>
> Thanks!
>

Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.734 / Virus Database: 488 - Release Date: 05/08/2004

1509. Re: rich cw for qrpp on hf

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-06 03:28:50 UTC
From: The Eternal Squire <eternalsquire@comcast.net>
Message-ID: <-YidneGSWMJpZ4_cRVn-ug@comcast.com>
Source record: 24291

Steve,

Evidently I've confused a few people as well as yourself.

1) The frequency shift keying contains no intelligence, only clocking
along a time axis.

2) The phase shift keying contains no intelligence, only clocking
along the phase axis.

3) The audio tones being shifted contain no intelligence, only
clocking along the amplitude axis.

The pattern below describes the shifting between tones A and B

```
Phi-0 Phi1-1
| |
_ _ v_ _v Tone A ^
| | | | | | Frequency clocking.
|_| |_ _| |_| Tone B v
```

Note the phase directions at Phi-0 and Phi-1, each is the reverse
of the other.

Now, suppose the time unit is 10 millisecond. If I've done my job right
and can correctly detect the pattern to exist at each time
unit that the pattern travels through a special detector, and assuming
that our logic high from the detector runs a beeper, the human ear
should hear a solid beep for the 80 millisecond that the pattern
travels through the detector.

* * * * * * * *

Let's emit this pattern for just a couple time units longer:

```
_ _ _ _ _ _
| | | | | | Frequency clocking.
|_| |_ _| |_| Tone B v
```

so that we can hear a solid beep for 100 millisecond

* * * * * * * * * *

Now you can humor me and imagine a contracted time scale, where
a plus represents ten stars, this is also 100 millisecond.

+

and if we continue the pattern for 2000 millisecond, we can hear
a solid beep for that period of time.

+ + + + + + + + + + + + + + + + + + + +

So we now have the equivalent of an unbroken carrier. Suppose
we turn off our pattern emitter, our detector fails to lock
onto the carrier, and so we hear silence for those periods.

+ + + + + + + + + + + + + + +

And so we get the Morse letter K !!!

So, the pattern itself would be heard as morse code which
sounds like a buzzsaw on an ordinary receiver, at the
usual distance range.

If we place a special detector after the audio in an
ordinary receiver, the morse would be heard as a pure
tone from a greater distance without benefit of computer.

If we place a computer after the audio in an ordinary
receiver, then the morse would be heard at a greater
distance than can normally be detected by a computer.

Make more sense?

Steve Nosko wrote:
> Bottom POST:
>
> "The Eternal Squire" <eternalsquire@comcast.net> wrote in message
> news:9ZWdnf6MIYj0K4zcRVn-pQ@comcast.com...
>
>>I don't understand what threshold effect is.
>>
>>I'm sure everyone saw the FSK/PSK alternative to the analog FM scheme,
>>what would be the effect of thresholding would be on either alternative?
>>
>>Giving the system more thought from input by other people, I am
>>probably leaning toward a repeated FSK/PSK pattern.
>>
>>I worked out a pattern that shifts both in frequency and phase
>>at regular intervals:
>>
>> _ _ _ _ _ _ _ _
>> | | | | | | | | | | | |
>> |_| |_ _| |_| |_| |_ _| |_|
>>
>>where each underscore character is one time unit, and each
>>vertical bar is one frequency unit. Ignore the space in between
>>the underscore characters.
>>
>>I drew up some timing diagrams, and I found no less than eight
>>orthogonal logic conditions by which I could identify the

>>presence of this pattern in at most 10 time units.
>>
>>It would seem to me that if the incoming signal satisfied even three
>>of these measures for any given time unit, I could conclude that that
>>signal matched the pattern and emit a logic high. That may defeat many
>>problems introduced by a high noise floor.
>>
>>That logic high could drive a tone generator to headphones. If each
>>time unit were 10 milliseconds, then a dit would be easily audible
>>if the signal satisfied the pattern at 5 out of every 10 time units.
>>More thoughts anyone? The Eternal Squire
>
>
> "Squire",
>
> 1st, Threshold is best understood at an intuitive level with the explanation
> of the noise in my previous post. Because the noise is not correlated to
> produce an output, but the modulation is, the noise does not contribute as
> much as the desired sidebands, so as soon as you have enough sideband power
> at the receiver that isn't corrupted by the noise, you get signal out. The
> less the noise is correlated (the wider the bandwidth) the quicker this
> happens as the signal increases out of the noise.
>
> On to your new system:
> What you now describe looks almost like PSK31, but somehow coded in Morse
> rather than the one used for PSK31. If the "warbles" are Morse based, then
> the CW operator should be able to decode it. It won't be as easy as CW,
> though. The warbles are pretty subtle.
>
> I see two things in your description.
> 1 - Is that it is still no better than CW bandwidth wise for the ear and
> you'll need a very narrow Rx to reap the benefit. In addition, the warbles
> are much more subtle than on-off keying -- for the ear.
> 2 You talk about "orthogonal logic conditions", which sounds just like the
> code used for PSK31, no?? It has codes for each character which are unique
> and not confused with each other --a.k.a. "orthogonal". So, on the
> detection side you still need the hardware (read computer sound card) to
> decode it for your "full" system.
> Sounds like you re-invented PSK-31 (which can sort of be decoded by
> ear). Except, I think there may be a conflict trying to find the PSK
> patterns which fit within the Morse characters and remain orthogonal.
> Hmmmm How about only "processing" this with the sound card to do the
> narrow band filtering then send it out as audio tones for the final decoding
> by ear for the last error correction step.
>

1510. Re: Schematic and routing programmes

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-06 05:53:13 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <d1FQc.50146$T_6.10985@edtnps89>
Source record: 24292

Behold, Michael \(Tabaliah\) signalled from keyed 4-1000A filament:

> Michael VE7YXX, VE7AQS
> Abbotsford BC

Howdy neighbor! (I just moved from McKenzie & Marshall)

OT: How'd you luck-out with VE7YXX?????????

73's

--
Gregg t3h g33k
"Ratings are for transistors....tubes have guidelines"
http://geek.scorpiorising.ca

1511. Re: The Best Low Power AM Transmitter?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-06 05:54:19 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <f2FQc.50151$T_6.14399@edtnps89>
Source record: 24293

Honestly, the tube jobbies at Antique Electronic Supply.

Everything else is plain theft for what they give you.

--
Gregg t3h g33k
"Ratings are for transistors....tubes have guidelines"
http://geek.scorpiorising.ca

1512. Re: Solar-Powered Repeater Stations

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-06 05:57:10 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <W4FQc.50193$T_6.26115@edtnps89>
Source record: 24294

Excellent info:

news://alt.radio.pirate
news://alt.pirate.radio
http://www.frn.net/ace

Even though "Part 15" isn't technically pirate, LPAM and LPFM and DJ's are most welcomed there.

--
Gregg t3h g33k
"Ratings are for transistors....tubes have guidelines"
http://geek.scorpiorising.ca

1513. Re: Schematic and routing programmes

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-06 07:36:23 UTC
From: "Michael (Tabaliah)" <me@privacy.net>
Message-ID: <XxGQc.26412$M95.3434@pd7tw1no>
Source record: 24295

"Gregg" <nospam@unknown.org> wrote in message
news:d1FQc.50146$T_6.10985@edtnps89...
> OT: How'd you luck-out with VE7YXX?????????

I actually asked for it and they gave it to me. The VE7AQS was a bit more complicated - they gave it to me by accident and I got stuck with it.

Michael (VE7YXX, VE7AQS) @rac.ca or @arrl.net
Abbotsford BC

1514. Re: Solar-Powered Repeater Stations

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-06 08:49:48 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2ngv7pFpiq9U2@uni-berlin.de>
Source record: 24296

Perhaps making believe that others are listening to you
is a minor variation on sitting in the bog with a box of
tissues and a magazine full of pictures of nude women;
or buying your station off-the-shelf and pretending that
you're a Radio Ham?

"capndan" <danburleson@yahoo.com> wrote in message
news:ceu5ei$ltb@odah37.prod.google.com...
> I am not, NOT mind you, an electronic whiz. In fact, I'm just starting
> to get into this hobby/phenom. But it occured to me...why not set up
> solar powered REPEATER STATIONS at 1/2 mile intervals around my base
> LPAM transmitter. Wouldn't that effectively enable me to cover about 5
> square miles with a mini-am signal-network? Solar powered panels atop
> a small box that has both a receiver board and transmitter and
> re-transmits the signal coming from my base station. About the size of
> a pack of cigs I would figure. Heck, I could just tie-wrap them
> inconspicously around a tree branch here and there. Just a thought.
> There's got to be a way.
> I'm a 'retired' radio dj. I was on the air for the better part of 20
> years and I am excited at the possibility of doing a radio show from my
> home on, say AM1700. Why not?

1515. Re: Ground Radials - a new look!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-06 13:30:32 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cf015o$kr8$1@hercules.btinternet.com>
Source record: 24197

```
> When you're not writing these programs, Reg, what mode/band do you
> mostly operate on? I'll wager you're an old, dyed-in-the-wool CWer
> like m'self. Just curious.
> --
============================
50% SSB. 50% CW.
Favourite band 160m.
But been practically inactive for last 18 months.
Conversation either too tiring or too boring.
Can't keep up with old standards.
But software can be thought about prior to production, put aside for a short
while and checked for accuracy before distribution.
---
Reg.
```

1516. Re: Ground Radials - a new look!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-06 14:00:15 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cf02te$rq3$1@titan.btinternet.com>
Source record: 24198

> Reg,
> "The link can not be saved." I tried many times, to no avail.
>
> ... Martin VE3OAT
>
==========

There was a bug in the HTML code when I posted the program up to my website.
And I forgot to check the program was down-loadable before advertising the
fact in newsgroups that it was available. Very remiss of me.

The bug was use of an upercase character in the program's name. I typed
"Radials2" instead of "radials2".

It took me 3 hours to find out precisely where the problem lay during which
time there were several hundred disappointed attempts to download the
program. I feel very guilty!

But for a private e-mail from a kind expert who diagnosed the problem I and
the customers, 24 hours later, would still have been thrashing about in the
dark.

Reg, G4FGQ

1517. Re: Handy coax loss calculator

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-06 14:59:48 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <cf06hkrfe1@newshost.mot.com>
Source record: 24199

"Scott M" <spamkiller@elp.rr.com> wrote in message
news:J2vQc.418$KZ2.93@fe2.texas.rr.com...
> I sent an email to the site's owner and he said he would add RG-8, RG-8X,
> and RG-8/U to the menu.
>
> "Terry" <tsanford@nf.sympatico.ca> wrote in message
> news:RT6Pc.2910$Vm1.30445@news20.bellglobal.com...
> >
> > "Gregg" <nospam@unknown.org> wrote in message
> > news:690Pc.9546$cd2.63@clgrps12...
> > > Behold, John Miles signalled from keyed 4-1000A filament:
> > >
> > > > Maybe I'm the last one to run across this, but...
> > > >
> > > > http://www.timesmicrowave.com/cgi-bin/calculate.pl
> > >

Just remember that since the RG stuff is no longer in vogue
(controlled), there can be lots of variation from manuf to manuf.
--
Steve N, K,9;d, c. i My email has no u's.

1518. Re: rich cw for qrpp on hf

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-06 16:08:31 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <cf0aie$s4r$1@newshost.mot.com>
Source record: 24201

Eternal, Top posting 'cuz U R.

No, I think I had it in the first place, or at least, was close. It's just difficult to express in few words. Lets see if I have it...

Although you don't say it, I thought that this "pattern" of phase shifts is not simply alternating phase shifts at regular intervals, but a definite pattern with some of the times between shifts being, lets say, twice as long, or 20ms. This pattern is what is unique and what your (so called "non computer") detector will be looking for to generate a "beep" (what you symbolize with the *) to be listened to, right?

I got this from your:

> ... I found no less than eight
> >>orthogonal logic conditions by which I could identify the
> >>presence of this pattern in at most 10 time units...

Assuming you have a basic understanding of PSK31, what I think you are proposing can be described in terms of PSK31. What if we simply use ONLY ONE letter of PSK-31. However, we send it over and over. This gives your detector something to recognize to ake the audio * beep for the listener. If is doesn't see that specific _pattern_, it won't make the * beep.

Then just key the whole thing on & off just like ordinary CW.

I don't have the code here, so I'll make something up and say we use a pattern of phase shifts like this:

_ _ _ __ Phase "A"

|||||||
||_||__||__||_ Phase "B"

Looking just at the Phase A part for simplicity, we have "short, short, pause, short, pause, long". If we did this correctly, we will not falsely decode this if we slip just one time slot in a longer string of these patterns. We must be in "bit sync". That is, the receiver system (not the ear-listening-to-the-audio-out-of-the-receiver), must "know" where we are in this pattern at all times.

This gives us 11 times or 110 ms. [[we need to set the timing so you can get one or more of the patterns into one Morse dot, but I'll ignore that for this discussion]]

Let's say this is a Morse DOT. String three of these together to get a dash - which will be 330 ms long. Sounds like pretty slow code, but in principle, this is what I thought you meant.

In reality, if this was a truly synchronous system, the pattern could actually be a truly pseudo-random pattern which doesn't repeat in such a short time, but may be seconds long. If we provide some "key-down" time at the start for the receiver to find its place in the pattern, and achieve "bit sync" this would also "work".

To firm up understanding, I compare this to the following "tone detector" system. Assume we have, for the moment, returned to ordinary CW. Tune your receiver for an 800 HZ tone and build an 800 Hz tone-detector. Use the output of this tone-detector to Key an audio oscillator to produce a "* beep" which you can listen to and copy the CW with.

What I have for your Phase shift system, simply replaces the CW with this PSK pattern and the tone-detector with a "phase shift pattern detector".

This is certainly "a way", but the problem of the modulation sidebands is still there. The ear will hear a T6 Morse signal, but your demodulator system still needs considerable computing (or calculating) power if using "circuitry" of some kind.

In my previous post, I mentioned the calculations for FM not PM, but the result has to be similar. The filtering used to define your phase shift transition times will determine the modulation index and therefore the bandwidth. 100 Hz modulation is 100Hz modulation and the sidebands need to be there at the demodulator to demodulate the waveform and the receiver will still require a 200Hz bandwidth. It will also have to be something rivaling a computer to sync up and detect the pattern so it can properly "know" when it is present and when it is absent and make the beep for the "enhanced system" CW operator.

So it seems to me that you have a 200HZ CW system and that can't be better than the standard 10HZ or whatever it is---not to mention the ability of the ear-brain to pull CW out of the noise. The *ORIGINAL* DSP, no?.

Make sense?

73,
--
Steve N, K,9;d, c. i My email has no u's.

P.S. U got a real name?

"The Eternal Squire" <eternalsquire@comcast.net> wrote in message news:-YidneGSWMJpZ4_cRVn-ug@comcast.com...
> Steve,
>
> Evidently I've confused a few people as well as yourself.
>
> 1) The frequency shift keying contains no intelligence, only clocking
> along a time axis.
>
> 2) The phase shift keying contains no intelligence, only clocking
> along the phase axis.

>
> 3) The audio tones being shifted contain no intelligence, only
> clocking along the amplitude axis.
>
> The pattern below describes the shifting between tones A and B
>
> Phi-0 Phi1-1
> | |
> _ _ v_ _v Tone A ^
> | | | | | | | Frequency clocking.
> |_| |_ _| |_| Tone B v
>
> Note the phase directions at Phi-0 and Phi-1, each is the reverse
> of the other.
>
> Now, suppose the time unit is 10 millisecond. If I've done my job right
> and can correctly detect the pattern to exist at each time
> unit that the pattern travels through a special detector, and assuming
> that our logic high from the detector runs a beeper, the human ear
> should hear a solid beep for the 80 millisecond that the pattern
> travels through the detector.
>
> * * * * * * * *
>
> Let's emit this pattern for just a couple time units longer:
>
> _ _ _ _ _ _
> | | | | | | | Frequency clocking.
> |_| |_ _| |_| Tone B v
>
> so that we can hear a solid beep for 100 millisecond
>
> * * * * * * * * * *
>
> Now you can humor me and imagine a contracted time scale, where
> a plus represents ten stars, this is also 100 millisecond.
>
> +
>
> and if we continue the pattern for 2000 millisecond, we can hear
> a solid beep for that period of time.
>
> +
>
> So we now have the equivalent of an unbroken carrier. Suppose
> we turn off our pattern emitter, our detector fails to lock
> onto the carrier, and so we hear silence for those periods.
>
> + + + + + + + + + + + + + +
>

> And so we get the Morse letter K !!!
>
>
> So, the pattern itself would be heard as morse code which
> sounds like a buzzsaw on an ordinary receiver, at the
> usual distance range.
>
> If we place a special detector after the audio in an
> ordinary receiver, the morse would be heard as a pure
> tone from a greater distance without benefit of computer.
>
> If we place a computer after the audio in an ordinary
> receiver, then the morse would be heard at a greater
> distance than can normally be detected by a computer.
>
> Make more sense?
>
>
>
>
>
>
>
>
>
>
> Steve Nosko wrote:
> > Bottom POST:
> >
> > "The Eternal Squire" <eternalsquire@comcast.net> wrote in message
> > news:9ZWdnf6MIYj0K4zcRVn-pQ@comcast.com...
> >
> >>I don't understand what threshold effect is.
> >>
> >>I'm sure everyone saw the FSK/PSK alternative to the analog FM scheme,
> >>what would be the effect of thresholding would be on either alternative?
> >>
> >>Giving the system more thought from input by other people, I am
> >>probably leaning toward a repeated FSK/PSK pattern.
> >>
> >>I worked out a pattern that shifts both in frequency and phase
> >>at regular intervals:
> >>
> >> _ _ _ _ _ _ _ _
> >> | | | | | | | | | | |
> >> |_| |_ _| |_| |_| |_ _| |_|
> >>
> >>where each underscore character is one time unit, and each
> >>vertical bar is one frequency unit. Ignore the space in between
> >>the underscore characters.

> >>
> >>I drew up some timing diagrams, and I found no less than eight
> >>orthogonal logic conditions by which I could identify the
> >>presence of this pattern in at most 10 time units.
> >>
> >>It would seem to me that if the incoming signal satisfied even three
> >>of these measures for any given time unit, I could conclude that that
> >>signal matched the pattern and emit a logic high. That may defeat many
> >>problems introduced by a high noise floor.
> >>
> >>That logic high could drive a tone generator to headphones. If each
> >>time unit were 10 milliseconds, then a dit would be easily audible
> >>if the signal satisfied the pattern at 5 out of every 10 time units.
> >>More thoughts anyone? The Eternal Squire
> >
> >
> > "Squire",
> >
> > 1st, Threshold is best understood at an intuitive level with the
explanation
> > of the noise in my previous post. Because the noise is not correlated
to
> > produce an output, but the modulation is, the noise does not contribute
as
> > much as the desired sidebands, so as soon as you have enough sideband
power
> > at the receiver that isn't corrupted by the noise, you get signal out.
The
> > less the noise is correlated (the wider the bandwidth) the quicker this
> > happens as the signal increases out of the noise.
> >
> > On to your new system:
> > What you now describe looks almost like PSK31, but somehow coded in
Morse
> > rather than the one used for PSK31. If the "warbles" are Morse based,
then
> > the CW operator should be able to decode it. It won't be as easy as CW,
> > though. The warbles are pretty subtle.
> >
> > I see two things in your description.
> > 1 - Is that it is still no better than CW bandwidth wise for the ear and
> > you'll need a very narrow Rx to reap the benefit. In addition, the
warbles
> > are much more subtle than on-off keying -- for the ear.
> > 2 You talk about "orthogonal logic conditions", which sounds just like
the
> > code used for PSK31, no?? It has codes for each character which are
unique
> > and not confused with each other --a.k.a. "orthogonal". So, on the
> > detection side you still need the hardware (read computer sound card) to

> > decode it for your "full" system.
> > Sounds like you re-invented PSK-31 (which can sort of be decoded by
> > ear). Except, I think there may be a conflict trying to find the PSK
> > patterns which fit within the Morse characters and remain orthogonal.
> > Hmmmm How about only "processing" this with the sound card to do
the
> > narrow band filtering then send it out as audio tones for the final
decoding
> > by ear for the last error correction step.
> >
>

1519. Re: VN88 Fets as linear amp

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-06 16:45:17 UTC
From: clifto <clifto@clifto.com>
Message-ID: <t5pcu1-jt1.ln1@remote.clifto.com>
Source record: 24200

Alan Peake wrote:
> Thanks for that. I'm only using VN88s because I had some - there are no
> nearby RF FET shops here :)

Maybe they'll open an RF FETs 'R' Us soon?

Seriously, it seems to be getting worse, at least around here. The Active Electronics store that opened a few years ago is now closed, and one of the big distributors in the area abruptly disappeared (not the building, but apparently all of its contents and employees). That leaves a new Fry's, which doesn't seem to be much for semiconductors, and one old dependable TV parts distributor 50 miles from here... and, of course, a few places with $50 minimum orders who don't seem to like cash or checks.

--
To his numbed, buttock-shifting listeners, the great sonorous self-regarding orotund bromidic banality of Senator Kerry and his multitude of nuances is proof of how much more serious he - and therefore they - are.
<http://www.telegraph.co.uk/opinion/main.jhtml?xml=/opinion/2004/08/01/do0102.xml&sSheet=/opinion/2004/08/01/ixop.html>

1520. Re: rich cw for qrpp on hf

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-06 16:56:17 UTC
From: JLB <IHateSpam@nospam.net>
Message-ID: <OKOQc.4242$Nd7.1178@fe39.usenetserver.com>
Source record: 24202

>
> If we place a special detector after the audio in an
> ordinary receiver, the morse would be heard as a pure
> tone from a greater distance without benefit of computer.
>

This is called a product detector. It has been around for several decades now and involves a mixer and an oscillator at close to the same frequency as the receiver IF (say, 800 Hz off), the oscillator being called a Beat Frequency Oscillator (BFO). Usually it is placed before the audio stages, however. By the way, with the mixer/BFO scheme you can do away with the buzz saw signal and it will still work just fine.

> If we place a computer after the audio in an ordinary
> receiver, then the morse would be heard at a greater
> distance than can normally be detected by a computer.
>

But not at as great a distance as a human ear! Besides, distance has nothing to do with it. Instead it is the ratio of signal to noise at the receiver output.

--
Jim
N8EE

to email directly, send to my call sign at arrl dot net

1521. Re: VN88 Fets as linear amp

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-06 18:31:19 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <MPG.1b7d6e54f5c1c984989700@news-central.giganews.com>
Source record: 24203

In article <t5pcu1-jt1.ln1@remote.clifto.com>, clifto@clifto.com says...
> Alan Peake wrote:
> > Thanks for that. I'm only using VN88s because I had some - there are no
> > nearby RF FET shops here :)
>
> Maybe they'll open an RF FETs 'R' Us soon?
>
> Seriously, it seems to be getting worse, at least around here. The Active
> Electronics store that opened a few years ago is now closed, and one of
> the big distributors in the area abruptly disappeared (not the building,
> but apparently all of its contents and employees). That leaves a new
> Fry's, which doesn't seem to be much for semiconductors, and one old
> dependable TV parts distributor 50 miles from here... and, of course,
> a few places with $50 minimum orders who don't seem to like cash or
> checks.
>

Don't forget Alphatronics in Southcenter (or Supertronics, or whatever
they're calling themselves these days). Whenever I go to Fry's, I
usually end up need to go by there for something Fry's didn't have, and
vice versa.

Fry's actually does pretty well in the semiconductor department if you
don't mind using NTE crossrefs for everything. They are better at
stocking semiconductors than, say, resistors.

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

1522. Re: rich cw for qrpp on hf

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-06 19:08:51 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <cf0l4ijt1@newshost.mot.com>
Source record: 24204

"JLB" <IHateSpam@nospam.net> wrote in message
news:OKOQc.4242$Nd7.1178@fe39.usenetserver.com...
> >
> > Eternal says:
> > If we place a special detector after the audio...
>
> and Responds:
> This is called a product detector....

Hi JLB,
Me thinkth that Eternal was trying to describe something that detects his special phase modulated 'code' rather than just mix the carrier down to audio. I'm not sure, but I think the idea was that it should be possible to detect the "narrow", phase modulated signal at lower S/N due to the reduced bandwidth. I have been trying to determine the basis for his thoughts in my posts... Waiting for his response.

> > If...then the morse would be heard at a greater
> > distance than can normally be detected by a computer.
> >
>
> But not at as great a distance as a human ear! > Jim
> N8EE

I'm of that opinion, as well. The ear-brain is a wonderful CW signal processor. Quite amazing.
--
Steve N, K,9;d, c. i My email has no u's.

1523. Re: Solar-Powered Repeater Stations

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-06 19:41:16 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <cf0n1b$110$1@newshost.mot.com>
Source record: 24205

"capndan" <danburleson@yahoo.com> wrote in message
news:ceu5ei$ltb@odah37.prod.google.com...
> I am not, NOT mind you, an electronic whiz. ...
> solar powered REPEATER STATIONS at 1/2 mile intervals around my base
> LPAM transmitter. ...cover about 5 square miles....
> a...About the size of
> a pack of cigs...tie-wrap them inconspicously around a tree branch...
> There's got to be a way.
> I'm a 'retired' radio dj.

OK. the answer is yes, this is "possible".

Here's my take...

HOWEVER, to do it, requires you to *become* a whiz, so to speak...

IF you want to stay legal, what frequency will you use TO your repeaters @
said 1/2 mile distance? That's quite a distance for part 15 stuff.

Then:
I wouldn't expect to get 1/2 mile (for pickup on an ordinary AM radio) on
the AM band with something the size of a deck of cards. If you were a DJ,
I'm sure you remember those large antennas used on AM. There's a reason. I
believe the biggest problem for the LPAM transmission is getting energy into
the air. The guy across the 3/4 mile wide lake from me is trying to do it
legally and in no way can I pick up even a hint of his carrier with my 40M
dipole, much less listen in on am AN radio.
If you string lots of wire between the trees, perhaps you can get somewhere
with lots of these & lots of wire. However, I believe there's the antenna
size limits, as I recall.

Then there's the batteries & solar cells. All I can say is Yep, just shell
out the $$, but you'll be outside your size by far. Then mounting solar
cells around the neighborhood is tricky - not _IN_ the trees, for sure. I
don't know the power limits off hand, but you'll need batteries (who's
listening daytime?) for night time.

In the 60's one of the fellas got several miles (just barely) with 50 watts
and a long wire - strictly outside the law.

If the FCC doesn't scare you, then all bets are off.

Finally, I'd ask, who listens to AM anymore? All I hear is Sports
stations, Spanish and News radio 78 in the Chi town far burbs. Of course
there's the odd crystal set folks. Are you thinking that nam vets will
listen? Maybe I should tune in to your web-cast to see what you offer, but
I don't listen anymore...

OK that wasn't final... The suggestion for the Web resources is good,
HOWEVER, there are both "Legal" type groups and then there's the pirates.
As we used to say in Boy Scout camp:
Clean mind, clean body.

Take your pick.

'gards, Steve N, K,9;d,c.i My email has no u's.
PS. I got...er...um...I mean, that is, I hear that someone, somewhere got around a mile and a half, maybe two with a 1/2 watt on FM., 104.7, and a 5/8 vertical @ 35 ft. Great fun, two carts, call-ins, swiped commercials, but it was always a phone tree when we were on...er... um, I mean, that is, when whomever they were, were supposedly on.
73.

1524. Re: rich cw for qrpp on hf

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-06 21:54:46 UTC
From: JLB <IHateSpam@nospam.net>
Message-ID: <C6TQc.5297$Nd7.1592@fe39.usenetserver.com>
Source record: 24206

Well, he said that he wanted it to be useable by people in third world countries that do not have computers. Most likely they would have a typical receiver with a bandwidth of 250 to 500 Hz, maybe up to 3 kHz, with a BFO and product detector. In this case, the narrow shift/phase deviation would be lost in the noise anyway.

Methinks one should study wheel theory first, before trying to invent a new one, don't you agree?

Jim

1525. Re: Ground Radials - a new look!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-06 22:03:02 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <krv7h09tap37l2njk0drqtc469s3kmq5fi@4ax.com>
Source record: 24207

On Fri, 6 Aug 2004 13:30:32 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>> When you're not writing these programs, Reg, what mode/band do you
>> mostly operate on? I'll wager you're an old, dyed-in-the-wool CWer
>> like m'self. Just curious.
>> --
>==========================
>50% SSB. 50% CW.
>Favourite band 160m.

Hmmm. You must have a *large* back garden! I don't bother with phone
at all and haven't for some 20 years or so (croak too much). C-dubya
hits the spot for me. Good luck to you anyway, Reg and keep it up!
--

"What is now proved was once only imagin'd." - William Blake, 1793.

1526. Re: Ground Radials - a new look!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-07 00:16:01 UTC
From: bg998@FreeNet.Carleton.CA
Message-ID: <cf1701qvs1@freenet9.carleton.ca>
Source record: 24208

"Reg Edwards" (g4fgq.regp@ZZZbtinternet.com) writes:
> There was a bug in the HTML code when I posted the program up to my website.
> And I forgot to check the program was down-loadable before advertising the
> fact in newsgroups that it was available. Very remiss of me.
>

No problem, Reg. I checked again the next day and you had obviously fixed
the link so I downloaded the program and spent some time playing with it,
using one of my own antennas as an example. Very nice program and there
are "some antenna improvements" for me to make here HI.

Thanks again for your good work. You are an asset to us all. More power
to you!

73,
... Martin VE3OAT

1527. Re: Solar-Powered Repeater Stations

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-07 01:18:42 UTC
From: Uncle Peter <radioconnectionNO@cox.netSPAM>
Message-ID: <94WQc.25101$Jo1.20719@lakeread01>
Source record: 24209

"Steve Nosko" <suteuve.nosukowicuz@moutouroula.com> wrote in message
news:cf0n1b$110$1@newshost.mot.com...
>
> > Then:
> I wouldn't expect to get 1/2 mile (for pickup on an ordinary AM radio) on
> the AM band with something the size of a deck of cards. If you were a DJ,
> I'm sure you remember those large antennas used on AM. There's a reason.
I
> believe the biggest problem for the LPAM transmission is getting energy
into
> the air.

Keeping within the 10 foot antenna limitations, you can easily achieve
distances
of over I mile coverage on frequencies above 1600 kHz. Check the Radio Free
Allston (Boston, MA microbroadcaster on 1630 kHz) webpages.
They are covering a large area of the Allston Brighton area of Boston,
and have gained some recognition for their public service orientated
programming.
I've copied them at distances over 2 miles when leaving Boston on the Mass
Turnpike.

The SSTran website (www.sstran.com) shows how to build a fairly decent
antenna for their part 15 AM transmitter.

Pete
>

1528. Re: The Best Low Power AM Transmitter?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-07 01:19:41 UTC
From: Uncle Peter <radioconnectionNO@cox.netSPAM>
Message-ID: <55WQc.25102$Jo1.15687@lakeread01>
Source record: 24210

"Gregg" <nospam@unknown.org> wrote in message
news:f2FQc.50151$T_6.14399@edtnps89...
> Honestly, the tube jobbies at Antique Electronic Supply.
>
> Everything else is plain theft for what they give you.
>

Absolute RUBBISH. About the worst example of an AM transmitter that
I can imagine.

Pete

1529. Re: rich cw for qrpp on hf

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-07 05:20:40 UTC
From: The Eternal Squire <eternalsquire@comcast.net>
Message-ID: <AL-dnbj-RMU1-4ncRVn-gA@comcast.com>
Source record: 24211

Steve,

Yeah, I think we agree, I am attempting to send and receive manual CW over something resembling a PSK transport layer, that reads as T6 manual CW to the unassisted ear.

I had read about the advantages of PSK-31 and I wanted to see if I could somehow adopt some of those advantages to manual CW with the assistance of simplified dedicated circuitry.

I know that CCW was the precursor to PSK-31 but that it fell out of favor due to the need to make it "perfect CW", to synchronize the dot as the smallest time unit, so that it was effectively a real PITA to use by operators.

Still, the ability of CCW or PSK-31 to effectively borrow received signal strength from a broadcasted time standard, by synchronizing the dot against the standard, is a tactic worth stealing.

It seems to me that if I could build a dot out of a series of smaller time units that were synchronized with a standard, then I would have the flexibility of manual keying and also inherit the advantages of CCW or PSK-31.

What I someone to explain to me, is the math foundation behind the enhanced received signal strength of CCW or PSK-31 over conventional OOK of a simple carrier. I do understand, in rough terms, about how my modulation index might be excessive, but maybe if my modulation index is the same as PSK-31's I can keep the enhanced received signal strength advantage?

I still remember integral calculus, my understanding of differential equations was never too good but parts are till in my head, but unfortunately we never covered modulation indexes or power spectrums in my graduate signals and systems course. It was all transfer functions and laplacian transforms at that time.

I'm a bit better at discrete math, symbolic logic, digital design, and I write engineering tools software for a living. From my hobby at home I am just beginning to make up for all my C's and D's in analog circuit design, and LTSpice is a great help there.

If you can explain whether my approach might work or won't work to me in mild engineering math I might have a half a chance feeling comfortable in either going forward or abandoning it.

There's nothing holy about the 10 ms time unit, I just used that for purposes of illustration.

Now, as far as the dedicated receive circuitry, I have in mind the following:

1) Filtered tones A and B come into respective frequency comparator circuitry that compares the incoming tones against reference tones A-prime and B-prime. The frequency comparator emits a logic high when the comparator matches a tone against its tone-prime.

2) The output of each frequency comparator is sent through respective digital smoothing circuitry to make up for intermittent dropouts due to fading on each tone.

The logic level output of the frequency comparator is fed into a 10-bit shift register clocked 10 times faster than our original time unit, or 1 ms. The output bits of the shift register are fed into an 10-bit input to 1-bit output EPROM.

The smoother EPROM pattern is such that a logic high will result when at least 8 out of any 10 bits coming from the shift register are high.

3) The output of each smoother is fed through respective digital sampling circuitry.

The sampler circuit is simply another 10-bit shift register, this time clocked at the original time unit.

4) There are now 10 bits coming from sampler A, and 10 bits coming from sampler B. The outputs of the samplers are combined by feeding all 20 bits into a 20-bit input to 1 bit output EPROM.

The decoder EPROM pattern is such that a logic high will result when a fraction, say half, of those 8 orthogonal measures I spoke of in an earlier email hold true for the duration of the original time unit of 10 ms.

I can easily work out all the possible patterns of 20-bits that would hold true using an exhaustive search on a computer.

(So yes, I do have to use computer power like you said, but fortunately, I only have use it once for decoding a single PSK-type character that will never change.)

5) The output of the decoder EPROM is sent into the beeper or buzzer of your choice.

Does this make sense?

The Eternal Squire

(P.S.. yes, I have a name and a ham call, but I prefer my privacy. I'll be happy to give them to you over private correspondence. However, since I want to get as many signal theory elmers into this as I can

to hopefully either invalidate or bullet-proof the theory before I
start building and testing, I hope you don't mind taking part in a
public discussion).

Steve Nosko wrote:

> Eternal, Top posting 'cuz U R.
>
>
>
> No, I think I had it in the first place, or at least, was close. It's
> just difficult to express in few words. Lets see if I have it...
>
>
>
> Although you don't say it, I thought that this "pattern" of phase shifts
> is not simply alternating phase shifts at regular intervals, but a definite
> pattern with some of the times between shifts being, lets say, twice as
> long, or 20ms. This pattern is what is unique and what your (so called "non
> computer") detector will be looking for to generate a "beep" (what you
> symbolize with the *) to be listened to, right?
>
>
>
> I got this from your:
>
>
>> ... I found no less than eight
>>
>>>>orthogonal logic conditions by which I could identify the
>>>>presence of this pattern in at most 10 time units...
>
>
>
>
> Assuming you have a basic understanding of PSK31, what I think you are
> proposing can be described in terms of PSK31. What if we simply use ONLY
> ONE letter of PSK-31. However, we send it over and over. This gives your
> detector something to recognize to ake the audio * beep for the listener.
> If is doesn't see that specific _pattern_, it won't make the * beep.
>
> Then just key the whole thing on & off just like ordinary CW.
>
>
>
> I don't have the code here, so I'll make something up and say we use a
> pattern of phase shifts like this:
>
>
>
> _ _ _ __ Phase "A"

>
> | | | | | | | |
> | |_| |__| |__| |ï¿½_ Phase "B"
>
>
>
> Looking just at the Phase A part for simplicity, we have "short, short,
> pause, short, pause, long". If we did this correctly, we will not falsely
> decode this if we slip just one time slot in a longer string of these
> patterns. We must be in "bit sync". That is, the receiver system (not the
> ear-listening-to-the-audio-out-of-the-receiver), must "know" where we are in
> this pattern at all times.
>
>
>
> This gives us 11 times or 110 ms. [[we need to set the timing so you can
> get one or more of the patterns into one Morse dot, but I'll ignore that for
> this discussion]]
>
>
>
>
>
> Let's say this is a Morse DOT. String three of these together to get a
> dash - which will be 330 ms long. Sounds like pretty slow code, but in
> principle, this is what I thought you meant.
>
>
>
> In reality, if this was a truly synchronous system, the pattern could
> actually be a truly pseudo-random pattern which doesn't repeat in such a
> short time, but may be seconds long. If we provide some "key-down" time at
> the start for the receiver to find its place in the pattern, and achieve
> "bit sync" this would also "work".
>
>
>
> To firm up understanding, I compare this to the following "tone
> detector" system. Assume we have, for the moment, returned to ordinary CW.
> Tune your receiver for an 800 HZ tone and build an 800 Hz tone-detector.
> Use the output of this tone-detector to Key an audio oscillator to produce a
> "* beep" which you can listen to and copy the CW with.
>
> What I have for your Phase shift system, simply replaces the CW with
> this PSK pattern and the tone-detector with a "phase shift pattern
> detector".
>
>
>
> This is certainly "a way", but the problem of the modulation sidebands

> is still there. The ear will hear a T6 Morse signal, but your demodulator
> system still needs considerable computing (or calculating) power if using
> "circuitry" of some kind.
>
> In my previous post, I mentioned the calculations for FM not PM, but the
> result has to be similar. The filtering used to define your phase shift
> transition times will determine the modulation index and therefore the
> bandwidth. 100 Hz modulation is 100Hz modulation and the sidebands need to
> be there at the demodulator to demodulate the waveform and the receiver will
> still require a 200Hz bandwidth. It will also have to be something rivaling
> a computer to sync up and detect the pattern so it can properly "know" when
> it is present and when it is absent and make the beep for the "enhanced
> system" CW operator.
>
> So it seems to me that you have a 200HZ CW system and that can't be
> better than the standard 10HZ or whatever it is---not to mention the ability
> of the ear-brain to pull CW out of the noise. The *ORIGINAL* DSP, no?.
>
>
>
> Make sense?
>
> 73,

1530. Re: Screw threads and spring in Vibroplex?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-07 05:29:55 UTC
From: Lynn Coffelt <coffelt2@comcast.net>
Message-ID: <mNZQc.102794$eM2.28587@attbi_s51>
Source record: 24213

"Airy R. Bean" <me@privacy.net> wrote in message
news:2nbtdsFuvb5pU1@uni-berlin.de...
> I wonder what the standard screw threads in a Vibroplex
> are, bearing in mind its genesis of 100 years ago?
>
> I imagine that it wouldn't be BA, as this was a Britland standard.
>
> I've sorted through the junk box for this project and have located
> a gert lump of black-rolled steel for the base, and quite a few offcuts of
> brass for all the bits.
>
> What metal is the Vibroplex pendulum made from? I've got a piece of
> thin brass which might do the job.

Well, my Vibroplex, a J-36 WWII surplus model uses mostly SAE 8-32 and 6-32 (some call those "NF" threads) for the hardware. The pendulum spring material of choice was once an inch or two length of clock spring..... the mainspring from a "Big Ben" alarm clock was about right. Trouble was attaching the ends of the spring to anything without destroying the spring itself. The factory model had holes in the spring and rivets were used to attach both ends of the spring. Two rivets on each end. Another source of spring material, once common, not so common anymore (to me, at least) is corset springs. The most radical of the corsets had pretty skookum springs.

W7LTQ

1531. Re: Screw threads and spring in Vibroplex?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-07 11:01:01 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2njrqkF1k93mU2@uni-berlin.de>
Source record: 24214

Two approaches spring to mind...

1. Using the ubiquitous "Dremel" styled miniature
grinding wheels, grind fixing holes in the spring.

2. Using gas flame and water bath, first soften for
drilling, then harden and temper to Blue/purple colour.

"Lynn Coffelt" <coffelt2@comcast.net> wrote in message
news:mNZQc.102794$eM2.28587@attbi_s51...
>..... Trouble was
> attaching the ends of the spring to anything without destroying the spring
> itself.

1532. PICCOLO 2M FM Transc. - 12.5Kc/s upgrade

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-07 12:13:33 UTC
From: MARK WALLER <xad64@dial.pipex.com>
Message-ID: <4114C76D.91B@dial.pipex.com>
Source record: 24212

Can anybody give information or pointer(s) on how to modify the
subject transceiver for 12.5Kc/s spacing?

Thanks!
Mark (G8EIG)

1533. Motorla RF module info?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-07 15:42:11 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <ott9h0h6u15hb651c0k58irltorqvcgs7j@4ax.com>
Source record: 24215

Hi guys,

I bought an MX2-02 module from e-bay the other day and can't seem to find any data for it on the net. All I know is that it's for 432Mhz; 200mW in; 30W out and it has a total of 6 pins in two groups of three at each end. Anyone know any details on this module? Even the pin-outs would be something!

Thanks,

P.
--

"What is now proved was once only imagin'd." - William Blake, 1793.

1534. Measuring transitor impedances

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-07 15:50:14 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <pbu9h099vbom0emqqtrenkvq525silb7n8@4ax.com>
Source record: 24216

Hi chaps,

Is there a way of determining what basically amounts to S-parameters
for BJTs without resorting to a hard-to-get VNA? Some way of doing the
job just with the more usual test equipment you have around?
(scope/sig-gen etc.)

p.
--

"What is now proved was once only imagin'd." - William Blake, 1793.

1535. Re: Motorla RF module info?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-07 18:34:52 UTC
From: mugwoump <invalid@yahsnoos.com>
Message-ID: <2nklm7F1sav5U2@uni-berlin.de>
Source record: 24217

What does it look like, got the ebay#?

"Paul Burridge" <pb@notthisbit.osiris1.co.uk> wrote in message
news:ott9h0h6u15hb651c0k58irltorqvcgs7j@4ax.com...
> Hi guys,
>
> I bought an MX2-02 module from e-bay the other day and can't seem to
> find any data for it on the net. All I know is that it's for 432Mhz;
> 200mW in; 30W out and it has a total of 6 pins in two groups of three
> at each end. Anyone know any details on this module? Even the pin-outs
> would be something!
>
> Thanks,
>
> P.
> --
>
> "What is now proved was once only imagin'd." - William Blake, 1793.

1536. Re: rich cw for qrpp on hf (don't need the math after all!)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-07 20:22:51 UTC
From: The Eternal Squire <eternalsquire@comcast.net>
Message-ID: <AIOdnRM66buBp4jcRVn-gw@comcast.com>
Source record: 24218

Steve,

Okay, I don't need the math after all. I surfed and finally found some theory foundation regarding PSK-31:

http://www.arrl.org/tis/info/pdf/x9907003.pdf
http://www.arrl.org/tis/info/pdf/59941.pdf

Reading these, I can finally agree with you that BPSK is a better transport layer than the phase-coded, synchronized FSK I was considering. Since it is self-clocking, I would not even need a seperate clock station like WWV or WWVB.

Reading what you have been telling me about character selection, it seems that sound the tone whenever I detect the shortest Variode sequence possible, the space character, followed by a single idle code.

The space character is a simple 1, and a single idle code would be a pair of zeroes.

That way the absence of my sequence should squelch the PSK software on your end, or its equivalent in my dedicated decoder hardware. Squelch would form the space between tones.

I can still use a pair of shift registers and an EPROM to detect the difference between the minimal pattern and squelch.

Better?

The Eternal Squire

1537. Re: looking for information on toroidal cores

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-07 21:35:20 UTC
From: averyfineman@aol.com
Message-ID: <20040807173520.19264.00000084@mb-m24.aol.com>
Source record: 24219

In article <lpuNc.1$8Qp.0@news04.bloor.is.net.cable.rogers.com>, "larry"
<larya@rogers.com> writes:

>Greetings
>
>I am looking for information on toroidal cores...
>
>I grew up in electronics and amateur radio during the 60's and 70's. Now I
>am retired and need more information concerning toroidal cores....
>
>I have a bunch of cores and would like to know how they compare with open
>form coils etc.
>
>Is there a website that teaches you about toroidal cores. How to identify
>them how to calculate how much wire to wrap for a partical inductance value.
>Etc...

For a comprehensive design program on toroidal core inductors,
go to:

http://www.micrometals.com/software_index.html

and choose a "low frequency" version for power inductors
(Micro_vMar20.exe ~812K) or a "DC to 300 MHz" version for
RF inductors (Toroid.zip ~400K). Free downloads.

Micrometals has been in the iron powder core business for three
decades plus and the information on their website as well as their
famous "Q Book" is accurate, reproducible.

The "Amidon" toroid cores sold to radio amateurs for years in
small quantities through various stores comes from Micrometals.
Their nomenclature comes from Micrometals.

A toroidal core keeps the magnetic field IN the torus (doughnut
shape) and is much less influenced by nearby conductors or even
dielectric material. They are slightly harder to wind than the
solenoidal type (have to do threading through the center hole) but
that becomes easy with slight practice. I've used Micrometals
cores for over three decades with success, both in small prototype
quantities and in large production lots.

The Toroid.zip package is good for determining number of turns and
layers for RF inductors as well as showing the effect of various iron
powder types ("mixes"). If you don't know the mix of the powder in
your cores, you can get a good handle on them by winding
according to the computer programs and measuring the inductance

(by whatever other means you have...I would recommend the AADE
L/C Meter for those who don't have access to a Q Meter).

Pardon the delay to an old thread. Catching up after HD change.
I just checked the Micrometals website and they are current.

LenAnderson@ieee.com

1538. Re: Motorla RF module info?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-07 23:54:10 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <vrqah01rvo4ucbvn0c84j19f19m64429hm@4ax.com>
Source record: 24220

On Sat, 7 Aug 2004 13:34:52 -0500, "mugwoump" <invalid@yahsnoos.com>
wrote:

>What does it look like, got the ebay#?

Here's an identical one:

http://cgi.ebay.co.uk/ws/eBayISAPI.dll?ViewItem&rd=1&item=3828844021&ssPageName=STRK:MEDW:
IT
--

"What is now proved was once only imagin'd." - William Blake, 1793.

1539. Re: Motorla RF module info?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-08 05:33:09 UTC
From: Rex <me@hutmail.invalid>
Message-ID: <v2ebh0pf21utervp0b4vfnqnnbguttdl94@4ax.com>
Source record: 24221

On Sun, 08 Aug 2004 00:54:10 +0100, Paul Burridge
<pb@notthisbit.osiris1.co.uk> wrote:

>On Sat, 7 Aug 2004 13:34:52 -0500, "mugwoump" <invalid@yahsnoos.com>
>wrote:
>
>>What does it look like, got the ebay#?
>
>Here's an identical one:
>
>http://cgi.ebay.co.uk/ws/eBayISAPI.dll?ViewItem&rd=1&item=3828844021&ssPageName=STRK:MEDW
:IT

Found it in my old data books. Pretty simple.

MX20-2 440-470 MHz 20W
3 stages of amplification. 50 ohm, Min Gain 21 dB

Pin 1 RF In (max 150mW)
pin 2 gnd
pin 3 Vcc1

pin 4 Vcc2
pin 5 gnd
pin 6 RF Out

Vcc 1&2 typically 12.5V, Max 15.6

Vcc1 feeds first 2 stages
Vcc2 final

Test setup shows inductor in series with Vcc and bypass caps at the
device. I can't see anything in datasheet about which end is pin 1, but
it is symetrical, so if you get it backwards, you should just have no
gain.

1540. Sinadder schematic

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-08 07:46:54 UTC
From: J <jmort@despammed.com>
Message-ID: <cf5um5$7rm$1@news7.svr.pol.co.uk>
Source record: 24233

I am interested in making a Sinadder meter.
If anyone has a schematic could I ask for a scan please.

Thanks

1541. Re: Motorla RF module info?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-08 10:57:40 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <kj1ch0h87hv1p3hgfrlso4jlouhe3e4f62@4ax.com>
Source record: 24222

On Sun, 08 Aug 2004 05:33:09 GMT, Rex <me@hutmail.invalid> wrote:

>On Sun, 08 Aug 2004 00:54:10 +0100, Paul Burridge
><pb@notthisbit.osiris1.co.uk> wrote:
>
>>On Sat, 7 Aug 2004 13:34:52 -0500, "mugwoump" <invalid@yahsnoos.com>
>>wrote:
>>
>>>What does it look like, got the ebay#?
>>
>>Here's an identical one:
>>
>>http://cgi.ebay.co.uk/ws/eBayISAPI.dll?ViewItem&rd=1&item=3828844021&ssPageName=STRK:MED
W:IT
>
>
>
>Found it in my old data books. Pretty simple.

Excellent work, Rex. Thanks very much indeed. I'm a bit pissed off
about the Pout, though. It was advertised as 30W, not 20 as it
actually appears now to be. :-(
It came wrapped in anti-static stuff but surely there's no need to
worry about static with this type of device? I can't imagine it would
have anything other than BJTs in it. :-|
--

"What is now proved was once only imagin'd." - William Blake, 1793.

1542. Re: Measuring transitor impedances

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-08 13:10:56 UTC
From: Willy <f4uiu_nospam@wanadoo.fr>
Message-ID: <cf58oc$n0q$1@news-reader2.wanadoo.fr>
Source record: 24224

"Paul Burridge" <pb@notthisbit.osiris1.co.uk> a crit dans le
message de news:pbu9h099vbom0emqqtrenkvq525silb7n8@4ax.com...
> Hi chaps,
>
> Is there a way of determining what basically amounts to
S-parameters
> for BJTs without resorting to a hard-to-get VNA? Some way of
doing the
> job just with the more usual test equipment you have around?
> (scope/sig-gen etc.)
>
> p.
> --
>
> "What is now proved was once only imagin'd." - William Blake,
1793.
You can use a Vector Voltmeter like the HP8405A (up to 1300 MHz),
and a signal generator. The test will be done on a single
frequency but the 8405 support some low manually sweep of the
frequency to cover the bandwith you test.
A 8405 can be found at cheap prices and is cheapest than a VNA.

1543. WTB: Heath 104 knobs, black

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-08 13:31:20 UTC
From: k9sqg@aol.com
Message-ID: <20040808093120.03945.00000954@mb-m17.aol.com>
Source record: 24225

Looking for some black knobs, not green, as used for the Heath 104 line, later models. Trying to help out a friend.

73s,

Evan

1544. Re: Motorla RF module info?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-08 13:56:13 UTC
From: Highland Ham <abgm0csz.kn6whyz@ntlworld.com>
Message-ID: <1iqRc.214$zc6.71@newsfe4-gui.ntli.net>
Source record: 24223

> Excellent work, Rex. Thanks very much indeed. I'm a bit pissed off
> about the Pout, though. It was advertised as 30W, not 20 as it
> actually appears now to be. :-(
> It came wrapped in anti-static stuff but surely there's no need to
> worry about static with this type of device? I can't imagine it would
> have anything other than BJTs in it. :-|
==========
20 W instead of 30 W means 1.8 dB less .....a fraction of an S-point
Would be surprising if any rx would sense the difference.
Enjoy the use of that module ,Paul .

Frank GM0CSZ / KN6WH

1545. Re: Motorla RF module info?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-08 14:27:30 UTC
From: Allodoxaphobia <bit-bucket@config.com>
Message-ID: <slrnchce2i.1s5p.bit-bucket@shell.config.com>
Source record: 24226

On Sun, 08 Aug 2004 13:56:13 GMT, Highland Ham hath writ:
>> Excellent work, Rex. Thanks very much indeed. I'm a bit pissed off
>> about the Pout, though. It was advertised as 30W, not 20 as it
>> actually appears now to be. :-(
>> It came wrapped in anti-static stuff but surely there's no need to
>> worry about static with this type of device? I can't imagine it would
>> have anything other than BJTs in it. :-|
>=======================================
> 20 W instead of 30 W means 1.8 dB less .....a fraction of an S-point
> Would be surprising if any rx would sense the difference.
> Enjoy the use of that module ,Paul .

Has anybody tried lashing these little RF bricks up in push-pull?
I've got a handful of SAV-7's and it's always been an interesting
thought "exercise".

73
Jonesy
--
| Marvin L Jones | jonz | W3DHJ | linux
| Gunnison, Colorado | @ | Jonesy | OS/2 __
| 7,703' -- 2,345m | config.com | DM68mn SK

1546. Re: Motorla RF module info?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-08 14:46:47 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <56fch0pf3roa0ab1r77k1ufjq850npkq9r@4ax.com>
Source record: 24227

On 8 Aug 2004 14:27:30 GMT, Allodoxaphobia <bit-bucket@config.com>
wrote:

>Has anybody tried lashing these little RF bricks up in push-pull?
>I've got a handful of SAV-7's and it's always been an interesting
>thought "exercise".

Good point. I'd be interested, too.
--

"What is now proved was once only imagin'd." - William Blake, 1793.

1547. Re: rich cw for qrpp on hf (don't need the math from you after all!)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-08 16:48:24 UTC
From: The Eternal Squire <eternalsquire@comcast.net>
Message-ID: <2_2dnUI53uPFxIvcRVn-jQ@comcast.com>
Source record: 24228

Steve,

Okay, I don't need the math after all. I surfed and finally found some theory foundation regarding PSK-31:

http://www.arrl.org/tis/info/pdf/x9907003.pdf
http://www.arrl.org/tis/info/pdf/59941.pdf

Reading these, I can finally agree with you that BPSK is a better transport layer than the phase-coded, synchronized FSK I was considering. Since it is self-clocking, I would not even need a seperate clock station like WWV or WWVB.

Reading what you have been telling me about character selection, it seems that sound the tone whenever I detect the shortest Variode sequence possible, the space character, followed by a single idle code.

The space character is a simple 1, and a single idle code would be a pair of zeroes.

That way the absence of my sequence should squelch the PSK software on your end, or its equivalent in my dedicated decoder hardware. Squelch would form the space between tones.

I can still use a pair of shift registers and an EPROM to detect the difference between the minimal pattern and squelch.

Better?

The Eternal Squire

JLB wrote:
> Well, he said that he wanted it to be useable by people in third world
> countries that do not have computers. Most likely they would have a typical
> receiver with a bandwidth of 250 to 500 Hz, maybe up to 3 kHz, with a BFO
> and product detector. In this case, the narrow shift/phase deviation would
> be lost in the noise anyway.
>
> Methinks one should study wheel theory first, before trying to invent a new
> one, don't you agree?
>
> Jim
>
>
>

1548. Re: Fascinating LORAN article in N&V

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-08 17:38:28 UTC
From: - XC - <nobody@home.net>
Message-ID: <T7WdndsdJLiL-IvcRVn-gg@comcast.com>
Source record: 24229

"John Walton" <jdwalton@comcast.net> wrote in message
news:7s2dnZAXqN6mVpHcRVn-tw@comcast.com...
> This month's issue has a fascinating description of the last "tube" LORAN
> transmitter -- which just went SK -- the cooling chamber for the final PA
is
> about the size of my basement! It's been replaced by solid-state.
>
>

1549. Re: Fascinating LORAN article in N&V

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-08 17:40:37 UTC
From: - XC - <nobody@home.net>
Message-ID: <0YednXC4q7EK-IvcRVn-uA@comcast.com>
Source record: 24230

Ooops, hit send too quickly before.
What/where is N&V???

"John Walton" <jdwalton@comcast.net> wrote in message
news:7s2dnZAXqN6mVpHcRVn-tw@comcast.com...
> This month's issue has a fascinating description of the last "tube" LORAN
> transmitter -- which just went SK -- the cooling chamber for the final PA
is
> about the size of my basement! It's been replaced by solid-state.
>
>

1550. Re: Motorla RF module info?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-08 19:05:04 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <t9uch0d0hng3fgl8uuj6jto9v77ang90cv@4ax.com>
Source record: 24231

On Sun, 08 Aug 2004 15:46:47 +0100, Paul Burridge
<pb@notthisbit.osiris1.co.uk> wrote:

>On 8 Aug 2004 14:27:30 GMT, Allodoxaphobia <bit-bucket@config.com>
>wrote:
>
>>Has anybody tried lashing these little RF bricks up in push-pull?
>>I've got a handful of SAV-7's and it's always been an interesting
>>thought "exercise".
>
>Good point. I'd be interested, too.

to make it complicated?

J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

1551. Re: Motorla RF module info?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-08 19:11:54 UTC
From: Ralph Mowery <rmowery28146@earthlink.net>
Message-ID: <_VuRc.7668$nx2.60@newsread2.news.atl.earthlink.net>
Source record: 24232

> Has anybody tried lashing these little RF bricks up in push-pull?
> I've got a handful of SAV-7's and it's always been an interesting
> thought "exercise".

I have never tried but you may want to hook them up using a Wilkerson type circuit. Feed them by using a 1/4 wave line on the input and output and a 100 ohm resistor . At 2 meters and up this should be easy to do.

1552. Re: FS: tubes, a LOT of tubes

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-08 20:19:36 UTC
From: The Eternal Squire <eternalsquire@comcast.net>
Message-ID: <GoOdnWj9QfNEF4vcRVn-rw@comcast.com>
Source record: 24234
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.homebrew

Gregg,

1500 to 2000 tubes for $35? Really? May I buy some from you?
I need battery portable radio tubes, 1a? - 1z?, to build some
retro transciever gear.

Thanks,

The Eternal Squire

Gregg wrote:
> How many groups did you crosspost this to? Spammer!
>
> $300? F*ck you!
>
> I buy lots of 1,500 to 2,000 tubes for $35 CAD *including* the "high
> value" ones.
>
> Don't bother replying - I replied only to warn others of your thievery!
>
> Plonked and killfiled!!
>

1553. Re: Sinadder schematic

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-08 20:26:44 UTC
From: "L." <FFSTA17NO@SPAMACCESS995.COM>
Message-ID: <k0wRc.550$191.23@newsread1.dllstx09.us.to.verio.net>
Source record: 24235

IF you don't acquire one in the next few hours, e-mail me direct - removing the "no spam" and I'll try to find the one I have. Then I'll scan it and send. I can then only hope you can read it, as the last guy couldn't read my scan..... Not sure why, it's a new system that worked ok otherwise. Aside from a scan, maybe you can send me an SASE for it.

L.

"J" <jmort@despammed.com> wrote in message
news:cf5um5$7rm$1@news7.svr.pol.co.uk...
> I am interested in making a Sinadder meter.
> If anyone has a schematic could I ask for a scan please.
>
> Thanks
>
>

1554. Ft for RF transistor

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-08 21:51:02 UTC
From: SBC <braymond@ameritech.net>
Message-ID: <afxRc.908$ZC7.325@newssvr19.news.prodigy.com>
Source record: 24236

Well, I picked up a couple of Mitsubishi 2SC2166s to play with. I'm interested in using the transistor for HF or low VHF. I'm only playing, so nothing I do is critical. I just want to see what I can make the transistors do.

I'd like to design a circuit, model it, and then mock it up and see how close I come with my model. The gotcha is that the datasheet shows just about everything I think I need except for the gain-bandwidth product (Ft). I'm doing my modeling based upon Wes Hayward's Introduction to RF Design (absolutely wonderful book) and EMRFD (not bad, either).

My first question - is this just a fool's errand? In other words, is this transistor just typecast for CB finals and for some reason it's not possible to use it for anything else?

My second question - assuming the answer to question #1 is no, is there a reasonable way to estimate Ft from the other data (such as Zin and Zout)? I'm generally suspicious of any derived values, but in this case derived data would be better than nothing. I'm assuming the Ft is probably somewhere between 100-200 MHz, but that's just a guess.

Thanks for you help,
Bruce Raymond/ND8I

1555. Re: Ft for RF transistor

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-09 02:01:06 UTC
From: TOM <noname@noprovider.nodomain>
Message-ID: <CVARc.6441$114.3053@nwrddc02.gnilink.net>
Source record: 24237

All the datasheets seem to be missing the Ft for this part. Other parts in
the same family have Ft in the
100 MHz range for the 6 amp die, and 150 MHz for the 3 amp die, so a good
guess for the 4 amp
one (2sc2166) should be about 150 MHz.

-- Tom

"SBC" <braymond@ameritech.net> wrote in message
news:afxRc.908$ZC7.325@newssvr19.news.prodigy.com...
> Well, I picked up a couple of Mitsubishi 2SC2166s to play with.
> I'm interested in using the transistor for HF or low VHF. I'm
> only playing, so nothing I do is critical. I just want to see what
> I can make the transistors do.
>
> I'd like to design a circuit, model it, and then mock it up and see
> how close I come with my model. The gotcha is that the datasheet
> shows just about everything I think I need except for the gain-
> bandwidth product (Ft). I'm doing my modeling based upon Wes
> Hayward's Introduction to RF Design (absolutely wonderful book)
> and EMRFD (not bad, either).
>
> My first question - is this just a fool's errand? In other words,
> is this transistor just typecast for CB finals and for some reason
> it's not possible to use it for anything else?
>
> My second question - assuming the answer to question #1 is
> no, is there a reasonable way to estimate Ft from the other
> data (such as Zin and Zout)? I'm generally suspicious of any
> derived values, but in this case derived data would be better
> than nothing. I'm assuming the Ft is probably somewhere
> between 100-200 MHz, but that's just a guess.
>
> Thanks for you help,
> Bruce Raymond/ND8I
>
>
>
>
>

1556. Re: Ft for RF transistor

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-09 02:37:51 UTC
From: bviel <sjouk@home.nl>
Message-ID: <cf6o1enlc1@news2.tilbu1.nb.home.nl>
Source record: 24238

Searched my datasheets, HF-Low, (27Mhz), working frequentie.
Working frequentie is most the time 1/10 of the Ft, Ft is 270Mhz ?
Ft increases with higher Ic, draw more current en cool the transistor,
should make it working at higher frequenties !
Greetings Bas.
Whished a had the book you mentioned !
Not available in Europe, available by ARRL America, delivering time
half a year.

"SBC" <braymond@ameritech.net> schreef in bericht
news:afxRc.908$ZC7.325@newssvr19.news.prodigy.com...
> Well, I picked up a couple of Mitsubishi 2SC2166s to play with.
> I'm interested in using the transistor for HF or low VHF. I'm
> only playing, so nothing I do is critical. I just want to see what
> I can make the transistors do.
>
> I'd like to design a circuit, model it, and then mock it up and see
> how close I come with my model. The gotcha is that the datasheet
> shows just about everything I think I need except for the gain-
> bandwidth product (Ft). I'm doing my modeling based upon Wes
> Hayward's Introduction to RF Design (absolutely wonderful book)
> and EMRFD (not bad, either).
>
> My first question - is this just a fool's errand? In other words,
> is this transistor just typecast for CB finals and for some reason
> it's not possible to use it for anything else?
>
> My second question - assuming the answer to question #1 is
> no, is there a reasonable way to estimate Ft from the other
> data (such as Zin and Zout)? I'm generally suspicious of any
> derived values, but in this case derived data would be better
> than nothing. I'm assuming the Ft is probably somewhere
> between 100-200 MHz, but that's just a guess.
>
> Thanks for you help,
> Bruce Raymond/ND8I
>
>
>
>
>

1557. Re: Receive NDB beacons ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-09 02:59:06 UTC
From: novatech@eskimo.com
Message-ID: <cf6p9q$7ct$1@eskinews.eskimo.com>
Source record: 24239
Cross-posted to: alt.radio.scanner,rec.radio.amateur.homebrew,rec.radio.scanner

> Hello everybody,
> I wonder if anyone has already tried to receive the signal of NDB beacons ?
> These are long-range radio beacons, used by aircrafts for navigation,
> operating in the frequencies from stg like 200 to 500 KHz I think. Their
> signal is AM-modulated with a sound signal of their code (three letters) in
> morse.

Just got back from a cruise to Alaska. Took my Sony 7600GR with my. Sitting on the top deck at night I could get 6-10 beacons, US and Canada, using just the internal antenna. I guess bush pilots still use the beacons.

HF was also really good. At the WWV and WWVH signals came in easily.

Steve.

--
Steven D. Swift, novatech@eskimo.com, http://www.novatech-instr.com
NOVATECH INSTRUMENTS, INC. P.O. Box 55997
206.301.8986, fax 206.363.4367 Seattle, Washington 98155 USA

1558. Wanted: Ramsey SW Converter Schematic

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-09 03:02:31 UTC
From: haf47@juno.com
Message-ID: <f03bf94f.0408081902.37f22560@posting.google.com>
Source record: 24240

Hello to all,

I am looking for the schematic for the Ramsey Shortwave Converter Kit SC1.

I seem to remember this is a simple 2-transistor circuit.

If you have a copy and could scan it, I would appreciate it.

Thanks for any possible help.

73 de WA2AFD

1559. PL259 Query

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-09 08:42:53 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2nort2F33rq2U1@uni-berlin.de>
Source record: 24241
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

It would appear that even if one purchases PL259's intended for large coax, that there remain differences, eg, if there is a shoulder just below the screwed portion where the reducer might go in, then it is intended for the slightly smaller large diameter coaxes. Is this the case?

(Never had this problem when we all used Belling-Lee connectors and UHF TV coax!)

1560. Re: Saddam Hussein Found hanging in Jail Cell

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-09 10:23:04 UTC
From: Steve <lafayetteradio3@optonline.net>
Message-ID: <4117514D.11512C@optonline.net>
Source record: 24242
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.amateur.space,rec.radio.amateur.swap

HERE WE GO AGAIN WITH THIS VIRUS CRAP.
IT SHOULD READ:
SENDER OF FALSE CRAP WITH VIRUS ATTACHED FOUND HANGING
AT HOME BY INTERNET USERS!!

davidreid@gmail.com wrote:

> Early this morning Saddam Hussein was found to have commited suicide. The guards who check on him at regular 30 minute intervals found a suicide note at the scene which can be downloaded and read here.
>
> Name: SaddamFoundHanged.zip
> SaddamFoundHanged.zip Type: Zip Compressed Data (application/x-zip-compressed)
> Encoding: x-uuencode

1561. Re: PL259 Query

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-09 10:36:00 UTC
From: Steve <lafayetteradio3@optonline.net>
Message-ID: <41175454.98532157@optonline.net>
Source record: 24243
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

Yes, with the proper reducer one could use RG-58U and or RG-8X (or as it is sometimes called RG-8u modified) the 8X is much better than the 58U. A tad thicker
than 58u but much heavier center conductor and a better shield. This can handle much more power also. I use it all the time. The reducer needed is UG-176/U (8X is the thickness of RG-59U that is used on cable systems)
cheers!
73
==========

"Airy R. Bean" wrote:

> It would appear that even if one purchases PL259's intended
> for large coax, that there remain differences, eg, if there is
> a shoulder just below the screwed portion where the reducer
> might go in, then it is intended for the slightly smaller large
> diameter coaxes. Is this the case?
>
> (Never had this problem when we all used Belling-Lee
> connectors and UHF TV coax!)

1562. Plumbing techniques on VHF

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-09 11:16:35 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2np4taF2jbmgU1@uni-berlin.de>
Source record: 24244
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

I was recently commissioning a 2M vertical antenna that
had an in-built SO239. However, the thread on the SO239
was shorter than that of a PL259 to the extent that even when
screwed fully home, the cable was not locked (Usually by
those triangular pips on the end of the plug locating into
the v-grooves on the SO239) and could
swivel around with a correspondingly poor contact
for the braid/outer.

The solution was inspired by the new bathroom which
we installed recently, in particular, the use of (Yorkshire?)
compression fittings with their olives to join lengths
of copper pipe.

The method is to completely unscrew the PL259's nut off
the plug, and to wrap some braid off a piece of scrap coax
around the cable end of the plug. When the nut is now
tightened down, the braid is compressed and acts to lock
down the PL259 by reducing the length of screw thread that
is available to mate with the SO239

1563. Re: Plumbing techniques on VHF

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-09 13:12:23 UTC
From: "jim.gm4dhj" <jim.gm4dhj@ntlworld.com>
Message-ID: <XKKRc.167$1h5.118@newsfe5-gui.ntli.net>
Source record: 24245
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

"Airy R. Bean" <me@privacy.net> wrote in message
news:2np4taF2jbmgU1@uni-berlin.de...
> I was recently commissioning a 2M vertical antenna that
> had an in-built SO239. However, the thread on the SO239
> was shorter than that of a PL259 to the extent that even when
> screwed fully home, the cable was not locked (Usually by
> those triangular pips on the end of the plug locating into
> the v-grooves on the SO239) and could
> swivel around with a correspondingly poor contact
> for the braid/outer.
>
> The solution was inspired by the new bathroom which
> we installed recently, in particular, the use of (Yorkshire?)

no

> compression fittings with their olives to join lengths
> of copper pipe.
>
> The method is to completely unscrew the PL259's nut off
> the plug, and to wrap some braid off a piece of scrap coax
> around the cable end of the plug. When the nut is now
> tightened down, the braid is compressed and acts to lock
> down the PL259 by reducing the length of screw thread that
> is available to mate with the SO239
>
>

1564. Re: PL259 Query

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-09 13:24:30 UTC
From: Gareth's Memory <someone@microsoft.com>
Message-ID: <2npc8gF2ptt0U1@uni-berlin.de>
Source record: 24246
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

"Airy R. Bean" <me@privacy.net> wrote in message
news:2nort2F33rq2U1@uni-berlin.de...
> It would appear that even if one purchases PL259's intended
> for large coax, that there remain differences, eg, if there is
> a shoulder just below the screwed portion where the reducer
> might go in, then it is intended for the slightly smaller large
> diameter coaxes. Is this the case?
>
> (Never had this problem when we all used Belling-Lee
> connectors and UHF TV coax!)

Hmm. Doesn't sound like the sort of question I'd expect from a regular home
brewer.

Just how much construction have you done?

1565. Re: Plumbing techniques on VHF

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-09 13:25:23 UTC
From: Gareth's Memory <someone@microsoft.com>
Message-ID: <2npca3F38s2uU1@uni-berlin.de>
Source record: 24147
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

"Airy R. Bean" <me@privacy.net> wrote in message
news:2np4taF2jbmgU1@uni-berlin.de...
> I was recently commissioning a 2M vertical antenna that
> had an in-built SO239. However, the thread on the SO239
> was shorter than that of a PL259 to the extent that even when
> screwed fully home, the cable was not locked (Usually by
> those triangular pips on the end of the plug locating into
> the v-grooves on the SO239) and could
> swivel around with a correspondingly poor contact
> for the braid/outer.
>
> The solution was inspired by the new bathroom which
> we installed recently, in particular, the use of (Yorkshire?)
> compression fittings with their olives to join lengths
> of copper pipe.
>
> The method is to completely unscrew the PL259's nut off
> the plug, and to wrap some braid off a piece of scrap coax
> around the cable end of the plug. When the nut is now
> tightened down, the braid is compressed and acts to lock
> down the PL259 by reducing the length of screw thread that
> is available to mate with the SO239

This is the sort of bodge job you used in your software. Wasn't it.

Ask Westinghouse.

1566. Re: Plumbing techniques on VHF

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-09 13:37:28 UTC
From: Jeff <jeff@local.host>
Message-ID: <cf7ump$c3n$1@newsg3.svr.pol.co.uk>
Source record: 24148
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

"Airy R. Bean" <me@privacy.net> wrote in message
news:2np4taF2jbmgU1@uni-berlin.de...
> I was recently commissioning a 2M vertical antenna that
> had an in-built SO239. However, the thread on the SO239
> was shorter than that of a PL259 to the extent that even when
> screwed fully home, the cable was not locked (Usually by
> those triangular pips on the end of the plug locating into
> the v-grooves on the SO239) and could
> swivel around with a correspondingly poor contact
> for the braid/outer.

Even a Cber would know that your problem is caused by
trying to mate up 2 incompatible threads!!!

It is a common problem on white stick antennas, if you
purchase a compatible plug then everything will screw up
correctly.!!!!!

Jeff

1567. Re: Plumbing techniques on VHF

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-09 13:59:26 UTC
From: Gareth's Memory <someone@microsoft.com>
Message-ID: <2npe9vF308hfU1@uni-berlin.de>
Source record: 24149
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

"Jeff" <jeff@local.host> wrote in message
news:cf7ump$c3n$1@newsg3.svr.pol.co.uk...
> "Airy R. Bean" <me@privacy.net> wrote in message
> news:2np4taF2jbmgU1@uni-berlin.de...
> > I was recently commissioning a 2M vertical antenna that
> > had an in-built SO239. However, the thread on the SO239
> > was shorter than that of a PL259 to the extent that even when
> > screwed fully home, the cable was not locked (Usually by
> > those triangular pips on the end of the plug locating into
> > the v-grooves on the SO239) and could
> > swivel around with a correspondingly poor contact
> > for the braid/outer.
>
> Even a Cber would know that your problem is caused by
> trying to mate up 2 incompatible threads!!!
>
> It is a common problem on white stick antennas, if you
> purchase a compatible plug then everything will screw up
> correctly.!!!!!

You can't tell Gareth anything about screwing things up. He is an expert in
it.

Ask Westinghouse.

1568. Re: Plumbing techniques on VHF

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-09 14:39:03 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2nph0oF36o6eU1@uni-berlin.de>
Source record: 24150
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

Sorry, don't know what you mean - the 239/259
is not a standard for some antennae? Is that what you
are trying to say?

"Jeff" <jeff@local.host> wrote in message
news:cf7ump$c3n$1@newsg3.svr.pol.co.uk...
> "Airy R. Bean" <me@privacy.net> wrote in message
> news:2np4taF2jbmgU1@uni-berlin.de...
> > I was recently commissioning a 2M vertical antenna that
> > had an in-built SO239. However, the thread on the SO239
> > was shorter than that of a PL259 to the extent that even when
> > screwed fully home, the cable was not locked (Usually by
> > those triangular pips on the end of the plug locating into
> > the v-grooves on the SO239) and could
> > swivel around with a correspondingly poor contact
> > for the braid/outer.
>
> Even a Cber would know that your problem is caused by
> trying to mate up 2 incompatible threads!!!
>
> It is a common problem on white stick antennas, if you
> purchase a compatible plug then everything will screw up
> correctly.!!!!!
>
> Jeff
>
>
>

1569. 3CX800A7 vs 4CX800A

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-09 15:05:02 UTC
From: Prune <bobysgotguns@yahoo_NOSPAM_.com>
Message-ID: <Xns955E522A794FAGormenghast@64.59.144.76>
Source record: 24151

I read somewhere that the cheaper Svetlana 4CX800A can be used as a substitute for the Eimac 3CX800A7. Does anyone know if the Svetlana tube also uses beam forming? Would I notice a difference at audio frequencies? (I'm serious)
Also, can this tube be used in class A? On Eimac's site, it says it's designed for class B, but does that mean that it merely won't be as efficient in class A, or it will blow up, or what?

1570. Re: Saddam Hussein Found hanging in Jail Cell

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-09 15:20:30 UTC
From: Herbert Khaury <tiptoe@tulip.me>
Message-ID: <z5OdnZ6ZZaaiC4rcRVn-iw@comcast.com>
Source record: 24152
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.amateur.space,rec.radio.amateur.swap

Two words: Kill File.

--

"Steve" <lafayetteradio3@optonline.net> wrote in message
news:4117514D.11512C@optonline.net...
> HERE WE GO AGAIN WITH THIS VIRUS CRAP.
> IT SHOULD READ:
> SENDER OF FALSE CRAP WITH VIRUS ATTACHED FOUND HANGING
> AT HOME BY INTERNET USERS!!

1571. Re: Motorla RF module info?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-09 16:21:33 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <cf88et$2e7$1@newshost.mot.com>
Source record: 24154

RE: Wilkerson

Change that "E" to an "I" and the "R" to an "N".

Thanks to Google...more than you need to know:
http://www.microwaves101.com/encyclopedia/Wilkinson_splitters.cfm

--
Steve N, K,9;d, c. i My email has no u's.

"Ralph Mowery" <rmowery28146@earthlink.net> wrote in message
news:_VuRc.7668$nx2.60@newsread2.news.atl.earthlink.net...
> > Has anybody tried lashing these little RF bricks up in push-pull?
> > I've got a handful of SAV-7's and it's always been an interesting
> > thought "exercise".
>
> I have never tried but you may want to hook them up using a Wilkerson type
> circuit. Feed them by using a 1/4 wave line on the input and output and a
> 100 ohm resistor . At 2 meters and up this should be easy to do.
>
>

1572. Re: 3CX800A7 vs 4CX800A

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-09 17:01:05 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10hfbeaevm5ehb8@corp.supernews.com>
Source record: 24153

Prune wrote:

> I read somewhere that the cheaper Svetlana 4CX800A can be used as a
> substitute for the Eimac 3CX800A7. Does anyone know if the Svetlana tube
> also uses beam forming? Would I notice a difference at audio frequencies?
> (I'm serious)
> Also, can this tube be used in class A? On Eimac's site, it says it's
> designed for class B, but does that mean that it merely won't be as
> efficient in class A, or it will blow up, or what?

The '3' in 3CX800 means triode, the '4' in 4CX800 means tetrode -- so they won't be compatible.

I have no idea of the potential for high-fidelity audio of either tube, but either one should make fine audio amplifiers otherwise.

Per basic amplifier theory no tube will be as efficient in class A -- the theoretical maximum you can get in class A with a pure sine wave input and a plate choke or transformer is 50%, in class B this goes up to something like 63%.

Any normal* tube can be used in any class of amplifier as long as you don't exceed the various design limits of the tube. In designating it for class B Eimac means that the design limits are sized for such, and in class A operation you'll have to hold a number of them way below maximum to keep the few (plate dissipation, mostly) in line.

Either one of these tubes should be electrically quite suitable for class A operation -- but you have to design the circuit right, and understand the implications of everything that you do. I don't want to discourage you, but the nature of your question tells me that you need to do some serious study (possibly including blowing up some lesser tubes) before you tackle this one.

* and if you find one that can't I'll say it ain't normal!

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

1573. Re: rich cw for qrpp on hf (don't need the math from you after all!)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-09 17:40:40 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <cf8d38$3bg$1@newshost.mot.com>
Source record: 24155

Hi Eternal,

All this IS indeed possible. However, I believe the issue is the low signal to noise performance. I think your reasoning it all based on clean signals and I would ask about the situation where the digital data has a glitch due to just enough noise to start causing errors. The pattern you are looking for has been corrupted and the A/D-converter-shift-register-EPROM bits are not what you are looking for. All the push to digital communications is not based on a need for better low S/N capability, but rather better data capability, and in my opinion, a side effect of this is actually poorer low S/N capability. However, we make the system operate such that have the power to make up for it.

I'll close by saying that I feel that this won't be better than copying by ear, but worse. From what I have seen, digital systems work great down the error threshold, then they completely fall apart, not gradually, but completely---fall off a cliff. The ear/brain system has phenomenal low-signal-to-noise-ratio processing ability.
Go ahead and prototype something and prove me wrong, then I'll say, "Gee, I think you've got something there" and I'll be humbled jus a bit more...
--
Steve N, K,9;d, c. i My email has no u's.

"The Eternal Squire" <eternalsquire@comcast.net> wrote in message news:2_2dnUI53uPFxIvcRVn-jQ@comcast.com...
> Steve,
>
> Okay, I don't need the math after all. I surfed and finally found some
> theory foundation regarding PSK-31:
>
> http://www.arrl.org/tis/info/pdf/x9907003.pdf
> http://www.arrl.org/tis/info/pdf/59941.pdf
>
> Reading these, I can finally agree with you that BPSK is a better
> transport layer than the phase-coded, synchronized FSK I was
> considering. Since it is self-clocking, I would not even need
> a seperate clock station like WWV or WWVB.
>
> Reading what you have been telling me about character selection, it
> seems that sound the tone whenever I detect the shortest Variode
> sequence possible, the space character, followed by a single idle code.
>
> The space character is a simple 1, and a single idle code would be a
> pair of zeroes.

>
> That way the absence of my sequence should squelch the PSK software on
> your end, or its equivalent in my dedicated decoder hardware. Squelch
> would form the space between tones.
>
> I can still use a pair of shift registers and an EPROM to detect the
> difference between the minimal pattern and squelch.
>
> Better?
>
> The Eternal Squire
>
>
>
>
> JLB wrote:
> > Well, he said that he wanted it to be useable by people in third world
> > countries that do not have computers. Most likely they would have a
typical
> > receiver with a bandwidth of 250 to 500 Hz, maybe up to 3 kHz, with a
BFO
> > and product detector. In this case, the narrow shift/phase deviation
would
> > be lost in the noise anyway.
> >
> > Methinks one should study wheel theory first, before trying to invent a
new
> > one, don't you agree?
> >
> > Jim
> >
> >
> >
>

1574. Analog tuning dial template

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-09 18:50:45 UTC
From: Alicyn <crt@ews.com>
Message-ID: <MPG.1b816755f7f78364989680@corp.supernews.com>
Source record: 24156

Hello All!
Does any one know of a website with downloadable templates for a
radio dial?. Specificaly for a F.M. dial. TIA

1575. Analog tunining dial templates

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-09 19:07:32 UTC
From: Alicyn <crt@ews.com>
Message-ID: <MPG.1b816b4f4f6c93dc989681@corp.supernews.com>
Source record: 24157
Cross-posted to: alt.radio.amateur,rec.radio.amateur.homebrew

Hello!
Does anyone know of a website that has radio dial templates that can be downloaded?. Specifically, I am looking for a dial for F.M. The actual size/scale does not matter. TIA.

1576. Re: Plumbing techniques on VHF

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-09 19:29:43 UTC
From: Jeff <jeff@local.host>
Message-ID: <cf8jb8utd1@newsg2.svr.pol.co.uk>
Source record: 24158
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

"Airy R. Bean" <me@privacy.net> wrote in message
news:2nph0oF36o6eU1@uni-berlin.de...
> Sorry, don't know what you mean - the 239/259
> is not a standard for some antennae? Is that what you
> are trying to say?

No,

you will find that there are 2 different threads available,
quite a few 'white stick' antennas use a metric thread.
A non-metric thread plug will screw on most of the way
and then jam, leaving the centre of the plug free to
rotate. Solution buy a plug with the correct thread.

Jeff

1577. Re: Plumbing techniques on VHF

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-09 19:41:34 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2nq2g3F36v94U1@uni-berlin.de>
Source record: 24159
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

A metric PL259? Well, there's a thing!

Do the sellers of Ham Antennae stress that their
SO239 connectors need a special plug?

It may be that what you say is true, but I am sceptical.

"Jeff" <jeff@local.host> wrote in message
news:cf8jb8utd1@newsg2.svr.pol.co.uk...
> "Airy R. Bean" <me@privacy.net> wrote in message
> news:2nph0oF36o6eU1@uni-berlin.de...
> > Sorry, don't know what you mean - the 239/259
> > is not a standard for some antennae? Is that what you
> > are trying to say?
> you will find that there are 2 different threads available,
> quite a few 'white stick' antennas use a metric thread.
> A non-metric thread plug will screw on most of the way
> and then jam, leaving the centre of the plug free to
> rotate. Solution buy a plug with the correct thread.

1578. Re: Ft for RF transistor

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-09 20:35:35 UTC
From: SBC <braymond@ameritech.net>
Message-ID: <reRRc.3369$Ow6.358684@newssvr28.news.prodigy.com>
Source record: 24161

Thanks for all your help.

- Bruce Raymond/ND8I

"bviel" <sjouk@home.nl> wrote in message
news:cf6o1enlc1@news2.tilbu1.nb.home.nl...
> Searched my datasheets, HF-Low, (27Mhz), working frequentie.
> Working frequentie is most the time 1/10 of the Ft, Ft is 270Mhz ?
> Ft increases with higher Ic, draw more current en cool the transistor,
> should make it working at higher frequenties !
> Greetings Bas.
> Whished a had the book you mentioned !
> Not available in Europe, available by ARRL America, delivering time
> half a year.
>
>
> "SBC" <braymond@ameritech.net> schreef in bericht
> news:afxRc.908$ZC7.325@newssvr19.news.prodigy.com...
> > Well, I picked up a couple of Mitsubishi 2SC2166s to play with.
> > I'm interested in using the transistor for HF or low VHF. I'm
> > only playing, so nothing I do is critical. I just want to see what
> > I can make the transistors do.
> >
> > I'd like to design a circuit, model it, and then mock it up and see
> > how close I come with my model. The gotcha is that the datasheet
> > shows just about everything I think I need except for the gain-
> > bandwidth product (Ft). I'm doing my modeling based upon Wes
> > Hayward's Introduction to RF Design (absolutely wonderful book)
> > and EMRFD (not bad, either).
> >
> > My first question - is this just a fool's errand? In other words,
> > is this transistor just typecast for CB finals and for some reason
> > it's not possible to use it for anything else?
> >
> > My second question - assuming the answer to question #1 is
> > no, is there a reasonable way to estimate Ft from the other
> > data (such as Zin and Zout)? I'm generally suspicious of any
> > derived values, but in this case derived data would be better
> > than nothing. I'm assuming the Ft is probably somewhere
> > between 100-200 MHz, but that's just a guess.
> >
> > Thanks for you help,
> > Bruce Raymond/ND8I
> >
> >

> >
> >
> >
>
>

1579. Re: Measuring transitor impedances

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-09 20:40:12 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <cf8njs$5da$1@newshost.mot.com>
Source record: 24164

"Paul Burridge" <pb@notthisbit.osiris1.co.uk> wrote in message
news:pbu9h099vbom0emqqtrenkvq525silb7n8@4ax.com...
> Hi chaps,
>
> Is there a way of determining what basically amounts to S-parameters
> for BJTs without resorting to a hard-to-get VNA? Some way of doing the
> job just with the more usual test equipment you have around?
> (scope/sig-gen etc.)
> p.
> --
> "What is now proved was once only imagin'd." - William Blake, 1793.

I'd consider one of the common antenna impedance analyzers, but I don' know
what the output level is. Scope & sig gen is asking a lot unless you think
you can measure RF voltage and current magnitudes and phase while driving
the device with its "normal" signal level.
If you are talking about RF power transistors, the pros use matching devices
like shorted stubs and stretch lines to get power out, then remove the
device and measure the matching networks with the available equipment. Good
luck.
--
Steve N, K,9;d, c. i My email has no u's.

1580. Re: Analog tunining dial templates

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-09 20:41:38 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <cf8nmi$5dl$1@newshost.mot.com>
Source record: 24163
Cross-posted to: alt.radio.amateur,rec.radio.amateur.homebrew

"Alicyn" <crt@ews.com> wrote in message
news:MPG.1b816b4f4f6c93dc989681@corp.supernews.com...
> Hello!
> Does anyone know of a website that has radio dial templates that can
> be downloaded?. Specifically, I am looking for a dial for F.M. The actual
> size/scale does not matter. TIA.

The spacing of the frequencies depends on the capacitor and the rest of the
circuitry.
--
Steve N, K,9;d, c. i My email has no u's.

1581. Re: PL259 Query

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-09 20:56:04 UTC
From: tox <abc@bcafafafa.couk>
Message-ID: <ExRRc.519$R91.191@newsfe1-gui.ntli.net>
Source record: 24160
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

"Gareth's Memory" <someone@microsoft.com> wrote in message
news:2npc8gF2ptt0U1@uni-berlin.de...
>
> >
> > (Never had this problem when we all used Belling-Lee
> > connectors and UHF TV coax!)
>
> Hmm. Doesn't sound like the sort of question I'd expect from a regular
home
> brewer.
>
> Just how much construction have you done?
>

He once tried to built Tracey Island, using a Fairy Liquid washing up
bottle, two toilet roll tubes and an empty tube of haemorrhoid cream.

Regards
tox

1582. Re: Plumbing techniques on VHF

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-09 21:21:08 UTC
From: Gareth's Memory <someone@microsoft.com>
Message-ID: <2nq86dF3gcncU1@uni-berlin.de>
Source record: 24162
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

"Airy R. Bean" <me@privacy.net> wrote in message
news:2nq2g3F36v94U1@uni-berlin.de...
> A metric PL259? Well, there's a thing!
>
> Do the sellers of Ham Antennae stress that their
> SO239 connectors need a special plug?
>
> It may be that what you say is true, but I am sceptical.
>

How long are do you claim to have been interested in amateur radio?

Gawd, have you ever done anything.

1583. Re: 3CX800A7 vs 4CX800A

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-09 22:05:34 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <OySRc.74896$T_6.19054@edtnps89>
Source record: 24165

Behold, Prune signalled from keyed 4-1000A filament:

> Also, can this tube be used in class A? On Eimac's site, it says it's
> designed for class B, but does that mean that it merely won't be as
> efficient in class A, or it will blow up, or what?

The 3CX800A7 has been used sucessfully in class-A single-ended audiophile amps for a while now.

--
Gregg t3h g33k
"Ratings are for transistors....tubes have guidelines"
http://geek.scorpiorising.ca

1584. Neato! Cheap VLF converter!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-09 22:31:39 UTC
From: Ken Bessler <kg0wx@NOSPAMyahoo.com>
Message-ID: <2nqc9dF3k1vnU1@uni-berlin.de>
Source record: 24166

I was going to buy a Palomar VLF converter for my FT-857D
but stumbled on this website:

http://home.att.net/~jacksonharbor/lfconv.htm

For $12 shipped I got a kit which took an hour to assemble, taking
my time & trying to do a good cosmetic job on the breathmints tin
that holds the project.

$99+shipping for the Palomar? Forget that! This thing rocks! I
ordered the 14 mhz version and on a 134' dipole I'm hearing
WWVB (60kc) LOUD! I'm also picking up a 100w 100' antenna
NDB on 261 kc about S9+20. The co-ordinates for this beacon
are about 21 miles away, due south.

The DGPS signal at 306kc is even louder - S9+50!

It's easy to build with only 1 trimmer cap to set the conversion
rate. I used the program CWGET to measure WWVB at a dial
indicated 1000hz offset. CWGET allowed me to adjust the VLF
converter to +/- 1hz! Neato!

Not too shabby for $12 shipped!

Pics on request....

KG0WX Ken

1585. Re: Motorla RF module info?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-09 23:17:22 UTC
From: Ralph Mowery <rmowery28146@earthlink.net>
Message-ID: <6CTRc.9292$nx2.7516@newsread2.news.atl.earthlink.net>
Source record: 24167

> RE: Wilkerson
>
> Change that "E" to an "I" and the "R" to an "N".
>
>
> Thanks to Google...more than you need to know:
> http://www.microwaves101.com/encyclopedia/Wilkinson_splitters.cfm
>

Thanks, I never did learn to spell. Too much other stuff to learn.

1586. Re: 3CX800A7 vs 4CX800A

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-09 23:45:46 UTC
From: Prune <bobysgotguns@yahoo_NOSPAM_.com>
Message-ID: <Xns955EAA83FADB1Gormenghast@64.59.144.76>
Source record: 24168

Prune <bobysgotguns@yahoo_NOSPAM_.com> wrote in
news:Xns955E522A794FAGormenghast@64.59.144.76:

I should have mentioned what I'm driving: plasma. Class A is not at all inefficient in my application, as the bias power is not wasted but goes into maintaining the plasma. So it's essentially an AF modulated plasma driver. I know Hill's Plasmatronic speakers from the late 70s use that mode of operation, but I'm doing it with air plasma instead of having to use a helium tank. The V-I characteristic of the glow discharge is such that voltage varies very little with current in the range that matters, so essentially I need a 2-3 kV tansconductance amplifier. As few of Hill's creations exist, I haven't found anyone with a circuit diagram yet, and the patent doesn't give details of the amplifier, concentrating instead on the plasma parameters. I know he used 6MJ6 tubes, but that won't work in my case since I'm using air and need higher voltage. It's single ended since the down swing of the sound wave depends on the plasma thermal relaxation constant and is not really independent of the amplifier.

> I read somewhere that the cheaper Svetlana 4CX800A can be used as a
> substitute for the Eimac 3CX800A7. Does anyone know if the Svetlana
> tube also uses beam forming? Would I notice a difference at audio
> frequencies? (I'm serious)
> Also, can this tube be used in class A? On Eimac's site, it says it's
> designed for class B, but does that mean that it merely won't be as
> efficient in class A, or it will blow up, or what?

1587. Re: 3CX800A7 vs 4CX800A

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-10 00:01:19 UTC
From: Prune <bobysgotguns@yahoo_NOSPAM_.com>
Message-ID: <Xns955EAD2763953Gormenghast@64.59.144.76>
Source record: 24169

Gregg <nospam@unknown.org> wrote in news:OySRc.74896$T_6.19054@edtnps89:

Can you point me towards any online info? I failed to find anything in
my first Google pass. BTW I'm not driving regular speakers, but plasma.

> Behold, Prune signalled from keyed 4-1000A filament:
>
>> Also, can this tube be used in class A? On Eimac's site, it says it's
>> designed for class B, but does that mean that it merely won't be as
>> efficient in class A, or it will blow up, or what?
>
> The 3CX800A7 has been used sucessfully in class-A single-ended
> audiophile amps for a while now.
>

1588. Re: Analog tunining dial templates

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-10 01:14:44 UTC
From: Alicyn <crt@ews.com>
Message-ID: <MPG.1b81c160203d2c8b989682@corp.supernews.com>
Source record: 24170
Cross-posted to: alt.radio.amateur,rec.radio.amateur.homebrew

In article <cf8nmi$5dl$1@newshost.mot.com>,
suteuve.nosukowicuz@moutouroula.com says...
>
> "Alicyn" <crt@ews.com> wrote in message
> news:MPG.1b816b4f4f6c93dc989681@corp.supernews.com...
> > Hello!
> > Does anyone know of a website that has radio dial templates that can
> > be downloaded?. Specifically, I am looking for a dial for F.M. The actual
> > size/scale does not matter. TIA.
>
> The spacing of the frequencies depends on the capacitor and the rest of the
> circuitry.
>
I appreciate that you took the time to answer but, what I am looking for
is a dial face template that can be customized via a paint program ie:
paint shop pro.Nothing electrical.

1589. Re: Saddam Hussein Found hanging in Jail Cell

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-10 01:25:43 UTC
From: Tom Randy <Sorry@spamsucks.net>
Message-ID: <pan.2004.08.10.01.30.27.217217@spamsucks.net>
Source record: 24171
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.amateur.space,rec.radio.amateur.swap

On Mon, 09 Aug 2004 10:20:30 -0500, Herbert Khaury wrote:

> Two words: Kill File.

Won't work on these, they change email addresses when they send these.

Best defence is to ditch Windows. I'm serious.

1590. Re: Measuring transitor impedances

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-10 01:53:44 UTC
From: Joe Rocci <joe@roccis.com>
Message-ID: <IUVRc.10829$gd1.5073@trndny05>
Source record: 24172

Here's an idea that's just whacky enough that it might work...has anyone tried it?

If you have a dual-trace scope with enough bandwidth, you might be able use Lissajous patterns. The idea would be to drive the complex load through a directional coupler with fairly good directivity. A sample of the incident signal would go into the scope X input and a sample of the reflected signal would go into the Y input. With a pure reactance as a calibration load, adjust the X and Y scope gain for a perfect circle on the display. Replace the test load with a complex load, and the magnitude and inclination of the line/oval display can tell you amplitude and phase of the reflected signal, from which any other metric can be calculated.

Joe
W3JDR

Steve Nosko <suteuve.nosukowicuz@moutouroula.com> wrote in message news:cf8njs$5da$1@newshost.mot.com...
>
> "Paul Burridge" <pb@notthisbit.osiris1.co.uk> wrote in message
> news:pbu9h099vbom0emqqtrenkvq525silb7n8@4ax.com...
> > Hi chaps,
> >
> > Is there a way of determining what basically amounts to S-parameters
> > for BJTs without resorting to a hard-to-get VNA? Some way of doing the
> > job just with the more usual test equipment you have around?
> > (scope/sig-gen etc.)
> > p.
> > --
> > "What is now proved was once only imagin'd." - William Blake, 1793.
>
> I'd consider one of the common antenna impedance analyzers, but I don' know
> what the output level is. Scope & sig gen is asking a lot unless you think
> you can measure RF voltage and current magnitudes and phase while driving
> the device with its "normal" signal level.
> If you are talking about RF power transistors, the pros use matching devices
> like shorted stubs and stretch lines to get power out, then remove the
> device and measure the matching networks with the available equipment. Good
> luck.
> --
> Steve N, K,9;d, c. i My email has no u's.

>
>
>

1591. Re: Neato! Cheap VLF converter!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-10 02:38:53 UTC
From: Dale Parfitt <par@parelectronics.com>
Message-ID: <1zWRc.17723$114.4114@nwrddc02.gnilink.net>
Source record: 24173

"Ken Bessler" <kg0wx@NOSPAMyahoo.com> wrote in message
news:2nqc9dF3k1vnU1@uni-berlin.de...
> I was going to buy a Palomar VLF converter for my FT-857D
> but stumbled on this website:
>
> http://home.att.net/~jacksonharbor/lfconv.htm
>
> For $12 shipped I got a kit which took an hour to assemble, taking
> my time & trying to do a good cosmetic job on the breathmints tin
> that holds the project.
>
> $99+shipping for the Palomar? Forget that! This thing rocks! I
> ordered the 14 mhz version and on a 134' dipole I'm hearing
> WWVB (60kc) LOUD! I'm also picking up a 100w 100' antenna
> NDB on 261 kc about S9+20. The co-ordinates for this beacon
> are about 21 miles away, due south.
>
> The DGPS signal at 306kc is even louder - S9+50!
>
> It's easy to build with only 1 trimmer cap to set the conversion
> rate. I used the program CWGET to measure WWVB at a dial
> indicated 1000hz offset. CWGET allowed me to adjust the VLF
> converter to +/- 1hz! Neato!
>
> Not too shabby for $12 shipped!
>
> Pics on request....
>
> KG0WX Ken
>
> Hi Ken,
These are indeed a fabulous buy. A number of the LF gang have purchased
them. The only drawback I have heard is that they are apparently not stable
enough for the slower QRSS modes via Argo- although I have no personal
experience.
For NDB's though- these would be a great choice.
Dale W4OP
>

>

1592. Re: Analog tunining dial templates

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-10 04:18:29 UTC
From: "Sal M. Onella" <salmonella@food.poisoning.org>
Message-ID: <p0YRc.21975$Uh.4983@fed1read02>
Source record: 24174
Cross-posted to: alt.radio.amateur,rec.radio.amateur.homebrew

"Alicyn" <crt@ews.com> wrote in message
news:MPG.1b816b4f4f6c93dc989681@corp.supernews.com...
> Hello!
> Does anyone know of a website that has radio dial templates that can
> be downloaded?. Specifically, I am looking for a dial for F.M. The actual
> size/scale does not matter. TIA.

http://www.kidbiz.com/homepageantiqueradio.htm has a few photos of radios
that have FM
dials.

Here's a beaut ... http://www.6v6.co.uk/archive/dials/pilotuner-FM607A.JPG

Please acknowledge.

"Sal"

1593. Re: 3CX800A7 vs 4CX800A

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-10 04:26:28 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <U7YRc.53313$hw6.47336@edtnps84>
Source record: 24175

Behold, Prune signalled from keyed 4-1000A filament:

> Gregg <nospam@unknown.org> wrote in news:OySRc.74896$T_6.19054@edtnps89:
>
> Can you point me towards any online info? I failed to find anything in
> my first Google pass. BTW I'm not driving regular speakers, but plasma.
>
>

Here's the place to start: http://www.audioasylum.com/index.html

I found a link to one in the UK a few years back that used it. Big oak
unit selling for $35,000 USD/channel monoblocks.

No, I didn't bookmark it :-(

--
Gregg t3h g33k
"Ratings are for transistors....tubes have guidelines"
http://geek.scorpiorising.ca

1594. Re: Analog tunining dial templates"Thank You"

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-10 04:58:26 UTC
From: Alicyn <crt@ews.com>
Message-ID: <MPG.1b81f5b7b9d01088989684@corp.supernews.com>
Source record: 24176
Cross-posted to: alt.radio.amateur,rec.radio.amateur.homebrew

In article <p0YRc.21975$Uh.4983@fed1read02>,
salmonella@food.poisoning.org says...
>
> "Alicyn" <crt@ews.com> wrote in message
> news:MPG.1b816b4f4f6c93dc989681@corp.supernews.com...
> > Hello!
> > Does anyone know of a website that has radio dial templates that can
> > be downloaded?. Specifically, I am looking for a dial for F.M. The actual
> > size/scale does not matter. TIA.
>
> http://www.kidbiz.com/homepageantiqueradio.htm has a few photos of radios
> that have FM
> dials.
>
> Here's a beaut ... http://www.6v6.co.uk/archive/dials/pilotuner-FM607A.JPG
>
> Please acknowledge.
>
> "Sal"

I like the pilot tuner alot. This is what I had in mind. Thank you.
>
>
>

1595. KLM VHF power amp

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-10 06:11:01 UTC
From: Joel <Joel@cyberbest.com>
Message-ID: <ZFZRc.728$qB1.621@fe25.usenetserver.com>
Source record: 24177

I picked up a 'junk' KLM PA15-80 BL VHF power amp at a local ham fest. I figured I could find a schematic on the net and get it going. But strangely I can't fine one thing about KLM, other then antenna's and the air-lines. Anyone have any links or information on this amp?

Thanks,
Joe AG4QC

1596. Re: Saddam Hussein Found hanging in Jail Cell

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-10 07:58:32 UTC
From: Roger Halstead <Delete-Invallid.groups@tm.net>
Message-ID: <btvgh0l9i5pmtm6kb63ch97urn1hpaha07@4ax.com>
Source record: 24178
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.amateur.space,rec.radio.amateur.swap

On Tue, 10 Aug 2004 01:25:43 GMT, Tom Randy <Sorry@spamsucks.net>
wrote:

>On Mon, 09 Aug 2004 10:20:30 -0500, Herbert Khaury wrote:
>
>> Two words: Kill File.
>
>
>Won't work on these, they change email addresses when they send these.
>
>Best defence is to ditch Windows. I'm serious.

Why. You have to run the thing to catch it. I have the defaults
turned off, I use Agent as a news reader, and Firefox as a Browser..

You should see the code in some of these. They are adding Netscape as
well as Explorer.

Roger Halstead (K8RI & ARRL life member)
(N833R, S# CD-2 Worlds oldest Debonair)
www.rogerhalstead.com
>

1597. Re: Analog tunining dial templates

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-10 08:10:01 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2nrel6F3tpapU1@uni-berlin.de>
Source record: 24179

How about "meter.exe" which is in the files downloadable by
those who have purchased the ARRL 2004 handbook - caution -
you might need to actually buy the handbook in order to
obtain a valid licence to use the software, but then, if you have
done so, you'll know the URL, so problem solved!

"Alicyn" <crt@ews.com> wrote in message
news:MPG.1b816b4f4f6c93dc989681@corp.supernews.com...
> Hello!
> Does anyone know of a website that has radio dial templates that can
> be downloaded?. Specifically, I am looking for a dial for F.M. The actual
> size/scale does not matter. TIA.

1598. Metric PL259?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-10 08:37:34 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2nrfv5F3ratjU1@uni-berlin.de>
Source record: 24180
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

Another contributor, "Jeff", has intimated that PL259's
are available in metric form.

Is this true?

If so, how does one find out which version of the SO239
is fitted to equipment?

Is the modern (say, more recent than 10 years old) Jap
gear fitted with these later plugs?

When one buys plugs and sockets from the rallies, which
ones is one getting?

Presumably there's no such thing as metric plugs in Yankland?

1599. Re: Metric PL259?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-10 09:01:45 UTC
From: Peter <nomail1@dsl.pipex.com>
Message-ID: <41188ef2$0$20248$cc9e4d1f@news-text.dial.pipex.com>
Source record: 24181
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

"Airy R. Bean" <me@privacy.net> wrote in message
news:2nrfv5F3ratjU1@uni-berlin.de...
> Another contributor, "Jeff", has intimated that PL259's
> are available in metric form.
>
> Is this true?
>
> If so, how does one find out which version of the SO239
> is fitted to equipment?
>
> Is the modern (say, more recent than 10 years old) Jap
> gear fitted with these later plugs?
>
> When one buys plugs and sockets from the rallies, which
> ones is one getting?
>
> Presumably there's no such thing as metric plugs in Yankland?
>
>
I recall buying a diamond dual band antenna and having to buy a metric pl
295 plug at the time so maybe there are two types.

1600. Re: Plumbing techniques on VHF

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-10 10:19:40 UTC
From: Jeff <jeff@local.host>
Message-ID: <cfa7fr$8el$1@newsg4.svr.pol.co.uk>
Source record: 24182
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

"Airy R. Bean" <me@privacy.net> wrote in message
news:2nq2g3F36v94U1@uni-berlin.de...
> A metric PL259? Well, there's a thing!
>
> Do the sellers of Ham Antennae stress that their
> SO239 connectors need a special plug?
>
> It may be that what you say is true, but I am sceptical.
>

Nevada certainly used to, I haven't bought one from them
for several years though.

Jeff

1601. Re: Metric PL259?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-10 10:21:54 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2nrm38F3se65U1@uni-berlin.de>
Source record: 24183
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

Thanks for that, Walt - perhaps now is the time to scream
about "grey" imports if these were intended only for the internal
Japanese Market?

Unfortunately the Diamond colinear to replace the 5/8ths suffered
from the same problem, and the cable is jammed solidly onto the
antenna, so we may be stuck with it! I assumed that the lower part of the
SO239's screw thread was dirty and so drove the nut home with a
pair of pliers, assuming that this would clear the screw thread - we live
and learn!

I'm now well on the way to repairing the 5/8ths where I had to
engage in destructive test - I've been given a large sheet of
Paxolin/Tufnol which is 7/8ths of an inch thick, so 3 thicknesses
of that araldited together and turned down should do the
trick.

"Walt Davidson" <g3nyy@despammed.com> wrote in message
news:1s5hh0td7l3vcaeti6df4kisi1rn7gfa9f@4ax.com...
> "Some cautions: Japan has a
> UHF connector that has a slightly
> different thread size than the standard
> SO-239 (which has a 0.625-
> 24NEF-2A thread.) This metric
> threaded connector is found on nonexport
> Japanese ham equipment.
> A PL-259 will fit on this connector,
> but will only thread on for a few
> turns leaving the shield connection
> loose and creating an undesirable
> condition. MCM sells a UHF bulkhead
> connector (#27-220) with the
> proper thread that replaces the
> most common of these bastard connectors."

1602. Re: Plumbing techniques on VHF

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-10 10:26:29 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2nrmbcF413vtU2@uni-berlin.de>
Source record: 24185
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

Is/was not Nevada a large CB emporium down Portsmouth way?

"Jeff" <jeff@local.host> wrote in message
news:cfa7fr$8el$1@newsg4.svr.pol.co.uk...
> "Airy R. Bean" <me@privacy.net> wrote in message
> news:2nq2g3F36v94U1@uni-berlin.de...
> > Do the sellers of Ham Antennae stress that their
> > SO239 connectors need a special plug?
>
> Nevada certainly used to, I haven't bought one from them
> for several years though.

1603. Re: Measuring transitor impedances

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-10 10:28:32 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <8p8hh0p3q5thkr89kfm6hipm6bc0hi33i2@4ax.com>
Source record: 24184

On Tue, 10 Aug 2004 01:53:44 GMT, "Joe Rocci" <joe@roccis.com> wrote:

>Here's an idea that's just whacky enough that it might work...has anyone
>tried it?
>
>If you have a dual-trace scope with enough bandwidth, you might be able use
>Lissajous patterns. The idea would be to drive the complex load through a
>directional coupler with fairly good directivity. A sample of the incident
>signal would go into the scope X input and a sample of the reflected signal
>would go into the Y input. With a pure reactance as a calibration load,
>adjust the X and Y scope gain for a perfect circle on the display. Replace
>the test load with a complex load, and the magnitude and inclination of the
>line/oval display can tell you amplitude and phase of the reflected signal,
>from which any other metric can be calculated.

Nice idea, Joe! If it could only be made to work, you'd be a genius.
--

"What is now proved was once only imagin'd." - William Blake, 1793.

1604. Re: Plumbing techniques on VHF

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-10 10:30:29 UTC
From: Jeff <jeff@local.host>
Message-ID: <cfa843mmr1@news7.svr.pol.co.uk>
Source record: 24186
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

"Airy R. Bean" <me@privacy.net> wrote in message
news:2nrmbcF413vtU2@uni-berlin.de...
> Is/was not Nevada a large CB emporium down Portsmouth way?
>
yep

Jeff

1605. Re: Metric PL259?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-10 11:00:40 UTC
From: "Jock." <real_class_a2003@yahoo.fr>
Message-ID: <jeahh05idvrlvrbrsv92rkdg5deh5scfou@4ax.com>
Source record: 24187
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

On Tue, 10 Aug 2004 10:01:45 +0100, "Peter" <nomail1@dsl.pipex.com> wrote:

>I recall buying a diamond dual band antenna and having to buy a metric pl
>295 plug at the time so maybe there are two types.

There are. Metric M4 PL259/SO39.

Don't know how you tell the difference other than
by trial and error. PLs don't usually have any
distinguishing markings.

--

|
_| [] [_ |<

Best viewed in Ebriated.

1606. Re: Saddam Hussein Found hanging in Jail Cell

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-10 13:14:15 UTC
From: "R. Scott" <n7hjTHREAD@yahoo.com>
Message-ID: <4118CA27.529A6F3B@yahoo.com>
Source record: 24189
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.amateur.space,rec.radio.amateur.swap

Tom Randy wrote:
>
> On Mon, 09 Aug 2004 10:20:30 -0500, Herbert Khaury wrote:
>
> > Two words: Kill File.
>
> Won't work on these, they change email addresses when they send these.
>

Thats because its different trojaned machines that send them. Caused
by brain deads that constantly Open these things.

--
Scotty N7HJ
Everett, Washington
Remove THREAD to reply.

1607. Re: Metric PL259?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-10 14:03:08 UTC
From: Alan Mears - M0TEC <newbury66@hotmail.com>
Message-ID: <wA4Sc.1066$K84.830@newsfe3-gui.ntli.net>
Source record: 24188
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

"Airy R. Bean" <me@privacy.net> wrote in message
news:2nrm38F3se65U1@uni-berlin.de...
> I assumed that the lower part of the
> SO239's screw thread was dirty and so drove the nut home with a
> pair of pliers, assuming that this would clear the screw thread - we live
> and learn!
>

Ho, Ho, Ho

Yet another fettling experiment that went wrong!
I'm so glad that I'm only a beginer, and not an expert like yourself...

1608. Re: Metric PL259?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-10 14:06:06 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10hhli4nfpgs469@corp.supernews.com>
Source record: 24190
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

Airy R. Bean wrote:

> Another contributor, "Jeff", has intimated that PL259's
> are available in metric form.
>
> Is this true?
>
> If so, how does one find out which version of the SO239
> is fitted to equipment?
>
> Is the modern (say, more recent than 10 years old) Jap
> gear fitted with these later plugs?
>
> When one buys plugs and sockets from the rallies, which
> ones is one getting?
>
> Presumably there's no such thing as metric plugs in Yankland?
>
>
The term "PL259" grew out of a military spec. You may have a metric
connector that _resembles_ a PL259 but it ain't a PL259.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

1609. Re: Analog tunining dial templates

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-10 15:29:41 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <cfappmgdv1@newshost.mot.com>
Source record: 24191
Cross-posted to: alt.radio.amateur,rec.radio.amateur.homebrew

Ahhh. Got it. Not sure just what you need to start from. Starting from scratch isn't very hard. I have an Excel sheet that does circular dials in a chart You use formulas to determine the spacing, so non linear is possible. I got the method from a post on one of the amateur radio groups. Email if you think this will help. If it is a linear (slide rule dial), then any drawing program (including Excel) will do that as well.
--
Steve N, K,9;d, c. i My email has no u's.

"Alicyn" <crt@ews.com> wrote in message
news:MPG.1b81c160203d2c8b989682@corp.supernews.com...
> In article <cf8nmi$5dl$1@newshost.mot.com>,
> suteuve.nosukowicuz@moutouroula.com says...
> >
> > "Alicyn" <crt@ews.com> wrote in message
> > news:MPG.1b816b4f4f6c93dc989681@corp.supernews.com...
> > > Hello!
> > > Does anyone know of a website that has radio dial templates that
can
> > > be downloaded?. Specifically, I am looking for a dial for F.M. The
actual
> > > size/scale does not matter. TIA.
> >
> > The spacing of the frequencies depends on the capacitor and the rest of
the
> > circuitry.
> >
> I appreciate that you took the time to answer but, what I am looking for
> is a dial face template that can be customized via a paint program ie:
> paint shop pro.Nothing electrical.

1610. Re: Measuring transitor impedances

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-10 15:42:01 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <cfaqgqgkf1@newshost.mot.com>
Source record: 24192

"Paul Burridge" <pb@notthisbit.osiris1.co.uk> wrote in message
news:8p8hh0p3q5thkr89kfm6hipm6bc0hi33i2@4ax.com...
> On Tue, 10 Aug 2004 01:53:44 GMT, "Joe Rocci" <joe@roccis.com> wrote:
>
> >Here's an idea that's just whacky enough that it might work...has anyone
> >tried it?
> >
> >If you have a dual-trace scope with enough bandwidth, you might be able
use
> >Lissajous patterns. The idea would be to drive the complex load through a
> >directional coupler with fairly good directivity. A sample of the
incident
> >signal would go into the scope X input and a sample of the reflected
signal
> >would go into the Y input. With a pure reactance as a calibration load,
> >adjust the X and Y scope gain for a perfect circle on the display.
Replace
> >the test load with a complex load, and the magnitude and inclination of
the
> >line/oval display can tell you amplitude and phase of the reflected
signal,
> >from which any other metric can be calculated.
>
> Nice idea, Joe! If it could only be made to work, you'd be a genius.
> --

OK Actually, this looks good as long as you have a directional coupler for
the frequency of interest! Paul didn't say. (SWR Bridge, actual bridge,
for lower frequencies) You'll also have to allow for the difference in
location of the two samples by adjusting the line lengths to the two scope
probes intil they are both at the same "distance" from the load. Judging
phase shift from a circle can't be as good as simply looking at the two
waveforms. The scope horiz gain can be adjusted for some nice number of
divisions for each half cycle, say 9...
I've got a 100MHz. dual trace storage scope, but any directional
couplers around here only will be down to 130 Mhz at best... I do also have
a good bridge for down to 5 MHz., (also about 1 meter worth of stretch
line...so it is possible as long as the power level is within the bridge
capability.
--
Steve N, K,9;d, c. i My email has no u's.

1611. Re: Motorla RF module info?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-10 15:54:34 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <cfar8b$gn3$1@newshost.mot.com>
Source record: 24193

"Ralph Mowery" <rmowery28146@earthlink.net> wrote in message
news:6CTRc.9292$nx2.7516@newsread2.news.atl.earthlink.net...
> > RE: Wilkerson
> >
> > Change that "E" to an "I" and the "R" to an "N".
> >
> > Thanks to Google...more than you need to know:
> > http://www.microwaves101.com/encyclopedia/Wilkinson_splitters.cfm
> >
>
> Thanks, I never did learn to spell. Too much other stuff to learn.
>

Probably shouldn't admit this, but I always have to look it up, even though
I've designed them. Interestingly enough "Wilkenson" got some hits on
Google, so not every one checks...

P.S. You get to a point where your brain actually _fills up_ and nothing
else will fit until something falls out!... Yea, that's the ticket!
--
Steve N, K,9;d, c. i My email has no u's.

1612. Re: Metric PL259?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-10 18:20:18 UTC
From: mexico_zero <andre.craddock@spamntlworld.com>
Message-ID: <CI8Sc.1660$FA4.770@newsfe4-gui.ntli.net>
Source record: 24194
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

"Airy R. Bean" <me@privacy.net> wrote

I assumed that the lower part of the SO239's screw thread was dirty and so drove the nut home with a
> pair of pliers, assuming that this would clear the screw thread - we live
> and learn!
>
>
A 'REAL' engineer would have investigated further and not have resorted to such ham-fisted (sic) tactics. I suggest further learning, for example, a local night class to point you in the right direction. Try your local college for such classes as a starter....

1613. Re: Metric PL259?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-10 18:25:17 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2nsidjF450etU1@uni-berlin.de>
Source record: 24195
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

It is standard practice when you have a tight/rusty
screw but neither the tap nor the die for the thread
to drive a nut against the corrosion.

Stupid boy.

"mexico_zero" <andre.craddock@spamntlworld.com> wrote in message
news:Cl8Sc.1660$FA4.770@newsfe4-gui.ntli.net...
> "Airy R. Bean" <me@privacy.net> wrote
> I assumed that the lower part of the SO239's screw thread was dirty and so
> drove the nut home with a
> > pair of pliers, assuming that this would clear the screw thread - we
live
> > and learn!
> A 'REAL' engineer would have investigated further and not have resorted
to
> such ham-fisted (sic) tactics. I suggest further learning, for example, a
> local night class to point you in the right direction. Try your local
> college for such classes as a starter....

1614. Re: Metric PL259?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-10 18:34:55 UTC
From: Laurie <laurie_h@despammed.com>
Message-ID: <41191553$0$20251$cc9e4d1f@news-text.dial.pipex.com>
Source record: 24196
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

Airy R. Bean wrote:
> Another contributor, "Jeff", has intimated that PL259's
> are available in metric form.
>
> Is this true?
>

Yes, they are known as M-Type connectors
http://www.mingzi.com/electronic/unf/uhf_1.htm

73 Laurie - G6ISY
--
Blatent plug for a friend's new cd :
http://www.magnus-music.com/hexameron/

1615. Focus on Tek 2236 Scope

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-10 19:06:58 UTC
From: Rex <me@hutmail.invalid>
Message-ID: <ul6ih0psfai6aj6rrhomr5t8ge7a17nhi9@4ax.com>
Source record: 24097

I have a Tektronix 2236 Oscilloscope. I haven't used it in a while and when I did this week, I find the focus is very bad. It is barely usable with the focus control set fully ccw. With focus set in the center, the trace dot is about 1 graticle-square in dia.

The trace is plenty bright with intensity turned up, so I don't think the CRT is dying. With intensity turned way down and focus best (at knob limit) the traces are quite blurry.

I have the manual but haven't opened the case yet. I'm wondering if this is a common problem and if there is anything that I should look at first? Anyone have experience or informed suggestions?

1616. Re: Metric PL259?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-10 20:18:03 UTC
From: tox <abc@bcafafafa.couk>
Message-ID: <%3aSc.2062$Uc5.994@newsfe6-gui.ntli.net>
Source record: 24098
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

"Binary Era" <me@privacy.net> wrote in message
news:u15ih0lguqju7ote0m24ujle1m292bbpf6@4ax.com...
> Madame Airiy sic R. "Royal" Bean wrote:
>
> >It is standard practice when you have a tight/rusty
> >screw but neither the tap nor the die for the thread
> >to drive a nut against the corrosion.
>
> Not here it isn't.
>
Clearly, he thinks he's posting to rec.uk.scrapheap-challenge...bless him.

Regards
tox

1617. Re: Another HB VNA - opinions, please...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-10 20:27:16 UTC
From: iw3hev@virgilio.it
Message-ID: <9f9dfc7c.0408101227.2c05c73e@posting.google.com>
Source record: 24100

Paul Burridge <pb@notthisbit.osiris1.co.uk> wrote in message
news:<4b1ig0lk29e12hmjul3u1137g3bc3i3h9u@4ax.com>...
> Hi guys,
>
> Just come across this design for a self-build VNA and wondered what
> you thought of the spec:
>
> http://www.geocities.com/robert_lacoste/previous_designs.htm

Hello Paul, I have a similar type under testing but limited working
frequency range 1.8-60 Mhz at www.qsl.net/iw3hev. The performances are
not comparable to the VNA from N2PK but is good for antenna testing.
Regards
iw3hev
Davide

1618. Re: Another HB VNA - opinions, please...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-10 20:27:38 UTC
From: iw3hev@virgilio.it
Message-ID: <9f9dfc7c.0408101227.3f47b928@posting.google.com>
Source record: 24101

Paul Burridge <pb@notthisbit.osiris1.co.uk> wrote in message
news:<4b1ig0lk29e12hmjul3u1137g3bc3i3h9u@4ax.com>...
> Hi guys,
>
> Just come across this design for a self-build VNA and wondered what
> you thought of the spec:
>
> http://www.geocities.com/robert_lacoste/previous_designs.htm

Hello Paul, I have a similar type under testing but limited working
frequency range 1.8-60 Mhz at www.qsl.net/iw3hev. The performances are
not comparable to the VNA from N2PK but is good for antenna testing.
Regards
iw3hev
Davide

1619. Re: Plumbing techniques on VHF

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-10 21:21:31 UTC
From: brianperrett <brian.perrett10@ntlworld.com>
Message-ID: <v%aSc.1743$K84.126@newsfe3-gui.ntli.net>
Source record: 24099
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

```
"Jeff" <jeff@local.host> wrote in message
news:cfa843$mmr$1@news7.svr.pol.co.uk...
>
> "Airy R. Bean" <me@privacy.net> wrote in message
> news:2nrmbcF413vtU2@uni-berlin.de...
> > Is/was not Nevada a large CB emporium down Portsmouth way?
> >
> yep
>
> Jeff
>
>
```

1620. Re: Plumbing techniques on VHF

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-10 21:39:53 UTC
From: brianperrett <brian.perrett10@ntlworld.com>
Message-ID: <JgbSc.1751$K84.1303@newsfe3-gui.ntli.net>
Source record: 24102
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

"brianperrett" <brian.perrett10@ntlworld.com> wrote in message
news:v%aSc.1743$K84.126@newsfe3-gui.ntli.net...
>
> "Jeff" <jeff@local.host> wrote in message
> news:cfa843mmr1@news7.svr.pol.co.uk...
> >
> > "Airy R. Bean" <me@privacy.net> wrote in message
> > news:2nrmbcF413vtU2@uni-berlin.de...
> > > Is/was not Nevada a large CB emporium down Portsmouth way?
> > >
> > yep
> >
> > Jeff
> >
> >
>
Damn hit wrong key! What I was going to say was:

Going from strength to strength, CB, Amateur, PMR446, Scanners,
DAB.....................

1621. Re: Focus on Tek 2236 Scope

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-10 21:49:55 UTC
From: Henry Kolesnik <kolesnik@sbcglobal.net>
Message-ID: <7qbSc.5210$0x3.1192@newssvr23.news.prodigy.com>
Source record: 24103

Yahoo groups has a Tek scope group, try them.

--
73
Hank WD5JFR
"Rex" <me@hutmail.invalid> wrote in message
news:ul6ih0psfai6aj6rrhomr5t8ge7a17nhi9@4ax.com...
>
> I have a Tektronix 2236 Oscilloscope. I haven't used it in a while and
> when I did this week, I find the focus is very bad. It is barely usable
> with the focus control set fully ccw. With focus set in the center, the
> trace dot is about 1 graticle-square in dia.
>
> The trace is plenty bright with intensity turned up, so I don't think
> the CRT is dying. With intensity turned way down and focus best (at knob
> limit) the traces are quite blurry.
>
> I have the manual but haven't opened the case yet. I'm wondering if this
> is a common problem and if there is anything that I should look at
> first? Anyone have experience or informed suggestions?
>

1622. Re: Motorla RF module info?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-10 22:16:13 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <p0iih01skb41c5kgk83gcm5k9smitt0cjl@4ax.com>
Source record: 24104

On Tue, 10 Aug 2004 10:54:34 -0500, "Steve Nosko"
<suteuve.nosukowicuz@moutouroula.com> wrote:

>P.S. You get to a point where your brain actually _fills up_ and nothing
>else will fit until something falls out!... Yea, that's the ticket!

Indeed. In the case of most people in the populous at large, the
one-seventh of the brain that *is* used is concentrating on Fox TV.
This feeds the other 6/7 with the neurotransmitter, dopamine, which
tells them not to worry: everything's fine.
--

"What is now proved was once only imagin'd." - William Blake, 1793.

1623. Re: Plumbing techniques on VHF

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-10 22:38:37 UTC
From: Frank Turner-Smith G3VKI <g3vki@turner-smith.co.uk>
Message-ID: <2nt13dF45pdjU2@uni-berlin.de>
Source record: 24106
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

"Airy R. Bean, Chippenham Breaker" <me@privacy.net> wrote in message
news:2nrmbcF413vtU2@uni-berlin.de...
> Is/was not Nevada a large CB emporium down Portsmouth way?
>
You should know
...(_!_)...

1624. QRS - new song

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-10 23:24:31 UTC
From: k3pi@arrl.net
Message-ID: <53da5b99.0408101524.5b68c5d@posting.google.com>
Source record: 24107

Take a listen to the new radio song . . . Q R S by Hindsight...written
and performed by radio guys.

Visit http://www.radiointel.com

Click on the Q R S logo on left side of home page.
This takes you to the Hindsight page, scroll down and click on Q R S
logo for the player. You can pull up lyrics also.

Feedback very welcome & appreciated...here or to
hindsight@radiointel.com

Thank you

73 Russ K3Pi
radiointel & hindsight

1625. QRS - new song

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-10 23:24:48 UTC
From: k3pi@arrl.net
Message-ID: <53da5b99.0408101524.2cc695f4@posting.google.com>
Source record: 24108

Take a listen to the new radio song . . . Q R S by Hindsight...written
and performed by radio guys.

Visit http://www.radiointel.com

Click on the Q R S logo on left side of home page.
This takes you to the Hindsight page, scroll down and click on Q R S
logo for the player. You can pull up lyrics also.

Feedback very welcome & appreciated...here or to
hindsight@radiointel.com

Thank you

73 Russ K3Pi
radiointel & hindsight

1626. Re: Focus on Tek 2236 Scope

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-11 00:33:58 UTC
From: Michael Melland <w9wis@charter.net>
Message-ID: <10hij6tcqtnc0a2@corp.supernews.com>
Source record: 24105

IIRC there are 5ea 1/2 watt 1meg or 510K (value depends on scope model) Ohm carbon resistors in there as a focus string that age and get flakey that very often causes this problem. They are in a row by the focus pot on the main board..... check those and replace if off value or open. I had a 2235 with the same problem once .... Jim Yanik, an ex Tek employee gave me this info and it fixed mine.

That said...BE CAREFUL in a scope..... HIGH VOLTAGE present.... 20,000 volts. Don't go inside unless you know what you are doing.

Mike, W9WIS

1627. Re: Measuring transitor impedances

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-11 00:47:47 UTC
From: Joe Rocci <joe@roccis.com>
Message-ID: <T0eSc.4297$Kv2.4186@trndny09>
Source record: 24109

Steve,
A decent (not the dollar store variety) CATV splitter has directivity of
about 30 dB from 5Mhz to over 500 MHZ. I think this would do the job.

Joe
W3JDR

Steve Nosko <suteuve.nosukowicuz@moutouroula.com> wrote in message
news:cfaqgqgkf1@newshost.mot.com...
>
> "Paul Burridge" <pb@notthisbit.osiris1.co.uk> wrote in message
> news:8p8hh0p3q5thkr89kfm6hipm6bc0hi33i2@4ax.com...
> > On Tue, 10 Aug 2004 01:53:44 GMT, "Joe Rocci" <joe@roccis.com> wrote:
> >
> > >Here's an idea that's just whacky enough that it might work...has
anyone
> > >tried it?
> > >
> > >If you have a dual-trace scope with enough bandwidth, you might be able
> use
> > >Lissajous patterns. The idea would be to drive the complex load through
a
> > >directional coupler with fairly good directivity. A sample of the
> incident
> > >signal would go into the scope X input and a sample of the reflected
> signal
> > >would go into the Y input. With a pure reactance as a calibration load,
> > >adjust the X and Y scope gain for a perfect circle on the display.
> Replace
> > >the test load with a complex load, and the magnitude and inclination of
> the
> > >line/oval display can tell you amplitude and phase of the reflected
> signal,
> > >from which any other metric can be calculated.
> >
> > Nice idea, Joe! If it could only be made to work, you'd be a genius.
> > --
>
>
> OK Actually, this looks good as long as you have a directional coupler
for
> the frequency of interest! Paul didn't say. (SWR Bridge, actual bridge,
> for lower frequencies) You'll also have to allow for the difference in
> location of the two samples by adjusting the line lengths to the two scope
> probes intil they are both at the same "distance" from the load. Judging

> phase shift from a circle can't be as good as simply looking at the two
> waveforms. The scope horiz gain can be adjusted for some nice number of
> divisions for each half cycle, say 9...
> I've got a 100MHz. dual trace storage scope, but any directional
> couplers around here only will be down to 130 Mhz at best... I do also
have
> a good bridge for down to 5 MHz., (also about 1 meter worth of stretch
> line...so it is possible as long as the power level is within the bridge
> capability.
> --
> Steve N, K,9;d, c. i My email has no u's.
>
>
>
>

1628. Re: Analog tunining dial templates"Thank You"

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-11 00:55:58 UTC
From: "Sal M. Onella" <salmonella@food.poisoning.org>
Message-ID: <x8eSc.25202$Uh.10402@fed1read02>
Source record: 24110
Cross-posted to: alt.radio.amateur,rec.radio.amateur.homebrew

"Alicyn" <crt@ews.com> wrote in message
news:MPG.1b81f5b7b9d01088989684@corp.supernews.com...

>
> I like the pilot tuner alot. This is what I had in mind. Thank you.

You're welcome.

1629. Re: 3CX800A7 vs 4CX800A

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-11 01:47:58 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <iVeSc.444$S55.280@clgrps12>
Source record: 24111

Behold, Edmund H. Ramm signalled from keyed 4-1000A filament:

> In <OySRc.74896$T_6.19054@edtnps89> Gregg <nospam@unknown.org> writes:
>
>> [...]
>> The 3CX800A7 has been used sucessfully in class-A single-ended
>> audiophile amps for a while now.
>
> How did those audiophiles get rid of (muffle) the blower noise?
>
> 73, Eddi ._._.

Acoustically tuned duct, acts like a muffler ;-)

--
Gregg t3h g33k
"Ratings are for transistors....tubes have guidelines"
http://geek.scorpiorising.ca

1630. ** FLEA at MIT ** Sunday August 15th Cambridge MA

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-11 03:16:29 UTC
From: w1gsl@mit.edu
Message-ID: <41198f8d$0$560$b45e6eb0@senator-bedfellow.mit.edu>
Source record: 24112
Cross-posted to: rec.radio.swap,rec.radio.amateur.misc,rec.radio.info,sci.electronics.misc,ne.forsale,ne.general,rec.radio.amateur.homebrew,rec.radio.amateur.boatanchors

This coming Sunday....

+++ Now even more Buyers Parking !!!
Thanks to TKT we have use of their new parking lot
across Albany St from the SWAPFEST !!!

!! ** More Buyers PARKING is available ** for details see
http://web.mit.edu/w1gsl/Public/flyer

*** !!!! In our Traditional GARAGE and the adjacent lot !!!! ****
so come rain or shine or super heat the Flea is on !!!

********* $1 buyers discount with hardcopy of this notice ********

COMPUTERS - ELECTRONICS - HAM RADIO - COMPUTERS - ELECTRONICS - HAM RADIO

FLEA all SUMMER at MIT
Sunday August 15th 2004
9AM-2PM

Come to the city for a great flea - plenty of free parking.

MIT's electronics and ham radio flea will take
place on the third Sunday of each month this summer,
April thru October.

There is tailgate space for over 600 sellers and
free, off-street parking for >2000 cars!

Buyers admission is $5 (you get $1 off if
you're lucky enough to have a copy of our ad)
and sellers spaces are $20 for the first and
$15 for each additional at the gate.

The flea will be held at the corner of Albany and
Main streets in Cambridge; right in the Kendall
Square area from 9AM to 2PM, with sellers set-up
time starting at 7AM.

*** Attention Sellers ***
Prepaid vendors.. Season Pass or monthly,
will be admitted FIRST.
Separate lines will form prior to gate opening
for prepaid and nonprepaid vendors

!! RAIN or SHINE !! Have no fear of rain, a covered
well illuminated tailgate area is available for all
sellers (6'8" clearance).

Talk-in: 145.23- (PL 88.5) W1BOS/R and
W1XM/R-449.725/444.725 (PL 114.8/2A).

Sponsors: MIT Electronics Research Society
MIT UHF Repeater Association (W1XM)
MIT Radio Society (W1MX)
Harvard Wireless Club (W1AF)

For more info / advanced reservations 617 253 3776

********** $1 buyers discount with hard copy of this notice ************

<<<<<<<<<<<<<<<<<<<<<<< cut here >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>

Mail the coupon below by the 5th of the month to be a Prepaid Vendor.

FLEA at MIT 2004 Rates

SELLERS

Advance $17 First space - includes $10 Cambridge Vendor License
$12 Additional Spaces
Must be received by the 5th of the month.

Gate Admission $20 First Space - includes $10 Cambridge Vendor License
$15 Additional Spaces
Admission is after the prepaid vendors

Early Bird Buyer -Admission after the prepaid vendor line is admitted. ~ 7:15AM
** You may not sell. **
$15 per person at the gate.

****************************** cut here ******************************

FLEA at MIT 2004 Advance Space Application

____April ____May ____June ____ July ____Aug ___Sept ____Oct
@ $17 for the first each month + $12 each additional
____ Season Pass $99 first space $70 each additional

Name _____ Call _____ $ Included_____

Address _____ Phone _____ Make Check to
The MIT Radio Society
City _____ State _____ Zip _____ PO Box 397082
Cambridge MA 02139
E-mail _____

****
Steve Finberg W1GSL w1gsl@mit.edu
PO Box 82 MIT Br Cambridge MA 02139-7082 617 258 3754
****

1631. Re: Fascinating LORAN article in N&V

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-11 06:25:56 UTC
From: Wim Lewis <wiml@underhill.hhhh.org>
Message-ID: <cfce5k$a95$0$216.39.137.58@theriver.com>
Source record: 24113

In article <0YednXC4q7EK-IvcRVn-uA@comcast.com>,
- XC - <nobody@home.net> wrote:
>What/where is N&V???

Nuts & Volts magazine, maybe? Their website says that their August
issue has an article on LORAN:
http://www.nutsvolts.com/toc_Pages/aug04toc.htm
Of course the article itself is not online.

(By the way, please post with your text below the text you're
quoting, with the quote trimmed as much as possible --- usenet
conventions are different from business email conventions.)

--
Wim Lewis <wiml@hhhh.org>, Seattle, WA, USA. PGP keyID 27F772C1

1632. Re: Metric PL259?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-11 06:51:28 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2ntuu1F4c6cmU1@uni-berlin.de>
Source record: 24116
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

I recommend for you a study scheme for the full Ham Radio
licence, because there is then a remote (because of your demonstrated
CBness below) chance that you will come across the gentlemanly
traditions of Ham Radio.

Stupid Boy.

"mexico_zero" <andre.craddock@spamntlworld.com> wrote in message
news:lakSc.93$QR6.1@newsfe1-gui.ntli.net...
> "Airy R. Bean" <me@privacy.net> wrote in message
> news:2nsidjF450etU1@uni-berlin.de...
> > It is standard practice when you have a tight/rusty
> > screw but neither the tap nor the die for the thread
> > to drive a nut against the corrosion.
> >
> > Stupid boy.
> >
> It may be 'the standard' in your chicken shed but is most certainly not
the
> done thing elsewhere!! I recommend a trip to your local library to
research
> the concept of screw threads. Let me know how you get on....

1633. Re: Metric PL259?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-11 06:52:27 UTC
From: Frank Turner-Smith G3VKI <g3vki@turner-smith.co.uk>
Message-ID: <2ntu19F4l8a2U2@uni-berlin.de>
Source record: 24115
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

"mexico_zero" <andre.craddock@spamntlworld.com> wrote in message
news:lakSc.93$QR6.1@newsfe1-gui.ntli.net...
>
> "Airy R. Bean" <me@privacy.net> wrote in message
> news:2nsidjF450etU1@uni-berlin.de...
> > It is standard practice when you have a tight/rusty
> > screw but neither the tap nor the die for the thread
> > to drive a nut against the corrosion.
> >
> > Stupid boy.
> >
> It may be 'the standard' in your chicken shed but is most certainly not
the
> done thing elsewhere!! I recommend a trip to your local library to
research
> the concept of screw threads. Let me know how you get on....
>
You're assuming she can read.
--
;>)
73 de Frank Turner-Smith G3VKI - mine's a pint.
http://turner-smith.co.uk

1634. Re: Metric PL259?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-11 07:47:29 UTC
From: mexico_zero <andre.craddock@spamntlworld.com>
Message-ID: <lakSc.93$QR6.1@newsfe1-gui.ntli.net>
Source record: 24114
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

"Airy R. Bean" <me@privacy.net> wrote in message
news:2nsidjF450etU1@uni-berlin.de...
> It is standard practice when you have a tight/rusty
> screw but neither the tap nor the die for the thread
> to drive a nut against the corrosion.
>
> Stupid boy.
>
It may be 'the standard' in your chicken shed but is most certainly not the
done thing elsewhere!! I recommend a trip to your local library to research
the concept of screw threads. Let me know how you get on....

1635. FA: Older Vibroplex 'bug' + more....

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-11 12:26:53 UTC
From: Heytubeguy <heytubeguy@worldnet.att.net>
Message-ID: <hgoSc.196977$OB3.15367@bgtnsc05-news.ops.worldnet.att.net>
Source record: 24117

Take at look at the address below and tnx for looking:

http://cgi6.ebay.com/ws/eBayISAPI.dll?ViewSellersOtherItems&userid=heytubeguy&completed=0&sort=3&since=-1&include=0&page=1&rows=25

73 heytubeguy

1636. FA:Vibroplex carrying case + more....

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-11 12:27:26 UTC
From: Heytubeguy <heytubeguy@worldnet.att.net>
Message-ID: <OgoSc.196979$OB3.177983@bgtnsc05-news.ops.worldnet.att.net>
Source record: 24118

Take at look at the address below and tnx for looking:

http://cgi6.ebay.com/ws/eBayISAPI.dll?ViewSellersOtherItems&userid=heytubeguy&completed=0&sort=3&since=-1&include=0&page=1&rows=25

73 heytubeguy

1637. Re: Metric PL259?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-11 13:18:14 UTC
From: ablight@alphalink.com.au
Message-ID: <1fc7b362.0408110518.42279540@posting.google.com>
Source record: 24120
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

"Airy R. Bean" <me@privacy.net> wrote in message news:<2nrfv5F3ratjU1@uni-berlin.de>...
> Another contributor, "Jeff", has intimated that PL259's
> are available in metric form.
>
> Is this true?
>
> If so, how does one find out which version of the SO239
> is fitted to equipment?
>
> Is the modern (say, more recent than 10 years old) Jap
> gear fitted with these later plugs?

>
> When one buys plugs and sockets from the rallies, which
> ones is one getting?
>
> Presumably there's no such thing as metric plugs in Yankland?

Interesting - and answered in some of the less abusive postings
further down (thank you) - had the same experience, I bought a heap of
pre-made patch leads with PL259 plugs each end, but they wouldnt screw
down to all the so239 sockets in the workshop - didnt really think
about it, just put it down to lousy quality control (they were only $2
each) so binned them. Never knew there were two standards before.....
73 de VK3BFA Andrew

1638. Re: Schematic and routing programmes

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-11 13:59:32 UTC
From: Markus Baertschi <markus.usenet@markus.org>
Message-ID: <2nun33F50n6vU1@uni-berlin.de>
Source record: 24121

Dave Platt wrote:
> http://www.cadsoft.de/ - they have a freeware version which works
> quite well for boards of moderate size and complexity. Schematic
> entry, board layout, autorouter, Gerber and PostScript and HPGL
> output, and it runs under either Windows or Linux.
>

While the Eagle Layout software (that's where the above link points to)
has room for improvement in the 'easy to use/learn' department it is
powerful and reliable.
It also features a usable free version whose limitations don't prevent
its usage for small to medium projects. The free version allows for a
one-page schematic (any size), an 100x80mm board size and two layers.

All other packages I've tried are either too limited, too buggy or too
expensive for occasional hobby use.

73 Markus HB9VCD

1639. Re: Metric PL259?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-11 14:11:40 UTC
From: mexico_zero <andre.craddock@spamntlworld.com>
Message-ID: <wOpSc.381$Hw4.132@newsfe6-gui.ntli.net>
Source record: 24119
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

"Airy R. Bean" <me@privacy.net> wrote in message
news:2ntuu1F4c6cmU1@uni-berlin.de...
> I recommend for you a study scheme for the full Ham Radio
> licence, because there is then a remote (because of your demonstrated
> CBness below) chance that you will come across the gentlemanly
> traditions of Ham Radio.
>
Been licenced since '87, am capable of 12wpm+ CW, been working in the
aerospace industry since '85. I forgive your misjudgements but must advise
you to stop signing off as 'Stupid Boy'. You're just a little 'restricted'
with your engineering intelligence but don't worry, it'll come with time. I
believe there are engineering newsgroups also avaialable to assist your
learning...

1640. Re: Metric PL259?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-11 14:36:59 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2nuq8iF4pkaaU1@uni-berlin.de>
Source record: 24122
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

Do you wish to contribute to the discussion as a mature
Radio Ham and outline your procedure for the same
problem, or do you wish to be condemned forever
as a childish CBer sneering 'n' jeering from the sidelines?

"mexico_zero" <andre.craddock@spamntlworld.com> wrote in message
news:lakSc.93$QR6.1@newsfe1-gui.ntli.net...
> "Airy R. Bean" <me@privacy.net> wrote in message
> news:2nsidjF450etU1@uni-berlin.de...
> > It is standard practice when you have a tight/rusty
> > screw but neither the tap nor the die for the thread
> > to drive a nut against the corrosion.
> > Stupid boy.
> It may be 'the standard' in your chicken shed but is most certainly not
the
> done thing elsewhere!! I recommend a trip to your local library to
research
> the concept of screw threads. Let me know how you get on....

1641. Re: Metric PL259?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-11 14:39:04 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2nuq8jF4pkaaU2@uni-berlin.de>
Source record: 24123
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

With your insistence on emitting
rather silly and childish remarks perhaps you
are, in reality, a CBer-Masquerading-As-A-Radio-Ham
at best?

Stupid boy.

"mexico_zero" <andre.craddock@spamntlworld.com> wrote in message
news:wOpSc.381$Hw4.132@newsfe6-gui.ntli.net...
> "Airy R. Bean" <me@privacy.net> wrote in message
> news:2ntuu1F4c6cmU1@uni-berlin.de...
> > I recommend for you a study scheme for the full Ham Radio
> > licence, because there is then a remote (because of your demonstrated
> > CBness below) chance that you will come across the gentlemanly
> > traditions of Ham Radio.
> Been licenced since '87, am capable of 12wpm+ CW, been working in the
> aerospace industry since '85. I forgive your misjudgements but must advise
> you to stop signing off as 'Stupid Boy'. You're just a little 'restricted'
> with your engineering intelligence but don't worry, it'll come with time.
I
> believe there are engineering newsgroups also avaialable to assist your
> learning...

1642. Re: Schematic and routing programmes

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-11 16:17:49 UTC
From: "Michael (Tabaliah)" <me@privacy.net>
Message-ID: <NErSc.76503$M95.14577@pd7tw1no>
Source record: 24125

"Markus Baertschi" <markus.usenet@markus.org> wrote in message
news:2nun33F50n6vU1@uni-berlin.de...
> Dave Platt wrote:
> > http://www.cadsoft.de/ - they have a freeware version which works
>
> While the Eagle Layout software (that's where the above link points to)
> has room for improvement in the 'easy to use/learn' department it is
> powerful and reliable.

Thanks everyone for responding so quickly to my search for schematic and routing software. I have downloaded the Eagle software, and am in the middle of contemplating stepping up one level to the non-profit version, so that I can deal with four layer boards and get a real manual. I find that it's parts library to be a bit helter skelter for me - so I will have to build up one of my own based on my normal preference. Maybe once I get to know the software a bit better I'll seek a list for it.

73 Everyone~!

de Michael Beaveridge VE7YXX
email me at mycall at either rac.ca or arrl.net

1643. Re: Metric PL259?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-11 16:22:19 UTC
From: mexico_zero <andre.craddock@spamntlworld.com>
Message-ID: <%IrSc.153$rA4.151@newsfe2-gui.ntli.net>
Source record: 24124
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

"Airy R. Bean" <me@privacy.net> wrote in message
news:2nuq8iF4pkaaU1@uni-berlin.de...
> Do you wish to contribute to the discussion as a mature
> Radio Ham and outline your procedure for the same
> problem, or do you wish to be condemned forever
> as a childish CBer sneering 'n' jeering from the sidelines?
>
>
Ok, as a straight answer, it was unwise to force the thread, but you knew
that already. If there was any foreign body to restrict the threads,
excessive force would only serve to damage the components. Such tactics are
truly 'last resort' to get you home in an emergency. If you're sure the
threads are clean and compatable then the application of a lubricant may
help. I often find this with dissimilar metals, titanium being a major
culprit for 'grabbing' dry inserts.

...HTH...

1644. FA: ITC Cart Machine Service Manual

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-11 16:22:44 UTC
From: tw@emailaccount.com
Message-ID: <d7bc9941.0408110822.6f22a198@posting.google.com>
Source record: 24126
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

Service manual for ITC Tapetronics broadcast cartridge machine, Delta models:

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3741433174

1645. Re: Measuring transitor impedances

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-11 18:30:01 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <cfdonp$348$1@newshost.mot.com>
Source record: 24127

Joe,

Interesting. A splitter as directional coupler for the reverse direction.... Hmmm Yea... and since the device 'probably' won't be near 75 ohms, that directivity won't be a big issue. What about the phase response bandwidth? That's important too. Unfortunately the phase response starts changing well into the passband, right?...
--
Steve N, K,9;d, c. i My email has no u's.

"Joe Rocci" <joe@roccis.com> wrote in message news:T0eSc.4297$Kv2.4186@trndny09...
> Steve,
> A decent (not the dollar store variety) CATV splitter has directivity of
> about 30 dB from 5Mhz to over 500 MHZ. I think this would do the job.
>
> Joe
> W3JDR
>
>
> Steve Nosko <suteuve.nosukowicuz@moutouroula.com> wrote in message
> news:cfaqgqgkf1@newshost.mot.com...
> >
> > "Paul Burridge" <pb@notthisbit.osiris1.co.uk> wrote in message
> > news:8p8hh0p3q5thkr89kfm6hipm6bc0hi33i2@4ax.com...
> > > On Tue, 10 Aug 2004 01:53:44 GMT, "Joe Rocci" <joe@roccis.com> wrote:
> > >
> > > >Here's an idea that's just whacky enough that it might work...has
> anyone
> > > >tried it?
> > > >
> > > >If you have a dual-trace scope with enough bandwidth, you might be
able
> > use
> > > >Lissajous patterns. The idea would be to drive the complex load
through
> a
> > > >directional coupler with fairly good directivity. A sample of the
> > incident
> > > >signal would go into the scope X input and a sample of the reflected
> > signal
> > > >would go into the Y input. With a pure reactance as a calibration
load,
> > > >adjust the X and Y scope gain for a perfect circle on the display.
> > Replace

> > > >the test load with a complex load, and the magnitude and inclination
of
> > the
> > > >line/oval display can tell you amplitude and phase of the reflected
> > signal,
> > > >from which any other metric can be calculated.
> > >
> > > Nice idea, Joe! If it could only be made to work, you'd be a genius.
> > > --
> >
> >
> > OK Actually, this looks good as long as you have a directional coupler
> for
> > the frequency of interest! Paul didn't say. (SWR Bridge, actual
bridge,
> > for lower frequencies) You'll also have to allow for the difference in
> > location of the two samples by adjusting the line lengths to the two
scope
> > probes intil they are both at the same "distance" from the load.
Judging
> > phase shift from a circle can't be as good as simply looking at the two
> > waveforms. The scope horiz gain can be adjusted for some nice number of
> > divisions for each half cycle, say 9...
> > I've got a 100MHz. dual trace storage scope, but any directional
> > couplers around here only will be down to 130 Mhz at best... I do also
> have
> > a good bridge for down to 5 MHz., (also about 1 meter worth of stretch
> > line...so it is possible as long as the power level is within the bridge
> > capability.
> > --
> > Steve N, K,9;d, c. i My email has no u's.
> >
> >
> >
> >
>
>

1646. Re: Another HB VNA - opinions, please...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-11 19:12:45 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <cfdr7u$3ih$1@newshost.mot.com>
Source record: 24130

"iw3hev, Davide" <iw3hev@virgilio.it> wrote in message
news:9f9dfc7c.0408101227.2c05c73e@posting.google.com...
> Paul Burridge <pb@notthisbit.osiris1.co.uk> wrote in message
news:<4b1ig0lk29e12hmjul3u1137g3bc3i3h9u@4ax.com>...
> > Hi guys,
> >
> > Just come across this design for a self-build VNA and wondered what
> > you thought of the spec:
> >
> > http://www.geocities.com/robert_lacoste/previous_designs.htm
>
> Hello Paul, I have a similar type under testing but limited working
> frequency range 1.8-60 Mhz at www.qsl.net/iw3hev. The performances are
> not comparable to the VNA from N2PK but is good for antenna testing.
> Regards
> iw3hev
> Davide

Am I reading the block diag correctly-- in that the contest winner does not
measure return parameters (S11 or S22) , but only through (S21, S12) the
DUT?
Davide's does return measurements.

--
Steve N, K,9;d, c. i My email has no u's.

1647. Re: Focus on Tek 2236 Scope

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-11 19:30:01 UTC
From: Rex <me@hutmail.invalid>
Message-ID: <10rkh0d5umtvmeofhhb7uqnn3gfeohvd3v@4ax.com>
Source record: 24128

On Tue, 10 Aug 2004 17:33:58 -0700, "Michael Melland"
<w9wis@charter.net> wrote:

>IIRC there are 5ea 1/2 watt 1meg or 510K (value depends on scope model)
>Ohm carbon resistors in there as a focus string that age and get flakey that
>very often causes this problem. They are in a row by the focus pot on the
>main board..... check those and replace if off value or open. I had a 2235
>with the same problem once .... Jim Yanik, an ex Tek employee gave me this
>info and it fixed mine.
>
>That said...BE CAREFUL in a scope..... HIGH VOLTAGE present.... 20,000
>volts. Don't go inside unless you know what you are doing.
>
>Mike, W9WIS
>

I see the 510Ks in the circuit diagram, so this seems like a good place
to start looking. Thanks for the tip.

I've worked on HV stuff before, so I think I can avoid killing myself.

1648. Error in textbook?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-11 19:46:24 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <cetkh0lm710l50bgkit5v82t99np8ehfe5@4ax.com>
Source record: 24129
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

Hi all,

In his very skimpy explanation on basic DC biasing for FETs, Chris
Bowick (in RF Circuit Design) gives the suggested bias network that
I've posted to a.b.s.e under the same subject title as this message.
I don't see how this arrangement can possibly work for any N-Jfet
since for one thing at least, the gate is positive with respect to the
source. I've tried to scan the page in and post that, but the
scanner's messing about, so I've redrawn it as a spice schematic and
posted that instead. If it turns out the arrangement is incorrect, as
I suspect, I will endeavor to post his explanation for how he arrived
at these resistor values.
So: is he wrong or am I nuts?

p.

Note: for anyone using LTspice, the fet shown is not a working model;
I'm simply posting this as a diagram for illustration.
--

"What is now proved was once only imagin'd." - William Blake, 1793.

1649. Re: Another HB VNA - opinions, please...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-11 19:52:47 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <MPG.1b8418eb8b0919c2989705@news-central.giganews.com>
Source record: 24132

In article <cfdr7u$3ih$1@newshost.mot.com>,
suteuve.nosukowicuz@moutouroula.com says...
> Am I reading the block diag correctly-- in that the contest winner does not
> measure return parameters (S11 or S22) , but only through (S21, S12) the
> DUT?
> Davide's does return measurements.

That was my impression. You'd have to use an external directional
coupler to do reflectance measurements.

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

1650. Re: Error in textbook?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-11 19:59:22 UTC
From: John Larkin <jjlarkin@highSNIPlandTHIStechPLEASEnology.com>
Message-ID: <t5ukh0lk26atmv694jcoqvaf8im0gv7hia@4ax.com>
Source record: 24133
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Wed, 11 Aug 2004 20:46:24 +0100, Paul Burridge
<pb@notthisbit.osiris1.co.uk> wrote:

>Hi all,
>
>In his very skimpy explanation on basic DC biasing for FETs, Chris
>Bowick (in RF Circuit Design) gives the suggested bias network that
>I've posted to a.b.s.e under the same subject title as this message.
>I don't see how this arrangement can possibly work for any N-Jfet
>since for one thing at least, the gate is positive with respect to the
>source. I've tried to scan the page in and post that, but the
>scanner's messing about, so I've redrawn it as a spice schematic and
>posted that instead. If it turns out the arrangement is incorrect, as
>I suspect, I will endeavor to post his explanation for how he arrived
>at these resistor values.
>So: is he wrong or am I nuts?
>
>p.
>
>Note: for anyone using LTspice, the fet shown is not a working model;
>I'm simply posting this as a diagram for illustration.

Looks like the jfet will be saturated with the values shown, not good
for RF work. Looks like he got the sign of Vgs backwards. The next
example on the same page illustrates that Vg must be near zero, not
+5. Really silly, putting these two circuits side-by-side.

John

1651. Re: Error in textbook?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-11 20:01:51 UTC
From: John Larkin <jjlarkin@highSNIPlandTHIStechPLEASEnology.com>
Message-ID: <6nukh05io0nnr4a06vgm6jbvvfuqoq6qn8@4ax.com>
Source record: 24134
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Wed, 11 Aug 2004 20:46:24 +0100, Paul Burridge
<pb@notthisbit.osiris1.co.uk> wrote:

>Hi all,
>
>In his very skimpy explanation on basic DC biasing for FETs, Chris
>Bowick (in RF Circuit Design) gives the suggested bias network that
>I've posted to a.b.s.e under the same subject title as this message.
>I don't see how this arrangement can possibly work for any N-Jfet
>since for one thing at least, the gate is positive with respect to the
>source. I've tried to scan the page in and post that, but the
>scanner's messing about, so I've redrawn it as a spice schematic and
>posted that instead. If it turns out the arrangement is incorrect, as
>I suspect, I will endeavor to post his explanation for how he arrived
>at these resistor values.
>So: is he wrong or am I nuts?
>
>p.
>
>Note: for anyone using LTspice, the fet shown is not a working model;
>I'm simply posting this as a diagram for illustration.

Oh, the skin depth equation on p 10 is apparently wrong, too.

John

1652. Re: Error in textbook?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-11 20:19:04 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <cjvkh0lqk5pijhcu8snsn9sf5ofjd0g7c1@4ax.com>
Source record: 24135
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Wed, 11 Aug 2004 13:01:51 -0700, John Larkin
<jjlarkin@highSNIPlandTHIStechPLEASEnology.com> wrote:

>Oh, the skin depth equation on p 10 is apparently wrong, too.

Excellent, John. Many thanks. It's reassuring you've seen the actual
book for yourself, but it would have been better if you'd have hung
fire until Active8 or someone else impulsive jumped in and accused me
of getting it all wrong. There are quite a few stoopid errors in this
otherwise excellent book. This one was just a bit more obvious than
the others. :-)
Thanks again for the prompt response.

--

"What is now proved was once only imagin'd." - William Blake, 1793.

1653. Re: Measuring transitor impedances

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-11 20:23:39 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <g00lh0hudbhmldaqrod0rm9gsasdff6kcl@4ax.com>
Source record: 24136

On Wed, 11 Aug 2004 13:30:01 -0500, "Steve Nosko"
<suteuve.nosukowicuz@moutouroula.com> wrote:

>Joe,
>
> Interesting. A splitter as directional coupler for the reverse
>direction.... Hmmm Yea... and since the device 'probably' won't be near 75
>ohms, that directivity won't be a big issue. What about the phase response
>bandwidth? That's important too. Unfortunately the phase response starts
>changing well into the passband, right?...

Well it was a neat idea in principle, certainly. Let's see if there's
a workaround for the issues you raise...

--

"What is now proved was once only imagin'd." - William Blake, 1793.

1654. Re: KLM VHF power amp

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-11 20:23:55 UTC
From: rock_sci@hotmail.com
Message-ID: <d10ed596.0408111223.1202803c@posting.google.com>
Source record: 24137

"Joel" <Joel@cyberbest.com> wrote in message
news:<ZFZRc.728$qB1.621@fe25.usenetserver.com>...
> I picked up a 'junk' KLM PA15-80 BL VHF power amp at a local ham fest. I
> figured I could find a schematic on the net and get it going. But strangely
> I can't fine one thing about KLM, other then antenna's and the air-lines.
> Anyone have any links or information on this amp?
>
> Thanks,
> Joe AG4QC

I have searched for info on these amps and found nothing. If you do
come up with a schematic, I would like to get a copy. Tune up info
would also help as mine has been "modified".

Tim AA6DQ

1655. Re: Error in textbook?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-11 20:27:52 UTC
From: Joerg <notthisjoergsch@removethispacbell.net>
Message-ID: <cjvSc.238$O72.84@newssvr14.news.prodigy.com>
Source record: 24139
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

Hi Paul,

Seems like it was meant for a MOSFET or someone typeset a wrong resistor value and then all this got lost in the review process. Probably best to let the author know so he can correct in the next ed.

>>What is now proved was once only imagin'd." - William Blake, 1793.

I like this one! It reminds me of a mechanical engineering book I got from my late father in law, a book he received from someone even more senior. Under radio frequency waves it states that this is a wonderous and strange phenomenon that is yet to be explaineth. And here I am an RF guy...

Regards, Joerg

http://www.analogconsultants.com

1656. Re: Motorla RF module info?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-11 20:38:09 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <cfe081$4he$1@newshost.mot.com>
Source record: 24143

I never bought into that "only using one tenth" concept. It's a pretty
complex thing and I always thought that those who said that really didn't
understand what it is doing.

--
Steve N, K,9;d, c. i My email has no u's.

"Paul Burridge" <pb@notthisbit.osiris1.co.uk> wrote in message
news:p0iih01skb41c5kgk83gcm5k9smitt0cjl@4ax.com...
> On Tue, 10 Aug 2004 10:54:34 -0500, "Steve Nosko"
> <suteuve.nosukowicuz@moutouroula.com> wrote:
>
>
> >P.S. You get to a point where your brain actually _fills up_ and nothing
> >else will fit until something falls out!... Yea, that's the ticket!
>
> Indeed. In the case of most people in the populous at large, the
> one-seventh of the brain that *is* used is concentrating on Fox TV.
> This feeds the other 6/7 with the neurotransmitter, dopamine, which
> tells them not to worry: everything's fine.
> --
>
> "What is now proved was once only imagin'd." - William Blake, 1793.

1657. Re: Metric PL259?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-11 20:40:39 UTC
From: G1XCO <me@spamvosdsl.co.uk>
Message-ID: <411a8475$1_2@mk-nntp-1.news.uk.worldonline.com>
Source record: 24140
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

"Airy R. Bean" <me@privacy.net> wrote in message
news:2nrm38F3se65U1@uni-berlin.de...
> I'm now well on the way to repairing the 5/8ths where I had to
> engage in destructive test - I've been given a large sheet of
> Paxolin/Tufnol which is 7/8ths of an inch thick, so 3 thicknesses
> of that araldited together and turned down should do the
> trick.
Tufnell is a very lossy dielectric when used outdoors.

Steve H

Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.736 / Virus Database: 490 - Release Date: 09/08/04

1658. Re: Metric PL259?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-11 20:43:25 UTC
From: G1XCO <me@spamvosdsl.co.uk>
Message-ID: <411a851b$1_1@mk-nntp-1.news.uk.worldonline.com>
Source record: 24141
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

"Airy R. Bean" <me@privacy.net> wrote in message
news:2nsidjF450etU1@uni-berlin.de...
> It is standard practice when you have a tight/rusty
> screw but neither the tap nor the die for the thread
> to drive a nut against the corrosion.
>
> Stupid boy.
Standard practice for a "ham" fisted SOB....

Steve H

Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.736 / Virus Database: 490 - Release Date: 09/08/04

1659. Re: Error in textbook?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-11 20:51:38 UTC
From: fellow <Jameson@god.com>
Message-ID: <cfdvf5$fh1$1@newsg2.svr.pol.co.uk>
Source record: 24138
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

"Paul Burridge" <pb@notthisbit.osiris1.co.uk> wrote in message
news:cetkh0lm710l50bgkit5v82t99np8ehfe5@4ax.com...
> Hi all,
>
> In his very skimpy explanation on basic DC biasing for FETs, Chris
> Bowick (in RF Circuit Design) gives the suggested bias network that
> I've posted to a.b.s.e under the same subject title as this message.
> I don't see how this arrangement can possibly work for any N-Jfet
> since for one thing at least, the gate is positive with respect to the
> source. I've tried to scan the page in and post that, but the
> scanner's messing about, so I've redrawn it as a spice schematic and
> posted that instead. If it turns out the arrangement is incorrect, as
> I suspect, I will endeavor to post his explanation for how he arrived
> at these resistor values.
> So: is he wrong or am I nuts?

Have a look on the inside flap to see if he's a reader in engineering at
some University. If so, then they probably are errors.

> p.
>
> Note: for anyone using LTspice, the fet shown is not a working model;
> I'm simply posting this as a diagram for illustration.
> --
>
> "What is now proved was once only imagin'd." - William Blake, 1793.

1660. Re: Metric PL259?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-11 20:53:33 UTC
From: KW <ken.g1itv@MTLworld.com>
Message-ID: <hHvSc.1879$7E3.874@newsfe5-gui.ntli.net>
Source record: 24131
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

> "Airy R. Bean" <me@privacy.net> wrote in message
> news:2nsidjF450etU1@uni-berlin.de...
> > It is standard practice when you have a tight/rusty
> > screw but neither the tap nor the die for the thread
> > to drive a nut against the corrosion.
> >
> > Stupid boy.
> >

You can tighten slightly the nut on the screw then tap the around sides of the nut freeing off the thread. next tighten down again and repeat until sufficiant thread is compatible with the nut.

BTW... don't change the nut for another.

KW

1661. Re: Focus on Tek 2236 Scope

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-11 21:24:16 UTC
From: John Walton <jdwalton@comcast.net>
Message-ID: <B7mdnZ0dSejiElfcRVn-iA@comcast.com>
Source record: 24142

You also want to make sure that the resistors you use are suitable for HV --
Digikey and others sell 'em specially suited for this purpose -- carbon
composite resistors change value above a few hundred volts.

Jack

"Rex" <me@hutmail.invalid> wrote in message
news:10rkh0d5umtvmeofhhb7uqnn3gfeohvd3v@4ax.com...
> On Tue, 10 Aug 2004 17:33:58 -0700, "Michael Melland"
> <w9wis@charter.net> wrote:
>
> >IIRC there are 5ea 1/2 watt 1meg or 510K (value depends on scope model)
> >Ohm carbon resistors in there as a focus string that age and get flakey
that
> >very often causes this problem. They are in a row by the focus pot on the
> >main board..... check those and replace if off value or open. I had a
2235
> >with the same problem once .... Jim Yanik, an ex Tek employee gave me
this
> >info and it fixed mine.
> >
> >That said...BE CAREFUL in a scope..... HIGH VOLTAGE present.... 20,000
> >volts. Don't go inside unless you know what you are doing.
> >
> >Mike, W9WIS
> >
>
> I see the 510Ks in the circuit diagram, so this seems like a good place
> to start looking. Thanks for the tip.
>
> I've worked on HV stuff before, so I think I can avoid killing myself.
>
>

1662. Cancel "Re: Motorla RF module info?"

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-11 21:34:24 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <p64lh09kgio1p7tqfhi5i7h3ugej1c4ral@4ax.com>
Source record: 24144

J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

1663. Re: Metric PL259?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-11 22:10:06 UTC
From: Gareth's Memory <someone@microsoft.com>
Message-ID: <2nvktaF527guU6@uni-berlin.de>
Source record: 23998
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

"Airy R. Bean" <me@privacy.net> wrote in message
news:2nuq8iF4pkaaU1@uni-berlin.de...
> Do you wish to contribute to the discussion as a mature
> Radio Ham and outline your procedure for the same
> problem, or do you wish to be condemned forever
> as a childish CBer sneering 'n' jeering from the sidelines?
>

Actually, it is you who is sneering 'n' jeering. As is the norm.

1664. Re: Metric PL259?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-11 22:12:30 UTC
From: Gareth's Memory <someone@microsoft.com>
Message-ID: <2nvktcF527guU9@uni-berlin.de>
Source record: 23999
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

"Airy R. Bean" <me@privacy.net> wrote in message
news:2ntuu1F4c6cmU1@uni-berlin.de...
> I recommend for you a study scheme for the full Ham Radio
> licence, because there is then a remote (because of your demonstrated
> CBness below) chance that you will come across the gentlemanly
> traditions of Ham Radio.
>

Advice you could well heed yourself.

1665. Re: Measuring transitor impedances

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-11 22:16:04 UTC
From: Joe Rocci <joe@roccis.com>
Message-ID: <EUwSc.9258$dG.759@trndny02>
Source record: 24146

Most people think of a directional coupler as a directional coupler, and a splitter as a splitter. In reality, the splitter is simply the extreme case of a directioanl coupler where the coupling factor is 50%.

The fact that it was designed for 75 ohms is somewhat incidental. The impedance on any of the ports is a function of the impedance on the other ports. As to phase, it has to be well-behaved or you wouldn't have good directivity.

Joe
W3JDR

Steve Nosko <suteuve.nosukowicuz@moutouroula.com> wrote in message news:cfdonp$348$1@newshost.mot.com...
> Joe,
>
> Interesting. A splitter as directional coupler for the reverse
> direction.... Hmmm Yea... and since the device 'probably' won't be near 75
> ohms, that directivity won't be a big issue. What about the phase response
> bandwidth? That's important too. Unfortunately the phase response starts
> changing well into the passband, right?...
> --
> Steve N, K,9;d, c. i My email has no u's.
>
>
> "Joe Rocci" <joe@roccis.com> wrote in message
> news:T0eSc.4297$Kv2.4186@trndny09...
> > Steve,
> > A decent (not the dollar store variety) CATV splitter has directivity of
> > about 30 dB from 5Mhz to over 500 MHZ. I think this would do the job.
> >
> > Joe
> > W3JDR
> >
> >
> > Steve Nosko <suteuve.nosukowicuz@moutouroula.com> wrote in message
> > news:cfaqgqgkf1@newshost.mot.com...
> > >
> > > "Paul Burridge" <pb@notthisbit.osiris1.co.uk> wrote in message
> > > news:8p8hh0p3q5thkr89kfm6hipm6bc0hi33i2@4ax.com...
> > > > On Tue, 10 Aug 2004 01:53:44 GMT, "Joe Rocci" <joe@roccis.com> wrote:
> > > >

> > > > >Here's an idea that's just whacky enough that it might work...has
> > anyone
> > > > > >tried it?
> > > > > >
> > > > > >If you have a dual-trace scope with enough bandwidth, you might be
> able
> > > > use
> > > > > >Lissajous patterns. The idea would be to drive the complex load
> through
> > > a
> > > > > >directional coupler with fairly good directivity. A sample of the
> > > > incident
> > > > > >signal would go into the scope X input and a sample of the
reflected
> > > signal
> > > > > >would go into the Y input. With a pure reactance as a calibration
> load,
> > > > > >adjust the X and Y scope gain for a perfect circle on the display.
> > > > Replace
> > > > > >the test load with a complex load, and the magnitude and
inclination
> of
> > > the
> > > > > >line/oval display can tell you amplitude and phase of the reflected
> > > signal,
> > > > > >from which any other metric can be calculated.
> > > > > >
> > > > > Nice idea, Joe! If it could only be made to work, you'd be a genius.
> > > > > --
> > > > >
> > > >
> > > > OK Actually, this looks good as long as you have a directional
coupler
> > for
> > > > the frequency of interest! Paul didn't say. (SWR Bridge, actual
> bridge,
> > > > for lower frequencies) You'll also have to allow for the difference
in
> > > > location of the two samples by adjusting the line lengths to the two
> scope
> > > > probes intil they are both at the same "distance" from the load.
> Judging
> > > > phase shift from a circle can't be as good as simply looking at the
two
> > > > waveforms. The scope horiz gain can be adjusted for some nice number
of
> > > > divisions for each half cycle, say 9...
> > > > I've got a 100MHz. dual trace storage scope, but any directional
> > > > couplers around here only will be down to 130 Mhz at best... I do
also

> > have
> > > a good bridge for down to 5 MHz., (also about 1 meter worth of stretch
> > > line...so it is possible as long as the power level is within the
bridge
> > > capability.
> > > --
> > > Steve N, K,9;d, c. i My email has no u's.
> > >
> > >
> > >
> > >
> >
> >
>
>

1666. Re: Metric PL259?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-11 22:16:26 UTC
From: Gareth's Memory <someone@microsoft.com>
Message-ID: <2nvktdF527guU10@uni-berlin.de>
Source record: 24000
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

"Airy R. Bean" <me@privacy.net> wrote in message
news:2nsidjF450etU1@uni-berlin.de...
> It is standard practice when you have a tight/rusty
> screw but neither the tap nor the die for the thread
> to drive a nut against the corrosion.
>

Not to the extent that you fettle it.

Correct practice is, wire brush away corrosion if heavy, lubricate, turn the nut, back off the nut, turn, back off, etc.

However, materials in the antennas your refer to rarely corrode if not used.

Face the truth Gareth, you just screwed it. Didn't you. Just like Westinghouse.

1667. Re: Another HB VNA - opinions, please...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-11 22:17:12 UTC
From: Joe Rocci <joe@roccis.com>
Message-ID: <IVwSc.9259$dG.4506@trndny02>
Source record: 23997

Davide,

I don't think your design can resolve the sign of the phase angle, can it??

Joe
W3JDR

Steve Nosko <suteuve.nosukowicuz@moutouroula.com> wrote in message
news:cfdr7u$3ih$1@newshost.mot.com...
>
> "iw3hev, Davide" <iw3hev@virgilio.it> wrote in message
> news:9f9dfc7c.0408101227.2c05c73e@posting.google.com...
> > Paul Burridge <pb@notthisbit.osiris1.co.uk> wrote in message
> news:<4b1ig0lk29e12hmjul3u1137g3bc3i3h9u@4ax.com>...
> > > Hi guys,
> > >
> > > Just come across this design for a self-build VNA and wondered what
> > > you thought of the spec:
> > >
> > > http://www.geocities.com/robert_lacoste/previous_designs.htm
> >
> > Hello Paul, I have a similar type under testing but limited working
> > frequency range 1.8-60 Mhz at www.qsl.net/iw3hev. The performances are
> > not comparable to the VNA from N2PK but is good for antenna testing.
> > Regards
> > iw3hev
> > Davide
>
> Am I reading the block diag correctly-- in that the contest winner does
not
> measure return parameters (S11 or S22) , but only through (S21, S12) the
> DUT?
> Davide's does return measurements.
>
> --
> Steve N, K,9;d, c. i My email has no u's.
>
>

1668. Re: Metric PL259?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-11 22:23:17 UTC
From: Gareth's Memory <someone@microsoft.com>
Message-ID: <2nvkthF527guU15@uni-berlin.de>
Source record: 24001
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

"Airy R. Bean" <me@privacy.net> wrote in message
news:2nrm38F3se65U1@uni-berlin.de...
> Thanks for that, Walt - perhaps now is the time to scream
> about "grey" imports if these were intended only for the internal
> Japanese Market?
>

When was the last time you did any real engineering. Metric threads are the
norm these days. Have been for ages.

1669. Re: Metric PL259?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-11 22:24:21 UTC
From: Gareth's Memory <someone@microsoft.com>
Message-ID: <2nvktiF527guU16@uni-berlin.de>
Source record: 24002
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

"Airy R. Bean" <me@privacy.net> wrote in message
news:2nrm38F3se65U1@uni-berlin.de...
> Thanks for that, Walt - perhaps now is the time to scream
> about "grey" imports if these were intended only for the internal
> Japanese Market?
>
> Unfortunately the Diamond colinear to replace the 5/8ths suffered
> from the same problem, and the cable is jammed solidly onto the
> antenna, so we may be stuck with it! I assumed that the lower part of the
> SO239's screw thread was dirty and so drove the nut home with a
> pair of pliers, assuming that this would clear the screw thread - we live
> and learn!

Why would a new connector be so dirty?

1670. Re: Metric PL259?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-11 22:25:54 UTC
From: Gareth's Memory <someone@microsoft.com>
Message-ID: <2nvktjF527guU17@uni-berlin.de>
Source record: 24003
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

"Airy R. Bean" <me@privacy.net> wrote in message
news:2nrm38F3se65U1@uni-berlin.de...
> Thanks for that, Walt - perhaps now is the time to scream
> about "grey" imports if these were intended only for the internal
> Japanese Market?
>
> Unfortunately the Diamond colinear to replace the 5/8ths suffered
> from the same problem, and the cable is jammed solidly onto the
> antenna, so we may be stuck with it! I assumed that the lower part of the
> SO239's screw thread was dirty and so drove the nut home with a
> pair of pliers, assuming that this would clear the screw thread - we live
> and learn!
>
> I'm now well on the way to repairing the 5/8ths where I had to
> engage in destructive test - I've been given a large sheet of
> Paxolin/Tufnol which is 7/8ths of an inch thick, so 3 thicknesses
> of that araldited together and turned down should do the
> trick.
>

I see another Gareth disaster.

Do you know that Paxolin and Tufnol are not the same thing and both likely
to be lossey if used outside?

1671. Re: Plumbing techniques on VHF

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-11 22:26:39 UTC
From: Gareth's Memory <someone@microsoft.com>
Message-ID: <2nvktkF527guU18@uni-berlin.de>
Source record: 24004
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

"Airy R. Bean" <me@privacy.net> wrote in message
news:2nq2g3F36v94U1@uni-berlin.de...
> A metric PL259? Well, there's a thing!
>
> Do the sellers of Ham Antennae stress that their
> SO239 connectors need a special plug?
>
No but those how sell antennas often do.

1672. QST 9/04 Xtal Osc Phase Noise ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-11 22:29:33 UTC
From: Henry Kolesnik <kolesnik@sbcglobal.net>
Message-ID: <h5xSc.4466$8C4.1332@newssvr24.news.prodigy.com>
Source record: 24005

There's a cosntruction article by K2AOP on page 67 for a xtal osc that sounds appealing to me. ARRL says it couldn't measure the phase noise because its lower than their equipment. I wish they would have stated how low their eqpt goes as I was lead to believe they had some of the best. Anyone have any ideas?
tnx

--
73
Hank WD5JFR

1673. Re: QST 9/04 Xtal Osc Phase Noise ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-11 22:44:51 UTC
From: "Harold E. Johnson" <W4ZCB@mchsi.com>
Message-ID: <DjxSc.288203$Oq2.69146@attbi_s52>
Source record: 24006

> There's a cosntruction article by K2AOP on page 67 for a xtal osc that
> sounds appealing to me. ARRL says it couldn't measure the phase noise
> because its lower than their equipment. I wish they would have stated how
> low their eqpt goes as I was lead to believe they had some of the best.
> Anyone have any ideas?
> tnx
>
They can usually get down to -160, -165 dBc/Hz depending on which cheek they hold their tongue in. I now wish, they'd get me my copy here. Don't often see a construction article in the rag. Do they take the output from the crystal using it as the "final" filter?

W4ZCB

1674. Re: Focus on Tek 2236 Scope

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-12 00:08:34 UTC
From: Michael Melland <w9wis@charter.net>
Message-ID: <10hl6626nhnbs43@corp.supernews.com>
Source record: 24145

Hi Rex,

No problem on the tip.... I suspect others would have chimed in if I didn't.

These days I always feel I need to add the HV disclaimer <grin>.... seems most people rarely see more then 12 vdc these days <grin>.

Mike, W9WIS

1675. Re: QST 9/04 Xtal Osc Phase Noise ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-12 00:41:36 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <MPG.1b845ca042e59077989706@news-central.giganews.com>
Source record: 24007

In article <h5xSc.4466$8C4.1332@newssvr24.news.prodigy.com>,
kolesnik@sbcglobal.net says...
> There's a cosntruction article by K2AOP on page 67 for a xtal osc that
> sounds appealing to me. ARRL says it couldn't measure the phase noise
> because its lower than their equipment. I wish they would have stated how
> low their eqpt goes as I was lead to believe they had some of the best.
> Anyone have any ideas?
> tnx
>
>

They have an HP 8563E, if I remember right. The analyzer's local
oscillator runs in the multi-GHz range, even for HF measurements, so it
wouldn't be economical to clean it up enough to measure a crystal
oscillator directly.

They still could have measured the performance, but it'd be a pain in
the neck, which is probably why they didn't bother. One way to do this
is to mix the oscillator under test with a second crystal oscillator of
known (very high) spectral purity, filter the resulting carrier out with
a high-Q notch filter, and look at what's left at a more-sensitive
analyzer setting than would otherwise be practical. This process has
quite a bit of room for error.

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

1676. Re: QRS - new song

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-12 01:49:10 UTC
From: Ken Scharf <wa2mzeNOTTHIS@bellsouth.net>
Message-ID: <38ASc.785$hz.609@bignews5.bellsouth.net>
Source record: 24008

radiok3pi wrote:
> Take a listen to the new radio song . . . Q R S by Hindsight...written
> and performed by radio guys.
>
> Visit http://www.radiointel.com
>
> Click on the Q R S logo on left side of home page.
> This takes you to the Hindsight page, scroll down and click on Q R S
> logo for the player. You can pull up lyrics also.
>
> Feedback very welcome & appreciated...here or to
> hindsight@radiointel.com
>
> Thank you
>
> 73 Russ K3Pi
> radiointel & hindsight
How about a linux friendly codec version?
(real, mp3, ogg)

1677. Re: Error in textbook?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-12 02:58:57 UTC
From: Fred Bloggs <nospam@nospam.com>
Message-ID: <411ADCD8.7000307@nospam.com>
Source record: 24009
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

John Larkin wrote:

>
> Looks like the jfet will be saturated with the values shown, not good
> for RF work. Looks like he got the sign of Vgs backwards. The next
> example on the same page illustrates that Vg must be near zero, not
> +5. Really silly, putting these two circuits side-by-side.
>
> John
>

Shhhh...don't tell the resident idiot, but it's going to be damn tough
biasing that IDSS=5mA JFET to a quiescent ID=10ma....

1678. Re: Metric PL259?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-12 06:12:22 UTC
From: Prometheus <Prometheus@127.0.0.1>
Message-ID: <eREEE2KGpwGBFwsy@newbrain.demon.co.uk>
Source record: 24010
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

In article <2nrm38F3se65U1@uni-berlin.de>, Airy R. Bean <me@privacy.net>
writes
>I assumed that the lower part of the SO239's screw thread was dirty and
>so drove the nut home with a pair of pliers, assuming that this would
>clear the screw thread - we live and learn!

I warning to those who need it; if an RF connector is "dirty", clean it,
do not leave the dirt to cause trouble.
--
Ian G8ILZ

1679. Re: Metric PL259?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-12 07:30:44 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2o0m6vF5k92vU1@uni-berlin.de>
Source record: 24011
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

So you agree with me, but you needed a channel
to vent your emotion? Not really what Ham Radio is
all about OM, more to be expected from a radio hobby
on 11m.

"mexico_zero" <andre.craddock@spamntlworld.com> wrote in message
news:%IrSc.153$rA4.151@newsfe2-gui.ntli.net...
> "Airy R. Bean" <me@privacy.net> wrote in message
> news:2nuq8iF4pkaaU1@uni-berlin.de...
> > Do you wish to contribute to the discussion as a mature
> > Radio Ham and outline your procedure for the same
> > problem, or do you wish to be condemned forever
> > as a childish CBer sneering 'n' jeering from the sidelines?
> Ok, as a straight answer, it was unwise to force the thread, but you knew
> that already. If there was any foreign body to restrict the threads,
> excessive force would only serve to damage the components. Such tactics
are
> truly 'last resort' to get you home in an emergency. If you're sure the
> threads are clean and compatable then the application of a lubricant may
> help. I often find this with dissimilar metals, titanium being a major
> culprit for 'grabbing' dry inserts.

1680. Re: Metric PL259?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-12 07:41:43 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2o0m71F5k92vU4@uni-berlin.de>
Source record: 24012
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

What I do is half a turn, back a quarter, and then repeat,
rather in the style of tapping a screw thread, using Rocol
also in the same style.

In this case, after 3 1/2 turns I reached the obstruction,
and retracted to examine. There didn't appear to be any obstruction
in the thread, although it was difficult to see because it was down
an aluminium tunnel, and so I applied greater force for the next
half turn, at which point it jammed up, and so reference to
this NG!

Odd that even a direct practical and technical question such
as this matter brought so many of the resident CB types out
of the wood work to sneer 'n' jeer on the sidelines. Their
behaviour in this public forum perhaps does more to create
a bad press for HamRadio and to lower the standards
than they perhaps realise?

"KW" <ken.g1itv@MTLworld.com> wrote in message
news:hHvSc.1879$7E3.874@newsfe5-gui.ntli.net...
> > "Airy R. Bean" <me@privacy.net> wrote in message
> > news:2nsidjF450etU1@uni-berlin.de...
> > > It is standard practice when you have a tight/rusty
> > > screw but neither the tap nor the die for the thread
> > > to drive a nut against the corrosion.
> You can tighten slightly the nut on the screw then tap the around sides of
> the nut freeing off the thread. next tighten down again and repeat until
> sufficiant thread is compatible with the nut.
> BTW... don't change the nut for another.

1681. Re: Another HB VNA - opinions, please...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-12 09:35:05 UTC
From: iw3hev@virgilio.it
Message-ID: <9f9dfc7c.0408120135.367e80d4@posting.google.com>
Source record: 24013

"Steve Nosko" <suteuve.nosukowicuz@moutouroula.com> wrote in message
news:<cfdr7u$3ih$1@newshost.mot.com>...
> "iw3hev, Davide" <iw3hev@virgilio.it> wrote in message
> news:9f9dfc7c.0408101227.2c05c73e@posting.google.com...
> > Paul Burridge <pb@notthisbit.osiris1.co.uk> wrote in message
> news:<4b1ig0lk29e12hmjul3u1137g3bc3i3h9u@4ax.com>...
> > > Hi guys,
> > >
> > > Just come across this design for a self-build VNA and wondered what
> > > you thought of the spec:
> > >
> > > http://www.geocities.com/robert_lacoste/previous_designs.htm
> >
> > Hello Paul, I have a similar type under testing but limited working
> > frequency range 1.8-60 Mhz at www.qsl.net/iw3hev. The performances are
> > not comparable to the VNA from N2PK but is good for antenna testing.
> > Regards
> > iw3hev
> > Davide
>
> Am I reading the block diag correctly-- in that the contest winner does not
> measure return parameters (S11 or S22) , but only through (S21, S12) the
> DUT?
> Davide's does return measurements.

Steve,
The unit performs reflection measurements using the internal
directional coupler, the dynamic range is maximum 30 dB. For
transmission measurements is necessary to add a second connector and a
switch. By the switch we can change the type of the measurement from
reflection to transmission.
The switch will change the signals path of AD8302 inputs, for
transmission measurement the directional coupler will became a power
splitter (-15 dB to the first AD8302 input and the rest to the actual
BNC connector-TX). The reflection port of the directional coupler will
be terminated to 50 ohm only, meanwhile the second AD8302 input will
be connected connect to the extra connector (RX). The software for
transmission measurements is not yet ready but I believe shortly I can
post.
iw3hev, Davide

1682. Re: Another HB VNA - opinions, please...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-12 09:39:23 UTC
From: iw3hev@virgilio.it
Message-ID: <9f9dfc7c.0408120139.49845020@posting.google.com>
Source record: 24014

Joe,
yes the sign of the reactance is not given but looking the X curve is
easily understandable.
Iw3hev, Davide

"Joe Rocci" <joe@roccis.com> wrote in message news:<IVwSc.9259$dG.4506@trndny02>...
> Davide,
>
> I don't think your design can resolve the sign of the phase angle, can it??
>
> Joe
> W3JDR
>
>
> Steve Nosko <suteuve.nosukowicuz@moutouroula.com> wrote in message
> news:cfdr7u$3ih$1@newshost.mot.com...
> >
> > "iw3hev, Davide" <iw3hev@virgilio.it> wrote in message
> > news:9f9dfc7c.0408101227.2c05c73e@posting.google.com...
> > > Paul Burridge <pb@notthisbit.osiris1.co.uk> wrote in message
> news:<4b1ig0lk29e12hmjul3u1137g3bc3i3h9u@4ax.com>...
> > > > Hi guys,
> > > >
> > > > Just come across this design for a self-build VNA and wondered what
> > > > you thought of the spec:
> > > >
> > > > http://www.geocities.com/robert_lacoste/previous_designs.htm
> > >
> > > Hello Paul, I have a similar type under testing but limited working
> > > frequency range 1.8-60 Mhz at www.qsl.net/iw3hev. The performances are
> > > not comparable to the VNA from N2PK but is good for antenna testing.
> > > Regards
> > > iw3hev
> > > Davide
> >
> > Am I reading the block diag correctly-- in that the contest winner does
> not
> > measure return parameters (S11 or S22) , but only through (S21, S12) the
> > DUT?
> > Davide's does return measurements.
> >
> > --
> > Steve N, K,9;d, c. i My email has no u's.
> >

> >

1683. Re: QST 9/04 Xtal Osc Phase Noise ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-12 12:28:33 UTC
From: Henry Kolesnik <kolesnik@sbcglobal.net>
Message-ID: <RnJSc.5417$3Z7.2913@newssvr24.news.prodigy.com>
Source record: 24015

I always thought I was last on the QST delivery line. It says its a Pierce
with a gate follower buffer for output. Quite stable and constant output!
It uses 2 2N5460s. I need to find a half dozen 2N5460s so I can build at
least a couple to test receivers.. If someone finds a source please let me
know. Also it someone builds and measures the phase noise please let us
know.
tnx

--
73
Hank WD5JFR
"Harold E. Johnson" <W4ZCB@mchsi.com> wrote in message
news:DjxSc.288203$Oq2.69146@attbi_s52...
>
>
> > There's a cosntruction article by K2AOP on page 67 for a xtal osc that
> > sounds appealing to me. ARRL says it couldn't measure the phase noise
> > because its lower than their equipment. I wish they would have stated
how
> > low their eqpt goes as I was lead to believe they had some of the best.
> > Anyone have any ideas?
> > tnx
> >
> They can usually get down to -160, -165 dBc/Hz depending on which cheek
they
> hold their tongue in. I now wish, they'd get me my copy here. Don't often
> see a construction article in the rag. Do they take the output from the
> crystal using it as the "final" filter?
>
> W4ZCB
>
>

1684. Re: Throw away your network analyser and use Spice!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-12 12:44:11 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <ntomh09c7f36fq1gfbippljbp8aajccost@4ax.com>
Source record: 24016
Cross-posted to: sci.electronics.design,sci.electronics.cad,rec.radio.amateur.homebrew

On Wed, 11 Aug 2004 18:59:22 -0700, John Larkin
<jjlarkin@highlandSNIPtechTHISnologyPLEASE.com> wrote:

>RFSIM99 does nice frequency-domain analysies, in all sorts of formats
>- Smith, rectangular plots, polars, tabular s-param listings, stuff
>like that. It does lumped parts, transmission lines, and some active
>stuff. Free, too!
>
>It's in a box here, near the bottom:
>
>http://home.sandiego.edu/~ekim/e194rfs01/

That's certainly one highly useful piece of artillery for the RF
designer!
I don't think it actually allows one to *extract* S- parameters
through modling a BJT, for example.
I haven't had the chance to check it over in detail yet, but it seems
you have to insert already predetermined S-params from datasheets or
wherever and it will generate matching networks from there. So it
doesn't actually amount to a 'virtual VNA' - or does it??

p.
--

"What is now proved was once only imagin'd." - William Blake, 1793.

1685. Re: QST 9/04 Xtal Osc Phase Noise ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-12 12:50:44 UTC
From: "Harold E. Johnson" <W4ZCB@mchsi.com>
Message-ID: <EIJSc.135117$eM2.97296@attbi_s51>
Source record: 24017

"Henry Kolesnik" <kolesnik@sbcglobal.net> wrote in message
news:RnJSc.5417$3Z7.2913@newssvr24.news.prodigy.com...
> I always thought I was last on the QST delivery line. It says its a
Pierce
> with a gate follower buffer for output. Quite stable and constant output!
> It uses 2 2N5460s. I need to find a half dozen 2N5460s so I can build at
> least a couple to test receivers.. If someone finds a source please let
me
> know. Also it someone builds and measures the phase noise please let us
> know.
> tnx
>
Mousser has them, although they seem to be a very ordinary P channel FET.

W4ZCB

1686. Re: PLEASE READ - Internet site under legal attack by Radioshack corp.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-12 14:13:44 UTC
From: Chief_Billy@hotmail.com
Message-ID: <45184c6f.0408120613.7e2334ed@posting.google.com>
Source record: 24018
Cross-posted to: alt.radio.wktu,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy

"DSL" <retiredltNOSPAM@NOSPAMoptonline.net> wrote in message
news:<V%aOc.18881$oE1.1782652@news4.srv.hcvlny.cv.net>...
> Thank you for taking the time to read this.
>
> Your Freedoms are in jeopardy! RadioShack Corporation has filed an
> injunction in a Texas Court that has shut down an opinion website,
> http://www.radioshacksucks.com, in direct violation of the Freedoms of
> Speech, Expression and Peaceful Assembly, as guaranteed to us by the
> Constitution of the United States. (snip)...

The 1st Amendment guarantees only that the Government won't imprison,
torture, or otherwise go after you for voicing your opinions. It makes
no guarantee that
someone ELSE might not kick your ass for it. I hear all this whinning
all the time regarding the 1st Amendment. Linda Ronstadt found out
about the 1st Amendment when she got kicked out of a venue in Las
Vegas a few weeks ago for voicing her opinion. Whoopi Goldberg (is she
a Jewess ? Is her name really Whoopteesha ?)learned about it, too, as
did Mike Moore. Sure , you can say whatever you want, but be prepared
to pay the consequences.

1687. Re: Error in textbook?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-12 15:28:41 UTC
From: John Larkin <jjlarkin@highlandSNIPtechTHISnologyPLEASE.com>
Message-ID: <8u2nh095fruq7344no5a4k0kfp9er0reu7@4ax.com>
Source record: 24019
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Thu, 12 Aug 2004 02:58:57 GMT, Fred Bloggs <nospam@nospam.com>
wrote:

>
>
>John Larkin wrote:
>
>>
>> Looks like the jfet will be saturated with the values shown, not good
>> for RF work. Looks like he got the sign of Vgs backwards. The next
>> example on the same page illustrates that Vg must be near zero, not
>> +5. Really silly, putting these two circuits side-by-side.
>>
>> John
>>
>
>Shhhh...don't tell the resident idiot, but it's going to be damn tough
>biasing that IDSS=5mA JFET to a quiescent ID=10ma....

Good point. Bowick seems to be applying the jfet gate-voltage equation
backwards to enhance it! The other example on page 120 is even
sillier.

Just shows you that an RF expert can't always handle DC.

John

1688. Re: Throw away your network analyser and use Spice!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-12 15:35:22 UTC
From: John Larkin <jjlarkin@highlandSNIPtechTHISnologyPLEASE.com>
Message-ID: <673nh0l5etf0md4seghrg73vdcuu4hpsb7@4ax.com>
Source record: 24020
Cross-posted to: sci.electronics.design,sci.electronics.cad,rec.radio.amateur.homebrew

On Thu, 12 Aug 2004 13:44:11 +0100, Paul Burridge
<pb@notthisbit.osiris1.co.uk> wrote:

>On Wed, 11 Aug 2004 18:59:22 -0700, John Larkin
><jjlarkin@highlandSNIPtechTHISnologyPLEASE.com> wrote:
>
>>RFSIM99 does nice frequency-domain analysies, in all sorts of formats
>>- Smith, rectangular plots, polars, tabular s-param listings, stuff
>>like that. It does lumped parts, transmission lines, and some active
>>stuff. Free, too!
>>
>>It's in a box here, near the bottom:
>>
>>http://home.sandiego.edu/~ekim/e194rfs01/
>
>That's certainly one highly useful piece of artillery for the RF
>designer!
>I don't think it actually allows one to *extract* S- parameters
>through modling a BJT, for example.

If you draw a part as a lumped equivalent schematic (ie, a Spice
model) it will give you the s-params. If you are very lucky, the part
manufacturer will give you that Spice model; few do.

>I haven't had the chance to check it over in detail yet, but it seems
>you have to insert already predetermined S-params from datasheets or
>wherever and it will generate matching networks from there.

I think it will do that, too.

> So it
>doesn't actually amount to a 'virtual VNA' - or does it??
>

I don't entirely know what you mean by that. It will give you the
s-params of a given simulated network.

The really hard thing is to have the s-params and go backwards to a
lumped Spice model. There is some software that does this, but I don't
know of any that I can afford.

John

1689. Re: Throw away your network analyser and use Spice!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-12 16:45:15 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <h97nh0paq7k5cjfs9krp73dh1eu3pteeh8@4ax.com>
Source record: 24021
Cross-posted to: sci.electronics.design,sci.electronics.cad,rec.radio.amateur.homebrew

On Thu, 12 Aug 2004 08:35:22 -0700, John Larkin
<jjlarkin@highlandSNIPtechTHISnologyPLEASE.com> wrote:

>If you draw a part as a lumped equivalent schematic (ie, a Spice
>model) it will give you the s-params.

This one I've downloaded doesn't seem to. You can select and join-up
lumped elements but there's no provision for inserting a transistor
model anywhere I can see. You can only construct a test circuit from
passives and one (dys)functional op-amp model only. A most curious
omission. I'd have thought there'd at least be the facility to import
a BJT spice model for a tranny or FET but I can't see any! :-/

>>I haven't had the chance to check it over in detail yet, but it seems
>>you have to insert already predetermined S-params from datasheets or
>>wherever and it will generate matching networks from there.
>
>I think it will do that, too.

Yes, it will certainly do that.

>> So it
>>doesn't actually amount to a 'virtual VNA' - or does it??
>>
>
>I don't entirely know what you mean by that. It will give you the
>s-params of a given simulated network.

Unless I'm missing something; only if it consists of passives.

>The really hard thing is to have the s-params and go backwards to a
>lumped Spice model. There is some software that does this, but I don't
>know of any that I can afford.

Thank God I don't need to do that! ;-)
--

"What is now proved was once only imagin'd." - William Blake, 1793.

1690. Re: KLM VHF power amp

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-12 17:05:00 UTC
From: Bob Stein <bobXstein@sbcglobal.net>
Message-ID: <2o1m9rF60nbqU1@uni-berlin.de>
Source record: 24022

Rocket Scientist wrote:
> "Joel" <Joel@cyberbest.com> wrote in message
news:<ZFZRc.728$qB1.621@fe25.usenetserver.com>...
>
>>I picked up a 'junk' KLM PA15-80 BL VHF power amp at a local ham fest. I
>>figured I could find a schematic on the net and get it going. But strangely
>>I can't fine one thing about KLM, other then antenna's and the air-lines.
>>Anyone have any links or information on this amp?
>>
>>Thanks,
>>Joe AG4QC
>
>
>
> I have searched for info on these amps and found nothing. If you do
> come up with a schematic, I would like to get a copy. Tune up info
> would also help as mine has been "modified".
>
> Tim AA6DQ

I have a pamphlet with schematics of all of the BL amplifiers, but the
PA15-80BL is not among them. There is one for the PA10-80BL, which is
probably close enough because all of the amps use similar circuits.
I can scan it for you, although the copy that I have is not all that great.

Please reply direct.

Bob, w6nbi

--
Remove spam-suppression X from my address

1691. Re: Error in textbook?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-12 17:41:08 UTC
From: crabtreejr@aol.com
Message-ID: <20040812134108.16712.00002378@mb-m22.aol.com>
Source record: 24023

Paul Burridge pb@notthisbit.osiris1.co.uk on 8/11/04 wrote:

>On Wed, 11 Aug 2004 13:01:51 -0700, John Larkin
><jjlarkin@highSNIPlandTHIStechPLEASEnology.com> wrote:
>
>>Oh, the skin depth equation on p 10 is apparently wrong, too.
>
>Excellent, John. Many thanks. It's reassuring you've seen the actual
>book for yourself, but it would have been better if you'd have hung
>fire until Active8 or someone else impulsive jumped in and accused me
>of getting it all wrong. There are quite a few stoopid errors in this
>otherwise excellent book. This one was just a bit more obvious than
>the others. :-)
>Thanks again for the prompt response.

Do you have the original edition ca. 1983, or what amazon.com descibes as the Newnes Reprint edition of 1997 ?

I too have seen mistakes in the 1983 edition. It would be a pity if these were not corrected in the reprint. Does any body have good information on this ?

Thanks and 73

John KC0GGH

1692. Re: Measuring transitor impedances

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-12 20:32:00 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <cfgk8h$i1v$1@newshost.mot.com>
Source record: 24026

"Joe Rocci" <joe@roccis.com> wrote in message
news:EUwSc.9258$dG.759@trndny02...
> Most people think of a directional coupler as a directional coupler, and a
> splitter as a splitter. In reality, the splitter is simply the extreme
case
> of a directioanl coupler where the coupling factor is 50%.
>
> The fact that it was designed for 75 ohms is somewhat incidental. The
> impedance on any of the ports is a function of the impedance on the other
> ports. As to phase, it has to be well-behaved or you wouldn't have good
> directivity.
>
> Joe
> W3JDR

Sure Joe,

you are right. I just never thought of it on that light.

Lets think about this phase thing, however. As long as there is the proper phase cancellation _in_ the splitter, it will balance. This doesn't mean that it is flat, does it? You'll be sampling the forward power somehow and the reverse power with one of these and you need to have them both constant with respect to each other--otherwise you cant measure phase.. If the fwd sampler is the same thing do you get matching characteristics (ignore secondary imperfections for now). I don't know how good ones are made, so I have know first hand knowledge.
--
Steve N, K,9;d, c. i My email has no u's.

1693. development of the "Desert Ratt" regenerative receiver design

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-12 20:51:00 UTC
From: n1jpr@hotmail.com
Message-ID: <95a201e0.0408121251.6c6e6e85@posting.google.com>
Source record: 24024

The "Desert Ratt" is a clever design for a sensitive and well behaved shortwave regenerative radio. It has been doing the rounds in various forms since 1994, and quite a few people added new twists.

As I kept seeing roughly the same stuff popping up all over the place, and found it somewhat hard to keep track of which version was an improvement over another one, I did a bit of investigation to figure out who did what, and what the direction of development was.

Read it all at:
http://webfools.net/filippo/desert-ratt.html

BR

Filippo/SpamHog
N1JPR/I2
http://filippo.ru.ru

1694. Info needed on Spectracom 8171A clock... Help

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-12 20:56:14 UTC
From: Dennis <Dennis_The_Menace@no_spam.net>
Message-ID: <10hnmbgs2042aac@corp.supernews.com>
Source record: 24025
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.swap,sci.electronics.design,sci.electronics.equipment,sci.electronics.misc,sci.electronics.repair

--

I have a Spectracom 8171A WWVB Synchronized clock.
Need a manual on this clock, or some good operating
information. Much appreciated.

TIA,

Dennis

1695. Re: Another HB VNA - opinions, please...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-12 21:19:57 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <cfgn2dijg1@newshost.mot.com>
Source record: 24029

"iw3hev, Davide" <iw3hev@virgilio.it> wrote in message
news:9f9dfc7c.0408120135.367e80d4@posting.google.com...
> "Steve Nosko" <suteuve.nosukowicuz@moutouroula.com> wrote in message
news:<cfdr7u$3ih$1@newshost.mot.com>...
> > "iw3hev, Davide" <iw3hev@virgilio.it> wrote in message
> > news:9f9dfc7c.0408101227.2c05c73e@posting.google.com...
> > > Paul Burridge <pb@notthisbit.osiris1.co.uk> wrote in message
> > news:<4b1ig0lk29e12hmjul3u1137g3bc3i3h9u@4ax.com>...
> > > > Hi guys,
> > > >
> > > > Just come across this design for a self-build VNA and wondered what
> > > > you thought of the spec:
> > > >
> > > > http://www.geocities.com/robert_lacoste/previous_designs.htm
> > >
> > > Hello Paul, I have a similar type under testing but limited working
> > > frequency range 1.8-60 Mhz at www.qsl.net/iw3hev. The performances are
> > > not comparable to the VNA from N2PK but is good for antenna testing.
> > > Regards
> > > iw3hev
> > > Davide
> >
> > Am I reading the block diag correctly-- in that the contest winner does
not
> > measure return parameters (S11 or S22) , but only through (S21, S12) the
> > DUT?
> > Davide's does return measurements.
>
> Steve,
> The unit performs reflection measurements using the internal
> directional coupler, the dynamic range is maximum 30 dB. For
> transmission measurements is necessary to add a second connector and a
> switch. By the switch we can change the type of the measurement from
> reflection to transmission.
> The switch will change the signals path of AD8302 inputs, for
> transmission measurement the directional coupler will became a power
> splitter (-15 dB to the first AD8302 input and the rest to the actual
> BNC connector-TX). The reflection port of the directional coupler will
> be terminated to 50 ohm only, meanwhile the second AD8302 input will
> be connected connect to the extra connector (RX). The software for
> transmission measurements is not yet ready but I believe shortly I can
> post.
> iw3hev, Davide

I am confused. Are you describing YOUR unit or the one first referred to.? I hadn't looked at your design, if it is on the web site. I was referring to the Robert Lacoste site. That block diagram has no dir coupler shown, just splitters, so it looks like a through measuring device only. Am I off base somewhere?

--
Steve N, K,9;d, c. i My email has no u's.

1696. Re: Throw away your network analyser and use Spice!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-12 21:34:15 UTC
From: Active8 <reply2group@ndbbm.net>
Message-ID: <1tn5o3q6da50q$.dlg@news.individual.net>
Source record: 24027
Cross-posted to: sci.electronics.design,sci.electronics.cad,rec.radio.amateur.homebrew

On Thu, 12 Aug 2004 13:44:11 +0100, Paul Burridge wrote:

> On Wed, 11 Aug 2004 18:59:22 -0700, John Larkin
> <jjlarkin@highlandSNIPtechTHISnologyPLEASE.com> wrote:
>
>>RFSIM99 does nice frequency-domain analysies, in all sorts of formats
>>- Smith, rectangular plots, polars, tabular s-param listings, stuff
>>like that. It does lumped parts, transmission lines, and some active
>>stuff. Free, too!
>>
>>It's in a box here, near the bottom:
>>
>>http://home.sandiego.edu/~ekim/e194rfs01/
>
> That's certainly one highly useful piece of artillery for the RF
> designer!
> I don't think it actually allows one to *extract* S- parameters
> through modling a BJT, for example.
> I haven't had the chance to check it over in detail yet, but it seems
> you have to insert already predetermined S-params from datasheets or
> wherever and it will generate matching networks from there. So it
> doesn't actually amount to a 'virtual VNA' - or does it??
>
> p.

Heh, heh, heh. You *can* measure s-params from a circuit in
(P)Spice, but Burridge has me killfiled and will never know it if no
one replies to me - not that he'd listen :)
--
Best Regards,
Mike

1697. Re: Throw away your network analyser and use Spice!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-12 21:59:28 UTC
From: Active8 <reply2group@ndbbm.net>
Message-ID: <rst7v3a282pr.dlg@news.individual.net>
Source record: 24028
Cross-posted to: sci.electronics.design,sci.electronics.cad,rec.radio.amateur.homebrew

On Thu, 12 Aug 2004 17:34:15 -0400, Active8 wrote:

> On Thu, 12 Aug 2004 13:44:11 +0100, Paul Burridge wrote:
>
>> On Wed, 11 Aug 2004 18:59:22 -0700, John Larkin
>> <jjlarkin@highlandSNIPtechTHISnologyPLEASE.com> wrote:
>>
>>>RFSIM99 does nice frequency-domain analysies, in all sorts of formats
>>>- Smith, rectangular plots, polars, tabular s-param listings, stuff
>>>like that. It does lumped parts, transmission lines, and some active
>>>stuff. Free, too!
>>>
>>>It's in a box here, near the bottom:
>>>
>>>http://home.sandiego.edu/~ekim/e194rfs01/
>>
>> That's certainly one highly useful piece of artillery for the RF
>> designer!
>> I don't think it actually allows one to *extract* S- parameters
>> through modling a BJT, for example.
>> I haven't had the chance to check it over in detail yet, but it seems
>> you have to insert already predetermined S-params from datasheets or
>> wherever and it will generate matching networks from there. So it
>> doesn't actually amount to a 'virtual VNA' - or does it??
>>
>> p.
>
<snip>

The vendor article I read has a better way to do it. Probably doable
in RFSim, too. I just looked at the moron's abse post.
--
Best Regards,
Mike

1698. Re: Error in textbook?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-12 22:06:03 UTC
From: Active8 <reply2group@ndbbm.net>
Message-ID: <10oigemnb8lo8$.dlg@news.individual.net>
Source record: 24031
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Wed, 11 Aug 2004 21:19:04 +0100, Paul Burridge wrote:

> On Wed, 11 Aug 2004 13:01:51 -0700, John Larkin
> <jjlarkin@highSNIPlandTHIStechPLEASEnology.com> wrote:
>
>>Oh, the skin depth equation on p 10 is apparently wrong, too.
>
> Excellent, John. Many thanks. It's reassuring you've seen the actual
> book for yourself, but it would have been better if you'd have hung
> fire until Active8 or someone else impulsive jumped in and accused me
> of getting it all wrong. There are quite a few stoopid errors in this
> otherwise excellent book. This one was just a bit more obvious than
> the others. :-)
> Thanks again for the prompt response.

Hey POS troll. How would you see it if I'm kill filed?
--
No Regards,
Mike

1699. Re: Focus on Tek 2236 Scope

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-12 22:07:24 UTC
From: Dennis <Dennis_The_Menace@no_spam.net>
Message-ID: <10hnqgui80c74b7@corp.supernews.com>
Source record: 24030

In article <10rkh0d5umtvmeofhhb7uqnn3gfeohvd3v@4ax.com>, me@hutmail.invalid
says...
>
>
>On Tue, 10 Aug 2004 17:33:58 -0700, "Michael Melland"
><w9wis@charter.net> wrote:
>
>>IIRC there are 5ea 1/2 watt 1meg or 510K (value depends on scope model)
>>Ohm carbon resistors in there as a focus string that age and get flakey that
>>very often causes this problem. They are in a row by the focus pot on the
>>main board..... check those and replace if off value or open. I had a 2235
>>with the same problem once .... Jim Yanik, an ex Tek employee gave me this
>>info and it fixed mine.
>>
>>That said...BE CAREFUL in a scope..... HIGH VOLTAGE present.... 20,000
>>volts. Don't go inside unless you know what you are doing.
>>
>>Mike, W9WIS
>>
>
>I see the 510Ks in the circuit diagram, so this seems like a good place
>to start looking. Thanks for the tip.
>
>I've worked on HV stuff before, so I think I can avoid killing myself.

Can I have your scope if you do.
>
>

--

1700. easy to made cb reciever

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-12 22:21:15 UTC
From: sipa <sipa@hrtv.net>
Message-ID: <cfgqha$gf8$1@ls219.htnet.hr>
Source record: 24032

anyone have schematics/project or link to it to built one channel, easy to make, reciever of 27 mhz cb freq. ?

i must find some cheep reciever for channel 12, and that reciever will be connected to cwdecoder on pc... (pc will watch cw on that channel... for using in case of emergency)

thanx and sorry for my bad english :)

73, de 328su035

1701. Re: Metric PL259?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-12 22:31:52 UTC
From: Prometheus <Prometheus@127.0.0.1>
Message-ID: <X9TGLDY+GBFwPa@newbrain.demon.co.uk>
Source record: 24034
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

In article <2nsidjF450etU1@uni-berlin.de>, Airy R. Bean <me@privacy.net>
writes
>It is standard practice when you have a tight/rusty screw but neither
>the tap nor the die for the thread to drive a nut against the
>corrosion.

It is stupid practice with any RF co-axial connector, you do NOT want
corrosion in the signal path.
--
Ian G8ILZ

1702. Re: Measuring transitor impedances

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-12 22:35:54 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <n3snh0hdtv4mdeka8qq8dne53v9ucspg9q@4ax.com>
Source record: 24033

On Thu, 12 Aug 2004 15:32:00 -0500, "Steve Nosko"
<suteuve.nosukowicuz@moutouroula.com> wrote:

>Lets think about this phase thing, however. As long as there is the proper
>phase cancellation _in_ the splitter, it will balance. This doesn't mean
>that it is flat, does it? You'll be sampling the forward power somehow and
>the reverse power with one of these and you need to have them both constant
>with respect to each other--otherwise you cant measure phase.. If the fwd
>sampler is the same thing do you get matching characteristics (ignore
>secondary imperfections for now). I don't know how good ones are made, so I
>have know first hand knowledge.

Let's assume for one moment the splitter idea would function
acceptably as a directional coupler for this purpose. What's next in
the block diagram? Phase comparitor? DC amp?

--

"What is now proved was once only imagin'd." - William Blake, 1793.

1703. Re: Error in textbook?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-12 22:37:40 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <98snh0dbe0lq7n244a0tu81n43iv81id2f@4ax.com>
Source record: 24035

On 12 Aug 2004 17:41:08 GMT, crabtreejr@aol.com (John Crabtree) wrote:

>Do you have the original edition ca. 1983, or what amazon.com descibes as the
>Newnes Reprint edition of 1997 ?
>
>I too have seen mistakes in the 1983 edition. It would be a pity if these were
>not corrected in the reprint. Does any body have good information on this ?

My copy's the later one (but it's already looking very much older):-)
--

"What is now proved was once only imagin'd." - William Blake, 1793.

1704. Re: Error in textbook?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-12 22:54:55 UTC
From: Active8 <reply2group@ndbbm.net>
Message-ID: <923u1487lojc$.dlg@news.individual.net>
Source record: 24036
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Wed, 11 Aug 2004 12:59:22 -0700, John Larkin wrote:

> On Wed, 11 Aug 2004 20:46:24 +0100, Paul Burridge
> <pb@notthisbit.osiris1.co.uk> wrote:
>
>>Hi all,
>>
>>In his very skimpy explanation on basic DC biasing for FETs, Chris
>>Bowick (in RF Circuit Design) gives the suggested bias network that
>>I've posted to a.b.s.e under the same subject title as this message.
>>I don't see how this arrangement can possibly work for any N-Jfet
>>since for one thing at least, the gate is positive with respect to the
>>source. I've tried to scan the page in and post that, but the
>>scanner's messing about, so I've redrawn it as a spice schematic and
>>posted that instead. If it turns out the arrangement is incorrect, as
>>I suspect, I will endeavor to post his explanation for how he arrived
>>at these resistor values.
>>So: is he wrong or am I nuts?
>>
>>p.
>>
>>Note: for anyone using LTspice, the fet shown is not a working model;
>>I'm simply posting this as a diagram for illustration.
>
> Looks like the jfet will be saturated with the values shown, not good
> for RF work. Looks like he got the sign of Vgs backwards.

Well, when you rearrange the Id eq to get Vgs, you get

```
[ ]
| |
| ( ) |
| | I | |
| | D | |
V = -Vp| sqrt| ------- | - 1 |
GS | | I | |
| | DSS | |
| ( ) |
| |
[ ]
```

You can swap the terms inside the brackets by moving the negative
sign of Vp inside, which gives you Bowick's version. Either way, you
get the wrong answer unless you recall that

sqrt(4) = +/- 2

So you have to apply some reasoning.

Thus (3 dots in a triangle) Burridge = idiot^100.

QED

> The next
> example on the same page illustrates that Vg must be near zero, not
> +5. Really silly, putting these two circuits side-by-side.
>
> John

--
Best Regards,
Mike

1705. Re: Error in textbook?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-12 22:57:34 UTC
From: Active8 <reply2group@ndbbm.net>
Message-ID: <ecux9p93lduk.dlg@news.individual.net>
Source record: 24037
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Thu, 12 Aug 2004 08:28:41 -0700, John Larkin wrote:

> On Thu, 12 Aug 2004 02:58:57 GMT, Fred Bloggs <nospam@nospam.com>
> wrote:
>
>>
>>
>>John Larkin wrote:
>>
>>>
>>>> Looks like the jfet will be saturated with the values shown, not good
>>>> for RF work. Looks like he got the sign of Vgs backwards. The next
>>>> example on the same page illustrates that Vg must be near zero, not
>>>> +5. Really silly, putting these two circuits side-by-side.
>>>
>>>> John
>>>
>>
>>Shhhh...don't tell the resident idiot, but it's going to be damn tough
>>biasing that IDSS=5mA JFET to a quiescent ID=10ma....

LOL. That was an astute observation, not that I'm surprised. Either
I didn't read that part of the book (I have a NOV '82 Siliconix
data book that sufficed) or I blew it off.
>
> Good point. Bowick seems to be applying the jfet gate-voltage equation
> backwards to enhance it! The other example on page 120 is even
> sillier.

I *do* remember reading *that*. 0 + 2.48 = 0 for sufficiently small
values of 2.48, yup. I better compare all his refs to my own
collection of app notes in der future and check the math.
>
> Just shows you that an RF expert can't always handle DC.
>

It's his math, actually. See my other post and while you're at it,
reply to my reply to the idiot so he can see it. A blank post will
suffice >-)

--
Best Regards,
Mike

1706. Re: Error in textbook?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-12 23:12:04 UTC
From: Active8 <reply2group@ndbbm.net>
Message-ID: <ts4hh7181wdm.dlg@news.individual.net>
Source record: 24038
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Thu, 12 Aug 2004 18:54:55 -0400, Active8 wrote:

> On Wed, 11 Aug 2004 12:59:22 -0700, John Larkin wrote:
>
>> On Wed, 11 Aug 2004 20:46:24 +0100, Paul Burridge
>> <pb@notthisbit.osiris1.co.uk> wrote:
>>
>>>Hi all,
>>>
>>>In his very skimpy explanation on basic DC biasing for FETs, Chris
>>>Bowick (in RF Circuit Design) gives the suggested bias network that
>>>I've posted to a.b.s.e under the same subject title as this message.
>>>I don't see how this arrangement can possibly work for any N-Jfet
>>>since for one thing at least, the gate is positive with respect to the
>>>source. I've tried to scan the page in and post that, but the
>>>scanner's messing about, so I've redrawn it as a spice schematic and
>>>posted that instead. If it turns out the arrangement is incorrect, as
>>>I suspect, I will endeavor to post his explanation for how he arrived
>>>at these resistor values.
>>>So: is he wrong or am I nuts?
>>>
>>>p.
>>>
>>>Note: for anyone using LTspice, the fet shown is not a working model;
>>>I'm simply posting this as a diagram for illustration.
>>
>> Looks like the jfet will be saturated with the values shown, not good
>> for RF work. Looks like he got the sign of Vgs backwards.
>
> Well, when you rearrange the Id eq to get Vgs, you get
>
> [ ]
> | |
> | ( ) |
> | | I | |
> | | D | |
> V = -Vp| sqrt| ------- | - 1 |
> GS | | I | |
> | | DSS | |
> | ( ) |
> | |
> [ ]
>

> You can swap the terms inside the brackets by moving the negative
> sign of Vp inside, which gives you Bowick's version. Either way, you
> get the wrong answer unless you recall that
>
> sqrt(4) = +/- 2
>
> So you have to apply some reasoning.

Strike that. I'd didn't work. Gots me wondering WTF now.

.
. . Burridge = idiot^100.
^^^^^^^^^^^^^^^^^^^^
That still works for all values of idiot > 1.
>
> QED
>
>> The next
>> example on the same page illustrates that Vg must be near zero, not
>> +5. Really silly, putting these two circuits side-by-side.
>>
>> John

--
Best Regards,
Mike

1707. Re: easy to made cb reciever

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-12 23:20:03 UTC
From: darleyput@hotmail.com
Message-ID: <cfh3mr$bl3$1@news7.svr.pol.co.uk>
Source record: 24044

http://hem.passagen.se/sm0vpo/

might have something

1708. Re: Error in textbook?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-12 23:34:43 UTC
From: Active8 <reply2group@ndbbm.net>
Message-ID: <172hzt23t6344.dlg@news.individual.net>
Source record: 24039
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Thu, 12 Aug 2004 19:12:04 -0400, Active8 wrote:

<snip>
>>
>> So you have to apply some reasoning.
>
> Strike that. I'd didn't work. Gots me wondering WTF now.
>
> .
> . . Burridge = idiot^100.
> ^^^^^^^^^^^^^^^^^^^^
> That still works for all values of idiot > 1.
>>
>> QED
>>

Otay. You write the node eq for Vgs, expand Shockley's eq., equate
the two, rearrange, solve the quadratic and pick the correct root.

Sorry I thrashed around on that.

--
Best Regards,
Mike

1709. Re: Measuring transitor impedances

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-12 23:38:00 UTC
From: Joe Rocci <joe@roccis.com>
Message-ID: <sbTSc.7003$BS3.1582@trndny04>
Source record: 24040

Paul & Steve,

Steve,
I'm pretty confident that the phase shift will be constant and can be calibrated out. If not, it can be made irrelevant by using two splitters, one for the forward path sample and one for the return path sample.

Paul,
The idea is to use the splitter 'backwards"; drive the RF into one of the splitter legs and feed the load through the common port. Assuming good directivity, any RF coming out of the other splitter leg must be reflected energy. If you put a sample of the forward energy into a scope's X input (horizontal) and a sample of the reflected energy into the Y input (vertical), you will get an elliptical display called a Lissajous pattern. If X and Y are equal in magnitude and exactly 90 deg out of phase, this will be a perfect circle. Any other phase angle will result in a elliptical pattern whose inclination angle relative to the X axis (or Y axis) is a function of the phase angle. The length of the ellipse is a function of the magnitude. This is classic stuff...look it up if you're not familiar with it.

Joe
W3JDR

Paul Burridge <pb@notthisbit.osiris1.co.uk> wrote in message news:n3snh0hdtv4mdeka8qq8dne53v9ucspg9q@4ax.com...
> On Thu, 12 Aug 2004 15:32:00 -0500, "Steve Nosko"
> <suteuve.nosukowicuz@moutouroula.com> wrote:
>
>
> >Lets think about this phase thing, however. As long as there is the proper
> >phase cancellation _in_ the splitter, it will balance. This doesn't mean
> >that it is flat, does it? You'll be sampling the forward power somehow and
> >the reverse power with one of these and you need to have them both constant
> >with respect to each other--otherwise you cant measure phase.. If the fwd
> >sampler is the same thing do you get matching characteristics (ignore
> >secondary imperfections for now). I don't know how good ones are made, so I
> >have know first hand knowledge.
>
> Let's assume for one moment the splitter idea would function

> acceptably as a directional coupler for this purpose. What's next in
> the block diagram? Phase comparitor? DC amp?
>
> --
>
> "What is now proved was once only imagin'd." - William Blake, 1793.

1710. Re: Error in textbook?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-12 23:47:30 UTC
From: John Larkin <jjlarkin@highSNIPlandTHIStechPLEASEnology.com>
Message-ID: <660oh01ku3ae1uqom6e2pt48r3sq0ltba7@4ax.com>
Source record: 24041
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Thu, 12 Aug 2004 18:57:34 -0400, Active8 <reply2group@ndbbm.net>
wrote:

>I *do* remember reading *that*. 0 + 2.48 = 0 for sufficiently small
>values of 2.48, yup.

Now *that's* funny!

Too bad Paul won't see it!

John

1711. Re: Measuring transitor impedances

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-12 23:53:22 UTC
From: Alfred Lorona <w6wqc@dslextreme.com>
Message-ID: <2o2e8jF68iqtU1@uni-berlin.de>
Source record: 24042

Check out the article 'A Low-Cost 100 MHz Vector Network Analyzer with USB Interface' in the July/August 2004 issue of QEX, for measuring S pars.

Al, w6wqc

1712. Re: Error in textbook?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-13 00:07:12 UTC
From: Active8 <reply2group@ndbbm.net>
Message-ID: <5wvubdy8l5r2.dlg@news.individual.net>
Source record: 24043
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Thu, 12 Aug 2004 16:47:30 -0700, John Larkin wrote:

> On Thu, 12 Aug 2004 18:57:34 -0400, Active8 <reply2group@ndbbm.net>
> wrote:
>
>>I *do* remember reading *that*. 0 + 2.48 = 0 for sufficiently small
>>values of 2.48, yup.
>
> Now *that's* funny!
>
> Too bad Paul won't see it!
>
> John

Based on some recent posts, I suspect that duplicitous white trash POS is reading my posts despite his blasting JT for "not sticking to his [ctrl-k] guns" just to see what I'm saying behind his back. It's not really backstabbing since it's out in the open and I'd say it to his face before I rearrange it like so much algebra.

I think he needs a good old fashioned hillbilly ass-whoopin' what with the way he's flaming a few of us and making hillbilly slurs.

Apologies again for the multiple replies to self while working this out. That Siliconix book used design curves and iterative stuff.

I'd be impressed if SFB Burridge (rhymes with porridge - like the space between his audio sensors) could solve the bias net (or any net) on his own.
--
Best Regards,
Mike

1713. Re: easy to made cb reciever

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-13 01:06:39 UTC
From: Henry Kolesnik <kolesnik@sbcglobal.net>
Message-ID: <zuUSc.2146$el2.1871@newssvr22.news.prodigy.com>
Source record: 24045

In the USA you can find used CBs for less than $5.00, but maybe where you
are that isn't possilbe?

--
73
Hank WD5JFR
"sipa" <sipa(izbrisi)@hrtv.net> wrote in message
news:cfgqha$gf8$1@ls219.htnet.hr...
> anyone have schematics/project or link to it to built one channel, easy to
> make, reciever of 27 mhz cb freq. ?
>
> i must find some cheep reciever for channel 12, and that reciever will be
> connected to cwdecoder on pc... (pc will watch cw on that channel... for
> using in case of emergency)
>
> thanx and sorry for my bad english :)
>
> 73, de 328su035
>
>

1714. Re: Error in textbook?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-13 03:49:15 UTC
From: kensmith@green.rahul.net
Message-ID: <cfhdnrjt5@blue.rahul.net>
Source record: 24046
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

In article <411ADCD8.7000307@nospam.com>,
Fred Bloggs <nospam@nospam.com> wrote:
>
>
>John Larkin wrote:
>
>>
>> Looks like the jfet will be saturated with the values shown, not good
>> for RF work. Looks like he got the sign of Vgs backwards. The next
>> example on the same page illustrates that Vg must be near zero, not
>> +5. Really silly, putting these two circuits side-by-side.
>>
>> John
>>
>
>Shhhh...don't tell the resident idiot, but it's going to be damn tough
>biasing that IDSS=5mA JFET to a quiescent ID=10ma....

Theres no problem getting 10mA to flow in a FET with Idss of 5mA. Just
apply a positive bias to the gate. I've had as much as 2 or 3 A flow
through a JFET this way.

--
--
kensmith@rahul.net forging knowledge

1715. Re: easy to made cb reciever

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-13 10:04:04 UTC
From: sipa <sipa@hrtv.net>
Message-ID: <cfi3n3$v41$1@ls219.htnet.hr>
Source record: 24047

> In the USA you can find used CBs for less than $5.00, but maybe where you
> are that isn't possilbe?
>
> --
> 73
> Hank WD5JFR

well, price of used cb's heare is about $30, but theare is no many used
radios on market...
another problem is that cb transciever legaly must be registered (and payed
fee), but reciever dont need it...

best regards from sunny Croatia! (9A, 328, HR)
www.hr
and my hometown www.sibenik.hr

1716. Re: easy to made cb reciever

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-13 10:15:49 UTC
From: sipa <sipa@hrtv.net>
Message-ID: <cfi4d4il1@ls219.htnet.hr>
Source record: 24048

> http://hem.passagen.se/sm0vpo/
>
> might have something

sorry, not found :(

1717. Re: Error in textbook?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-13 11:02:24 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <uq7ph0tgmdh9cb83mr04p3idb8a9v4rmbm@4ax.com>
Source record: 24049
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Fri, 13 Aug 2004 03:49:15 +0000 (UTC), kensmith@green.rahul.net
(Ken Smith) wrote:

>Theres no problem getting 10mA to flow in a FET with Idss of 5mA. Just
>apply a positive bias to the gate. I've had as much as 2 or 3 A flow
>through a JFET this way.

How many mS did the Fet last? I suppose you could always stand there
with a can of arctic spray directed on it, but I doubt the customer
would be impressed. ;-)
--

"What is now proved was once only imagin'd." - William Blake, 1793.

1718. Re: Measuring transitor impedances

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-13 11:10:53 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <ib8ph09skupabid73aor7s97sotpi4sfsf@4ax.com>
Source record: 24050

On Thu, 12 Aug 2004 23:38:00 GMT, "Joe Rocci" <joe@roccis.com> wrote:

>Paul & Steve,
>
>Steve,
>I'm pretty confident that the phase shift will be constant and can be
>calibrated out. If not, it can be made irrelevant by using two splitters,
>one for the forward path sample and one for the return path sample.
>
>Paul,
>The idea is to use the splitter 'backwards"; drive the RF into one of the
>splitter legs and feed the load through the common port. Assuming good
>directivity, any RF coming out of the other splitter leg must be reflected
>energy. If you put a sample of the forward energy into a scope's X input
>(horizontal) and a sample of the reflected energy into the Y input
>(vertical), you will get an elliptical display called a Lissajous pattern.
>If X and Y are equal in magnitude and exactly 90 deg out of phase, this
>will be a perfect circle. Any other phase angle will result in a elliptical
>pattern whose inclination angle relative to the X axis (or Y axis) is a
>function of the phase angle. The length of the ellipse is a function of the
>magnitude. This is classic stuff...look it up if you're not familiar with

THanks for the explanation, but I doubt this idea has enough accuracy
for determining the parameters within any acceptable degree. Neat
concept, though!
--

"What is now proved was once only imagin'd." - William Blake, 1793.

1719. Re: Error in textbook?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-13 11:25:30 UTC
From: Fred Bloggs <nospam@nospam.com>
Message-ID: <411CA517.4000407@nospam.com>
Source record: 24051
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

Paul Burridge wrote:
> On Fri, 13 Aug 2004 03:49:15 +0000 (UTC), kensmith@green.rahul.net
> (Ken Smith) wrote:
>
>
>>Theres no problem getting 10mA to flow in a FET with Idss of 5mA. Just
>>apply a positive bias to the gate. I've had as much as 2 or 3 A flow
>>through a JFET this way.
>
>
> How many mS did the Fet last? I suppose you could always stand there
> with a can of arctic spray directed on it, but I doubt the customer
> would be impressed. ;-)

Actually there have been systems produced that did run quite hot and
were arranged with a liquid nitrogen drip onto the electronics to keep
things cool.

1720. Re: Measuring transitor impedances

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-13 12:02:26 UTC
From: W3JDR <joe@roccis.com>
Message-ID: <m52Tc.8074$K82.266@trndny01>
Source record: 24052

Paul,
I agree. That's why I started out by saying it was a wacky idea.

Things like this make you think though. Sometimes those types of musings pay off later down the road. One of my mentors once said: "A good engineer remembers every good idea he ever heard. The only thing he forgets is who he heard it from".

Joe
W3JDR

"Paul Burridge" <pb@notthisbit.osiris1.co.uk> wrote in message news:ib8ph09skupabid73aor7s97sotpi4sfsf@4ax.com...
> On Thu, 12 Aug 2004 23:38:00 GMT, "Joe Rocci" <joe@roccis.com> wrote:
>
> >Paul & Steve,
> >
> >Steve,
> >I'm pretty confident that the phase shift will be constant and can be
> >calibrated out. If not, it can be made irrelevant by using two splitters,
> >one for the forward path sample and one for the return path sample.
> >
> >Paul,
> >The idea is to use the splitter 'backwards"; drive the RF into one of the
> >splitter legs and feed the load through the common port. Assuming good
> >directivity, any RF coming out of the other splitter leg must be reflected
> >energy. If you put a sample of the forward energy into a scope's X input
> >(horizontal) and a sample of the reflected energy into the Y input
> >(vertical), you will get an elliptical display called a Lissajous pattern.
> >If X and Y are equal in magnitude and exactly 90 deg out of phase, this
> >will be a perfect circle. Any other phase angle will result in a elliptical
> >pattern whose inclination angle relative to the X axis (or Y axis) is a
> >function of the phase angle. The length of the ellipse is a function of the
> >magnitude. This is classic stuff...look it up if you're not familiar with
>
> THanks for the explanation, but I doubt this idea has enough accuracy
> for determining the parameters within any acceptable degree. Neat
> concept, though!
> --
>
> "What is now proved was once only imagin'd." - William Blake, 1793.

1721. Re: Error in textbook?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-13 12:54:14 UTC
From: mikea@mikea.ath.cx
Message-ID: <cfidlm$hb3$1@puck.litech.org>
Source record: 24053
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

In <411CA517.4000407@nospam.com> (rec.radio.amateur.homebrew), Fred Bloggs wrote:

> Paul Burridge wrote:
> > On Fri, 13 Aug 2004 03:49:15 +0000 (UTC), kensmith@green.rahul.net
> > (Ken Smith) wrote:
> >
> >
> >>Theres no problem getting 10mA to flow in a FET with Idss of 5mA. Just
> >>apply a positive bias to the gate. I've had as much as 2 or 3 A flow
> >>through a JFET this way.
> >
> >
> > How many mS did the Fet last? I suppose you could always stand there
> > with a can of arctic spray directed on it, but I doubt the customer
> > would be impressed. ;-)

> Actually there have been systems produced that did run quite hot and
> were arranged with a liquid nitrogen drip onto the electronics to keep
> things cool.

One model of Seymour Cray's computers ran with the logic immersed in
a bath of chilled Fluorinert or some such, with a fairly hefty pump
to keep the coolant recirculating through the chiller.

--
Paul Raj Khangure mumbled:
> Every time someone calls Java a programming language a fairy dies?
From frustration, if nothing else.
DaZZa, in a.t-s.r

1722. Re: Measuring transitor impedances

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-13 14:24:10 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <0mjph0d6q8rcio44msakj9i5oe55trklk5@4ax.com>
Source record: 24054

On Fri, 13 Aug 2004 12:02:26 GMT, "W3JDR" <joe@roccis.com> wrote:

>Paul,
>I agree. That's why I started out by saying it was a wacky idea.
>
>Things like this make you think though. Sometimes those types of musings pay
>off later down the road. One of my mentors once said: "A good engineer
>remembers every good idea he ever heard. The only thing he forgets is who he
>heard it from".

Too true!
Well don't forget this one; there's certainly a seed of possibility
there, bar a few inevitable hurdles to overcome.
--

"What is now proved was once only imagin'd." - William Blake, 1793.

1723. Re: easy to made cb reciever

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-13 14:28:17 UTC
From: xpyttl <xpyttl_NOSPAM@earthling.net>
Message-ID: <10hpk0jmskcgoec@corp.supernews.com>
Source record: 24055

"sipa" <sipa(izbrisi)@hrtv.net> wrote in message
news:cfi3n3$v41$1@ls219.htnet.hr...
> another problem is that cb transciever legaly must be registered (and
payed
> fee), but reciever dont need it...
>
> best regards from sunny Croatia! (9A, 328, HR)
> www.hr
> and my hometown www.sibenik.hr

Sipa

Thank you for the nice links. Although the language is something of a barrier over on this side of the pond, "Foto-galerija" isn't so tough to figure out <g> Looks like a pretty town.

A single frequency receiver should be fairly simple to build. Unfortunately, most of the really simple things you see online are transceivers, and those are typically for 7 MHz, which is a slightly different problem than 27 MHz.

If you don't need a lot of sensitivity, and since you are interested in receiving CW, you may be able to rip off one of the many designs that use a VXO and a 602 mixer in a direct conversion design. I haven't personally built such a thing for 27 MHz, but I have had some success at 21 MHz with a dirt-simple design.

One challenge you will have is that the simplest designs rely on a crystal for your receiving frequency. These need to be custom made and as a result are fairly expensive (around 12 euro). An alternative is to use a programmable oscillator. These are a lot cheaper (under 3 euro) but are far from ideal for a receiver. Nevertheless, if you don't have strong stations nearby your channel 12 signal, it might be useable. Again, I have made this work at 21 MHz, but it is far from perfect.

One confusing factor ... the NE602 mixer, which is very popular for this sort of circuit, has undergone a number of changes in manufacturer and testing protocols. The result is that, although the circuits usually call for an NE602, you usually can't get one of those. However, the NE602, NE612, SA602 and SA612 are all the same part. The 604/605/614/615 are the same part with some extra stuff on the chip that you don't need to use.

You might put some sort of filter in front of the 602, but basically your antenna goes into the 602's RF port. The crystal or programmable oscillator goes into the LO port, and the audio out is taken into an amplifier chip like the LM396 or 380. The only hard part is that you need to be a little

careful about lead lengths because both the 602 and the 396 have astonishing amounts of gain and want to oscillate if you look at them the wrong way!

If you rummage around on the web, you will probably find hundreds of receivers with this basic model, although not for 27 MHz. All you need to do is recalculate the stuff between the 602 and the antenna for 27 MHz instead of the frequency for the model you find. You will want more gain at 27 MHz than for 7, so you may want to take a look at the 396/380 combination that Elecraft uses in the K1 instead of the lone 396 that many designs use, depending on how much audio you need. My 21 MHz receiver using only a 396 was pretty marginal, although useable.

The other issue with the 602 is that it is prone to issues with nearby signals. In western Europe this is a big problem at the lower frequencies where the airwaves are very crowded. If you have plenty of strong signals close to your channel 12 signal you may need to go to a different approach. The problem is that the passive mixers that work well in this environment do require additional circuitry, which is significant when you are aiming for as cheap and simple as possible.

Hope this helps a bit

..

1724. Re: easy to made cb reciever

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-13 14:57:31 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <bjlph0p9f2qfso20g0huj4ie0lskfao8ge@4ax.com>
Source record: 24056

On Fri, 13 Aug 2004 12:04:04 +0200, "sipa" <sipa(izbrisi)@hrtv.net>
wrote:

>> In the USA you can find used CBs for less than $5.00, but maybe where you
>> are that isn't possilbe?
>>
>> --
>> 73
>> Hank WD5JFR
>
>well, price of used cb's heare is about $30, but theare is no many used
>radios on market...
>another problem is that cb transciever legaly must be registered (and payed
>fee), but reciever dont need it...

You're kiddin'? Even proper communications TXs don't have to be
"registered" in the UK. What on earth's the point? They don't put out
any sort of ident. :-/
--

"What is now proved was once only imagin'd." - William Blake, 1793.

1725. Re: Measuring transitor impedances

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-13 15:03:51 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <cfild7$sa2$1@newshost.mot.com>
Source record: 24057

"Joe Rocci" <joe@roccis.com> wrote in message
news:sbTSc.7003$BS3.1582@trndny04...
> Paul & Steve,
>
> Steve,
> I'm pretty confident that the phase shift will be constant and can be
> calibrated out. If not, it can be made irrelevant by using two splitters,
> one for the forward path sample and one for the return path sample.
>
> Paul,
> The idea is to use the splitter 'backwards"; drive the RF into one of the
> splitter legs and feed the load through the common port. Assuming good
> directivity, any RF coming out of the other splitter leg must be reflected
> energy. If you put a sample of the forward energy into a scope's X input
> (horizontal) and a sample of the reflected energy into the Y input
> (vertical), you will get an elliptical display called a Lissajous pattern.
> If X and Y are equal in magnitude and exactly 90 deg out of phase, this
> will be a perfect circle. Any other phase angle will result in a
elliptical
> pattern whose inclination angle relative to the X axis (or Y axis) is a
> function of the phase angle. The length of the ellipse is a function of
the
> magnitude. This is classic stuff...look it up if you're not familiar with
> it.
> Joe
> W3JDR

You guys seem too negative. I know I was pointing out difficulties, but
only to keep the limitations in mind. Actually, it ain't that wacky. It is
EXACTLY how the Professional equipment does it, just with really good
couplers etc... As long as the phase and magnitude can either be controlled
or known and calibrated out, it should be pretty good.

If you have a scope that can go to the frequency of interest, you have a
really good basis for success.
The one thing I couldn't get fixed in my mind is the phase considerations of
using one splitter for forward sampling and one for reverse. Two things to
consider are:
1- As the freq gets higher, the phase of the FWD sample and REV samples get
"further apart" since they can not be at exactly at the same point on the
t-line, namely the load. Therefore, you have to adjust the line lengths to
'move' them to the same virtual point. Perhaps at HF this is a don't care.
I'm used to doing this @ > 150 MHz.
2- If you are in a region where there is a phase change with frequency in
the splitter/coupler, are you sure that it is the same in both directions,

or does it not work that way and will it work to increase the error rather than both of them tracking together. I just can't model this in my brain without putting some things on paper... I guess, with the scope, you can examine that and make adjustments for it by using "calibration loads" just like the calibration kits used by the pros.

I still believe the Lissajous (I'm sure glad you can spell that) method is not as good as simply measuring phase shift between the two signals directly in normal scope mode. With the Lissajous, it is harder to get the magnitudes equal and then measure random angles from the "tilt" of the oval. Don't the Lissajous formulas all assume equal magnitude sine waves? You'd have to compare amplitudes in normal mode and adjust the vert gain to set them equal anyway, so why not just set the horizontal sweep speed for a 'nice' speed and then the shift is on a calibrated scale. 9 divisions for a 1/2 cycle and you have 20 degrees per cm and the little divisions are 4 and you estimate from there. This way the phase measurement is almost 100% independent of amplitude 'cuz you're looking only @ the zero crossings. I don't think you can estimate 4 degrees on a Lissajous that easily.

I still wonder WHAT kind of transistors the OP wanted to measure...

--
Steve N, K,9;d, c. i My email has no u's.

1726. Re: Measuring transitor impedances

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-13 16:18:29 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <vcqph0hqr2ggh58ftln86oem1bi47b0ble@4ax.com>
Source record: 24058

On Fri, 13 Aug 2004 10:03:51 -0500, "Steve Nosko"
<suteuve.nosukowicuz@moutouroula.com> wrote:

> I still wonder WHAT kind of transistors the OP wanted to measure...

Nothing toooo special: 2N5109s and that ilk.

--

"What is now proved was once only imagin'd." - William Blake, 1793.

1727. Re: Error in textbook?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-13 16:42:13 UTC
From: John Larkin <jjlarkin@highSNIPlandTHIStechPLEASEnology.com>
Message-ID: <khrph011a4dotsrn0qtt6vgb1u4vebnskb@4ax.com>
Source record: 24059
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Fri, 13 Aug 2004 03:49:15 +0000 (UTC), kensmith@green.rahul.net
(Ken Smith) wrote:

>In article <411ADCD8.7000307@nospam.com>,
>Fred Bloggs <nospam@nospam.com> wrote:
>>
>>
>>John Larkin wrote:
>>
>>>
>>>> Looks like the jfet will be saturated with the values shown, not good
>>>> for RF work. Looks like he got the sign of Vgs backwards. The next
>>>> example on the same page illustrates that Vg must be near zero, not
>>>> +5. Really silly, putting these two circuits side-by-side.
>>>>
>>>> John
>>>>
>>
>>Shhhh...don't tell the resident idiot, but it's going to be damn tough
>>biasing that IDSS=5mA JFET to a quiescent ID=10ma....
>
>Theres no problem getting 10mA to flow in a FET with Idss of 5mA. Just
>apply a positive bias to the gate. I've had as much as 2 or 3 A flow
>through a JFET this way.
>
>

Jfets make pretty good pA-leakage diodes, although the series
resistance tends to be higher than for a "real" diode. Never tried one
as a power rectifier.

Jfets don't enhance much, but gaasfets - especially phemts - enhance a
lot, typically 1.6 * Idss just before the gate begins conducting in
earnest. That can be useful.

John

1728. Re: easy to made cb reciever

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-13 16:42:29 UTC
From: Cheetah <elgordo@mohna.com>
Message-ID: <Vb6Tc.23584$Jp6.12521@newsread3.news.atl.earthlink.net>
Source record: 24060

Uh...he's not in the UK.

He's in Croatia

"Paul Burridge" <pb@notthisbit.osiris1.co.uk> wrote in message
news:bjlph0p9f2qfso20g0huj4ie0lskfao8ge@4ax.com...
> On Fri, 13 Aug 2004 12:04:04 +0200, "sipa" <sipa(izbrisi)@hrtv.net>
> wrote:
>
> >> In the USA you can find used CBs for less than $5.00, but maybe where
you
> >> are that isn't possilbe?
> >>
> >> --
> >> 73
> >> Hank WD5JFR
> >
> >well, price of used cb's heare is about $30, but theare is no many used
> >radios on market...
> >another problem is that cb transciever legaly must be registered (and
payed
> >fee), but reciever dont need it...
>
> You're kiddin'? Even proper communications TXs don't have to be
> "registered" in the UK. What on earth's the point? They don't put out
> any sort of ident. :-/
> --
>
> "What is now proved was once only imagin'd." - William Blake, 1793.

1729. Re: Measuring transitor impedances

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-13 17:05:16 UTC
From: W3JDR <joe@roccis.com>
Message-ID: <gx6Tc.85$zO3.67@trndny05>
Source record: 24061

Steve,

I'm making this up as I go along and I haven't actually tried it, so I might be off here and there. I already realized that my previous explanation of how the Lissajous pattern should be interpreted is wrong. I think it's more like this: Two signals (X and Y inputs to the scope) with equal amplitude and phase signals will produce a straight line with 45 deg inclination. Varying the magnitude of the reflection signal (assume it's on the Y axis) will move the inclination angle of the pattern up and down. Any phase difference will cause the line to open up into an elliptical shape, where the "eye opening" of the ellipse is proportional to phase difference. At 90 deg, the ellipse will be perfectly circular. Let me know if that explanation holds water better.

> 1- As the freq gets higher, the phase of the FWD sample and REV samples get
> "further apart" since they can not be at exactly at the same point on the
> t-line, namely the load. Therefore, you have to adjust the line lengths to
> 'move' them to the same virtual point. Perhaps at HF this is a don't care.
> I'm used to doing this @ > 150 MHz.
> 2- If you are in a region where there is a phase change with frequency in
> the splitter/coupler, are you sure that it is the same in both directions,
> or does it not work that way and will it work to increase the error rather
> than both of them tracking together. I just can't model this in my brain
> without putting some things on paper... I guess, with the scope, you can
> examine that and make adjustments for it by using "calibration loads" just
> like the calibration kits used by the pros.

Well, in as much as physical distance is time-delay and time-delay is phase, you're correct. However, the physical distance of each leg can be made equal, leaving only the circuit phase as an error source. I believe that the splitter should have equal phase response in both split ports (relative to the common port), otherwise you couldn't get the perfect amplitude and phase cancellation that gives rise to directivity.
>

> I still believe the Lissajous (I'm sure glad you can spell that) method is
> not as good as simply measuring phase shift between the two signals directly
> in normal scope mode. With the Lissajous, it is harder to get the
> magnitudes equal and then measure random angles from the "tilt" of the oval.
> Don't the Lissajous formulas all assume equal magnitude sine waves? You'd

> have to compare amplitudes in normal mode and adjust the vert gain to set
> them equal anyway, so why not just set the horizontal sweep speed for a
> 'nice' speed and then the shift is on a calibrated scale. 9 divisions for
a
> 1/2 cycle and you have 20 degrees per cm and the little divisions are 4
and
> you estimate from there. This way the phase measurement is almost 100%
> independent of amplitude 'cuz you're looking only @ the zero crossings. I
> don't think you can estimate 4 degrees on a Lissajous that easily.

I agree with you. The Lissajous thing popped into my mind because it's a classic. I'm not sure it's the best. Important thing is the concept that you can decompose the signal into incident and reflected components with a directional coupler (or splitter), analyze the components to determine relative amplitude and phase, and then mathematically derive any 2-port metric you want.

Joe
W3JDR

1730. Re: Focus on Tek 2236 Scope

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-13 17:14:18 UTC
From: Rex <me@hutmail.invalid>
Message-ID: <2qtph01p1vf66jddllk4fbse3epkcposvl@4ax.com>
Source record: 24062

On Thu, 12 Aug 2004 17:07:24 -0500, Dennis
<Dennis_The_Menace@no_spam.net> wrote:

>>I've worked on HV stuff before, so I think I can avoid killing myself.
>
>Can I have your scope if you do.
>>

Sure. I'll email you if it kills me.

1731. Re: Measuring transitor impedances

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-13 18:20:35 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <MPG.1b86a65043dff681989708@news-central.giganews.com>
Source record: 24063

In article <gx6Tc.85$zO3.67@trndny05>, joe@roccis.com says...
> Steve,
>
> I'm making this up as I go along and I haven't actually tried it, so I might
> be off here and there. I already realized that my previous explanation of
> how the Lissajous pattern should be interpreted is wrong. I think it's more
> like this: Two signals (X and Y inputs to the scope) with equal amplitude
> and phase signals will produce a straight line with 45 deg inclination.
> Varying the magnitude of the reflection signal (assume it's on the Y axis)
> will move the inclination angle of the pattern up and down. Any phase
> difference will cause the line to open up into an elliptical shape, where
> the "eye opening" of the ellipse is proportional to phase difference. At 90
> deg, the ellipse will be perfectly circular. Let me know if that explanation
> holds water better

The fly in the ointment is that scopes typically don't have very high
bandwidth (more than a few MHz) in X-Y mode. The X-axis amplifier
section of even a relatively-fast analog scope like the 2467 is only
rated at 3 MHz, and you'll probably get significant phase shift long
before that point is reached

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

1732. Re: easy to made cb reciever

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-13 21:22:44 UTC
From: sipa <sipa@hrtv.net>
Message-ID: <cfjbfojds1@ls219.htnet.hr>
Source record: 24064

> >> In the USA you can find used CBs for less than $5.00, but maybe where
you
> >> are that isn't possilbe?
> >>
> >> --
> >> 73
> >> Hank WD5JFR
> >
> >well, price of used cb's heare is about $30, but theare is no many used
> >radios on market...
> >another problem is that cb transciever legaly must be registered (and
payed
> >fee), but reciever dont need it...
>
> You're kiddin'? Even proper communications TXs don't have to be
> "registered" in the UK. What on earth's the point? They don't put out
> any sort of ident. :-/

Well there is some rule for 27 mhz CB transcievers. we don't need exams and similar but we must compleet some forms and send them to agency for telecomunications. in form we must write "origin of device" and type/model for homologization. Then they send us a "licence" and with that licence we dont have problems if police controls our car (with cb radios) in croatia and out of croatia, or similar...

But, form pmrs, lpds or similar any registration are not needed.... (eu laws)

1733. Re: easy to made cb reciever

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-14 01:08:43 UTC
From: Uncle Peter <radioconnectionNO@cox.netSPAM>
Message-ID: <HAdTc.14206$pT5.4781@lakeread05>
Source record: 24065

"sipa" <sipa(izbrisi)@hrtv.net> wrote in message
news:cfgqha$gf8$1@ls219.htnet.hr...
> anyone have schematics/project or link to it to built one channel, easy to
> make, reciever of 27 mhz cb freq. ?
>
> i must find some cheep reciever for channel 12, and that reciever will be
> connected to cwdecoder on pc... (pc will watch cw on that channel... for
> using in case of emergency)
>
> thanx and sorry for my bad english :)
>
> 73, de 328su035
>

What kind of "CW"? Keyed carrier or modulate tone (MCW)?

The simplest receiver you could build would be a superregenerative,
as was used in simple handhelds sold in the early 1950s. That would
work fine for MCW type signals, but would not do for keyed carrier
CW.

Peter
>

1734. Re: easy to made cb reciever

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-14 01:33:43 UTC
From: darleyput@hotmail.com
Message-ID: <cfjq71$fk6$1@news8.svr.pol.co.uk>
Source record: 24066

there is one RX from 1.5 to 120 MHz you just have to work out the coils.

1735. FA: Tektronix 494AP spectrum analyzer 10 kHz-40 GHz, many accessories

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-14 01:40:33 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <MPG.1b870d6f46a976a9989709@news-central.giganews.com>
Source record: 24067
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew,sci.electronics.equipment

Thanks for looking; please email with any questions!

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3833684760

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

1736. Re: easy to made cb reciever

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-14 02:39:14 UTC
From: rmonagha@engr.smu.edu
Message-ID: <cfju0i$3kf$1@blaze.seas.smu.edu>
Source record: 24068

see Pixie-2 cw xcvr $10 (Halted Specialties Corp. + $2 xtal + s/h) kit and
PCB; http://www.qrpp-i.com/pixie2.htm for links etc. HTH bob monaghan
--
****
* Robert Monaghan POB 752182 Southern Methodist Univ. Dallas Tx 75275 *
**********Standard Disclaimers Apply**********

1737. Re: Measuring transitor impedances

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-14 02:58:12 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10hqvu89hhee578@corp.supernews.com>
Source record: 24069

John Miles wrote:
>
> The fly in the ointment is that scopes typically don't have very high
> bandwidth (more than a few MHz) in X-Y mode. The X-axis amplifier
> section of even a relatively-fast analog scope like the 2467 is only
> rated at 3 MHz, and you'll probably get significant phase shift long
> before that point is reached
>
> -- jm

For sure, you shouldn't use an analog scope for this, for the reason John gives. In an analog scope, both the vertical amplifiers and the vertical CRT deflection system are optimized for speed, but the horizontal aren't. Even if you use identical amplifiers for X and Y, the horizontal CRT deflection structure will limit the X bandwidth, and give you considerable phase shift well below the cutoff frequency.

Modern digital scopes, on the other hand, should work equally well on the two axes.

Roy Lewallen, W7EL

1738. FA: 1923 1946 Radio Handbooks

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-14 05:34:03 UTC
From: tw@emailaccount.com
Message-ID: <d7bc9941.0408132134.6f2171db@posting.google.com>
Source record: 24070
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

1923 Radio Operator's Handbook - unusual pocket-sized book from the crystal radio era. Covers spark gap transmitters, early phone modulation, etc...

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=2262193231

And -

1946 ARRL Radio Amateur's Handbook...

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=5713991760

Hurry...auctions ends soon.

1739. Re: Info needed on Spectracom 8171A clock... Help

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-14 12:13:01 UTC
From: shoppa@trailing-edge.com
Message-ID: <bec993c8.0408140413.530d0a4d@posting.google.com>
Source record: 24071
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.swap,sci.electronics.design,sci.electronics.equipment,sci.electronics.misc,sci.electronics.repair

Dennis <Dennis_The_Menace@no_spam.net> wrote in message
news:<10hnmbgs2042aac@corp.supernews.com>...
> --
>
> I have a Spectracom 8171A WWVB Synchronized clock.
> Need a manual on this clock, or some good operating
> information. Much appreciated.

I believe that it uses the same protocols as the Spectracom
8170, which is well documented in many places including the NTP
source code. From refclock_wwvb.c:

```
* This driver supports the Spectracom Model 8170 and Netclock/2 WWVB
* Synchronized Clocks and the Netclock/GPS Master Clock. Both the WWVB
* and GPS clocks have proven reliable sources of time; however, the
* WWVB clocks have proven vulnerable to high ambient conductive RF
* interference. The claimed accuracy of the WWVB clocks is 100 us
* relative to the broadcast signal, while the claimed accuracy of the
* GPS clock is 50 ns; however, in most cases the actual accuracy is
* limited by the resolution of the timecode and the latencies of the
* serial interface and operating system.
*
* The WWVB and GPS clocks should be configured for 24-hour display,
* AUTO DST off, time zone 0 (UTC), data format 0 or 2 (see below) and
* baud rate 9600. If the clock is to used as the source for the IRIG
* Audio Decoder (refclock_irig.c in this distribution), it should be
* configured for AM IRIG output and IRIG format 1 (IRIG B with
* signature control). The GPS clock can be configured either to respond
* to a 'T' poll character or left running continuously.
*
* There are two timecode formats used by these clocks. Format 0, which
* is available with both the Netclock/2 and 8170, and format 2, which
* is available only with the Netclock/2, specially modified 8170 and
* GPS.
*
* Format 0 (22 ASCII printing characters):
*
* <cr><lf>i ddd hh:mm:ss TZ=zz<cr><lf>
*
* on-time = first <cr>
* hh:mm:ss = hours, minutes, seconds
* i = synchronization flag (' ' = in synch, '?' = out of synch)
*
```

```
* The alarm condition is indicated by other than ' ' at a, which occurs
* during initial synchronization and when received signal is lost for
* about ten hours.
*
* Format 2 (24 ASCII printing characters):
*
* <cr><lf>iqyy ddd hh:mm:ss.fff ld
*
* on-time = <cr>
* i = synchronization flag (' ' = in synch, '?' = out of synch)
* q = quality indicator (' ' = locked, 'A'...'D' = unlocked)
* yy = year (as broadcast)
* ddd = day of year
* hh:mm:ss.fff = hours, minutes, seconds, milliseconds
*
* The alarm condition is indicated by other than ' ' at a, which occurs
* during initial synchronization and when received signal is lost for
* about ten hours. The unlock condition is indicated by other than ' '
* at q.
*
* The q is normally ' ' when the time error is less than 1 ms and a
* character in the set 'A'...'D' when the time error is less than 10,
* 100, 500 and greater than 500 ms respectively. The l is normally ' ',
* but is set to 'L' early in the month of an upcoming UTC leap second
* and reset to ' ' on the first day of the following month. The d is
* set to 'S' for standard time 'I' on the day preceding a switch to
* daylight time, 'D' for daylight time and 'O' on the day preceding a
* switch to standard time. The start bit of the first <cr> is
* synchronized to the indicated time as returned.
```

Tim.

1740. Re: Info needed on Spectracom 8171A clock... Help

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-14 12:35:42 UTC
From: Dennis <Dennis_The_Menace@no_spam.net>
Message-ID: <10hs1p23tv3mdd2@corp.supernews.com>
Source record: 24072
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.swap,sci.electronics.design,sci.electronics.equipment,sci.electronics.misc,sci.electronics.repair

In article <bec993c8.0408140413.530d0a4d@posting.google.com>,
shoppa@trailing-edge.com says...
>
>
>Dennis <Dennis_The_Menace@no_spam.net> wrote in message
news:<10hnmbgs2042aac@corp.supernews.com>...
>> --
>>
>> I have a Spectracom 8171A WWVB Synchronized clock.
>> Need a manual on this clock, or some good operating
>> information. Much appreciated.
>
>I believe that it uses the same protocols as the Spectracom
>8170, which is well documented in many places including the NTP
>source code. From refclock_wwvb.c:
>
> * This driver supports the Spectracom Model 8170 and Netclock/2 WWVB
> * Synchronized Clocks and the Netclock/GPS Master Clock. Both the WWVB
> * and GPS clocks have proven reliable sources of time; however, the
> * WWVB clocks have proven vulnerable to high ambient conductive RF
> * interference. The claimed accuracy of the WWVB clocks is 100 us
> * relative to the broadcast signal, while the claimed accuracy of the
> * GPS clock is 50 ns; however, in most cases the actual accuracy is
> * limited by the resolution of the timecode and the latencies of the
> * serial interface and operating system.
> *
> * The WWVB and GPS clocks should be configured for 24-hour display,
> * AUTO DST off, time zone 0 (UTC), data format 0 or 2 (see below) and
> * baud rate 9600. If the clock is to used as the source for the IRIG
> * Audio Decoder (refclock_irig.c in this distribution), it should be
> * configured for AM IRIG output and IRIG format 1 (IRIG B with
> * signature control). The GPS clock can be configured either to respond
> * to a 'T' poll character or left running continuously.
> *
> * There are two timecode formats used by these clocks. Format 0, which
> * is available with both the Netclock/2 and 8170, and format 2, which
> * is available only with the Netclock/2, specially modified 8170 and
> * GPS.
> *
> * Format 0 (22 ASCII printing characters):
> *
> * <cr><lf>i ddd hh:mm:ss TZ=zz<cr><lf>

> *
> * on-time = first <cr>
> * hh:mm:ss = hours, minutes, seconds
> * i = synchronization flag (' ' = in synch, '?' = out of synch)
> *
> * The alarm condition is indicated by other than ' ' at a, which occurs
> * during initial synchronization and when received signal is lost for
> * about ten hours.
> *
> * Format 2 (24 ASCII printing characters):
> *
> * <cr><lf>iqyy ddd hh:mm:ss.fff ld
> *
> * on-time = <cr>
> * i = synchronization flag (' ' = in synch, '?' = out of synch)
> * q = quality indicator (' ' = locked, 'A'...'D' = unlocked)
> * yy = year (as broadcast)
> * ddd = day of year
> * hh:mm:ss.fff = hours, minutes, seconds, milliseconds
> *
> * The alarm condition is indicated by other than ' ' at a, which occurs
> * during initial synchronization and when received signal is lost for
> * about ten hours. The unlock condition is indicated by other than ' '
> * at q.
> *
> * The q is normally ' ' when the time error is less than 1 ms and a
> * character in the set 'A'...'D' when the time error is less than 10,
> * 100, 500 and greater than 500 ms respectively. The l is normally ' ',
> * but is set to 'L' early in the month of an upcoming UTC leap second
> * and reset to ' ' on the first day of the following month. The d is
> * set to 'S' for standard time 'I' on the day preceding a switch to
> * daylight time, 'D' for daylight time and 'O' on the day preceding a
> * switch to standard time. The start bit of the first <cr> is
> * synchronized to the indicated time as returned.
>
>Tim.

Tim,

thank you for your response. This clock does not receieve the WWVB signal
directly, instead it is inputed via a WWVB receiver. The receiver that
can be used are the 8160,8161, 8164, and 8165. At this point I guess I need
one of those receivers.

Dennis

--

1741. Re: Neato! Cheap VLF converter!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-14 12:39:39 UTC
From: Dennis <Dennis_The_Menace@no_spam.net>
Message-ID: <10hs20fb3cjas3b@corp.supernews.com>
Source record: 24073

In article <2nqc9dF3k1vnU1@uni-berlin.de>, kg0wx@NOSPAMyahoo.com says...
>
>
>I was going to buy a Palomar VLF converter for my FT-857D
>but stumbled on this website:
>
>http://home.att.net/~jacksonharbor/lfconv.htm
>
>For $12 shipped I got a kit which took an hour to assemble, taking
>my time & trying to do a good cosmetic job on the breathmints tin
>that holds the project.
>
>$99+shipping for the Palomar? Forget that! This thing rocks! I
>ordered the 14 mhz version and on a 134' dipole I'm hearing
>WWVB (60kc) LOUD! I'm also picking up a 100w 100' antenna
>NDB on 261 kc about S9+20. The co-ordinates for this beacon
>are about 21 miles away, due south.
>
>The DGPS signal at 306kc is even louder - S9+50!
>
>It's easy to build with only 1 trimmer cap to set the conversion
>rate. I used the program CWGET to measure WWVB at a dial
>indicated 1000hz offset. CWGET allowed me to adjust the VLF
>converter to +/- 1hz! Neato!
>
>Not too shabby for $12 shipped!
>
>Pics on request....
>
>KG0WX Ken

Did you say 1 134' dipole? Where do you live? Must not
be in the US. The dipole would be total overkill.

Dennis
>
>
>

--

1742. CTCSS Tone Encoder

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-14 14:56:48 UTC
From: Phil Green <philip.r.green@btinternet.com>
Message-ID: <cfl97g$5t2$1@hercules.btinternet.com>
Source record: 24074

Hi,
I'm looking for a source of the FX315 tone encoder ic within the UK. Has anyone found a source & what is the typical cost?

Thanks
Phil G0ELM

1743. Re: Error in textbook?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-14 16:28:00 UTC
From: Keith <krw@att.bizzzz>
Message-ID: <pan.2004.08.14.16.27.53.182915@att.bizzzz>
Source record: 24075
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Fri, 13 Aug 2004 12:54:14 +0000, Mike Andrews wrote:

> In <411CA517.4000407@nospam.com> (rec.radio.amateur.homebrew), Fred Bloggs wrote:
>
>> Paul Burridge wrote:
>> > On Fri, 13 Aug 2004 03:49:15 +0000 (UTC), kensmith@green.rahul.net
>> > (Ken Smith) wrote:
>> >
>> >
>> >>Theres no problem getting 10mA to flow in a FET with Idss of 5mA. Just
>> >>apply a positive bias to the gate. I've had as much as 2 or 3 A flow
>> >>through a JFET this way.
>> >
>> >
>> > How many mS did the Fet last? I suppose you could always stand there
>> > with a can of arctic spray directed on it, but I doubt the customer
>> > would be impressed. ;-)
>
>> Actually there have been systems produced that did run quite hot and
>> were arranged with a liquid nitrogen drip onto the electronics to keep
>> things cool.
>
> One model of Seymour Cray's computers ran with the logic immersed in
> a bath of chilled Fluorinert or some such, with a fairly hefty pump
> to keep the coolant recirculating through the chiller.

Many years before, IBM was going to use a CFC (FC86, IIRC) in much the same way. The logic modules were about 4" cubes with a multi-layer (50-60, can't remember) ceramic substrate with 100 logic chips on one side, a water-filled cold-plate on the other, and filled with the CFC. Heat was removed from back-side of the chips by boiling the CFC. I worked on a logic tester in '75 that immersed the un-encapsulated substrate into a bath of CFCs so it could be probed.

Unfortunately, boiling the CFC also distilled it, leaving any contamination on the chips. The result came to be known as the "black plague". Because of the "black plague" the "LEM" (Liquid Encapsulated Module) was replaced by a similar looking (though shorter) "TCM" (Thermal Conduction Module) which used pistons on the backside of the chips (increased to 121 chips) to transfer heat (>10W per chip, 1200W total) to the cold-plate and filled with helium. The TCMs were used throught the '80s and early '90s for the high-end ECL systems.

--
Keith

1744. D104 and the 706

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-14 17:16:40 UTC
From: pdrunen@aol.com
Message-ID: <20040814131640.12089.00003510@mb-m01.aol.com>
Source record: 24076

Hi Group,

Got a 706 which has a 500 or 600 ohm mic input impedance. I have a D104 which best I can tell has a high output impedance.

If I use a 60Hz step down transformer, say, 120V in gives 10v out, the turn ratio is 120/10 or 12:1. Given that I attach the mic output to the primary and the rig on the secondary, this should step down the impedance by a factor of 12^2 or 144 so that a D104 with 50K on the output is now seen as about 400 ohm.

Here are a few questions,

1: Will a 60Hz transformer work well keeping the base sound and pass upto 3KHz?

2: Is the calculation of the impedance correct?

3: Would the audio as seen on the secondary be reduced by a factor of 12 such that the audio would be weak?

4: Other?

Tnx de KJ4UO

1745. Re: Error in textbook?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-14 17:24:14 UTC
From: John Woodgate <jmw@jmwa.demon.contraspam.yuk>
Message-ID: <pXtvjUE+qkHBFwDy@jmwa.demon.co.uk>
Source record: 24077
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

I read in sci.electronics.design that Keith <krw@att.bizzzz> wrote (in
<pan.2004.08.14.16.27.53.182915@att.bizzzz>) about 'Error in textbook?',
on Sat, 14 Aug 2004:

>Unfortunately, boiling the CFC also distilled it, leaving any
>contamination on the chips.

Sulfur hexafluoride might have been better, but it's probably more
costly than CFCs were.
--
Regards, John Woodgate, OOO - Own Opinions Only.
The good news is that nothing is compulsory.
The bad news is that everything is prohibited.
http://www.jmwa.demon.co.uk Also see http://www.isce.org.uk

1746. Re: Error in textbook?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-14 20:53:24 UTC
From: mikea@mikea.ath.cx
Message-ID: <cflu43$7ja$3@puck.litech.org>
Source record: 24078
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

In <pan.2004.08.14.16.27.53.182915@att.bizzzz> (rec.radio.amateur.homebrew), Keith wrote:

> Unfortunately, boiling the CFC also distilled it, leaving any
> contamination on the chips. The result came to be known as the "black
> plague". Because of the "black plague" the "LEM" (Liquid Encapsulated
> Module) was replaced by a similar looking (though shorter) "TCM" (Thermal
> Conduction Module) which used pistons on the backside of the chips
> (increased to 121 chips) to transfer heat (>10W per chip, 1200W total) to
> the cold-plate and filled with helium. The TCMs were used throught the
> '80s and early '90s for the high-end ECL systems.

Yep. I've got a TCM somewhere at home; I need to take a pic of it
for my web page. IIRC, it has 1024 pins, and the largest ZIF socket
I've ever seen. The cold plate on the TCM is about 4.5" square, very
smooth, and designed to go on a larger water-cooled manifold with some
dozens more TCMs, all getting water from a chiller.

They're called "wet-frame" machines by a lot of us who dealt with
them, and especially by those of us who had a leak develop somewhere
in the cooling system.

Nowadays one TCM's circuitry fits on a single chip, at a meager
fraction of the TCM's dissipation, and is enormously faster, so that
(for 9672 hardware, anyway) IBM ships the machine with a bunch of CPUs
and licenses you the code to turn on as many as you're paying for. If
you want more than ship in the base machine, they'll install another
dozen pretty cheap.

And the homebrew and design connections:

They're sure not homebrew, and they're more than one designer can do.

--
Mike Andrews
mikea@mikea.ath.cx
Tired old sysadmin

1747. Re: development of the "Desert Ratt" regenerative receiver design

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-14 21:18:17 UTC
From: The Eternal Squire <eternalsquire@comcast.net>
Message-ID: <NYmdnfGLAocLHIPcRVn-qw@comcast.com>
Source record: 24079

Hi,

I have a question about the Desert Ratt 2... do you have any idea what
the dimensions of the form for the onboard coil are?

Thanks,

The Eternal Squire

SpamHog wrote:
> The "Desert Ratt" is a clever design for a sensitive and well behaved
> shortwave regenerative radio. It has been doing the rounds in various
> forms since 1994, and quite a few people added new twists.
>
> As I kept seeing roughly the same stuff popping up all over the place,
> and found it somewhat hard to keep track of which version was an
> improvement over another one, I did a bit of investigation to figure
> out who did what, and what the direction of development was.
>
> Read it all at:
> http://webfools.net/filippo/desert-ratt.html
>
> BR
>
> Filippo/SpamHog
> N1JPR/I2
> http://filippo.ru.ru

1748. Re: Error in textbook?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-15 00:28:09 UTC
From: Keith <krw@att.bizzzz>
Message-ID: <pan.2004.08.15.00.28.03.200235@att.bizzzz>
Source record: 24080
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Sat, 14 Aug 2004 18:24:14 +0100, John Woodgate wrote:

> I read in sci.electronics.design that Keith <krw@att.bizzzz> wrote (in
> <pan.2004.08.14.16.27.53.182915@att.bizzzz>) about 'Error in textbook?',
> on Sat, 14 Aug 2004:
>
>>Unfortunately, boiling the CFC also distilled it, leaving any
>>contamination on the chips.
>
> Sulfur hexafluoride might have been better, but it's probably more
> costly than CFCs were.

Cost? Dunno. I do know that we were paying $50/qt (IIRC) for the stuff
in '75. I wouldn't think a sulfur/fluoride brew could be made any
"cleaner" than CFCs. THe problem was the contaminants.

--
Keith

1749. Re: Error in textbook?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-15 00:40:58 UTC
From: Keith <krw@att.bizzzz>
Message-ID: <pan.2004.08.15.00.40.50.82938@att.bizzzz>
Source record: 24081
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Sat, 14 Aug 2004 20:53:24 +0000, Mike Andrews wrote:

> In <pan.2004.08.14.16.27.53.182915@att.bizzzz> (rec.radio.amateur.homebrew), Keith wrote:
>
>> Unfortunately, boiling the CFC also distilled it, leaving any
>> contamination on the chips. The result came to be known as the "black
>> plague". Because of the "black plague" the "LEM" (Liquid Encapsulated
>> Module) was replaced by a similar looking (though shorter) "TCM" (Thermal
>> Conduction Module) which used pistons on the backside of the chips
>> (increased to 121 chips) to transfer heat (>10W per chip, 1200W total) to
>> the cold-plate and filled with helium. The TCMs were used throught the
>> '80s and early '90s for the high-end ECL systems.
>
> Yep. I've got a TCM somewhere at home; I need to take a pic of it
> for my web page. IIRC, it has 1024 pins, and the largest ZIF socket
> I've ever seen.

I think you'll count a lot more than 1024 pins. The ones I worked on int the '70s had 1800. There were 1280 signal pins (I rember that name because of the logic tester - the LT1280).

> The cold plate on the TCM is about 4.5" square, very
> smooth, and designed to go on a larger water-cooled manifold with some
> dozens more TCMs, all getting water from a chiller.

Twelve TCMs for each processor, and nine for each channel (for the 3080s). A system could have upwards of a hundred of these beasts in it. Later sytems had fewer since the logic density increased. ...which is what ultmately killed them. The infrastructure was simply too expensive for the quantity needed.

> They're called "wet-frame" machines by a lot of us who dealt with them,
> and especially by those of us who had a leak develop somewhere in the
> cooling system.

Pissers, eh? I was once tasked to design a "leak detector" for exactly thi sproblem. I brought in the guts out of a toilet (complete with copper float) and told them to put these under the floor with a switch. Come on! Detect a leak in a pipe a few hundred feet long passing many gallons per minute?

> Nowadays one TCM's circuitry fits on a single chip, at a meager fraction
> of the TCM's dissipation, and is enormously faster, so that (for 9672
> hardware, anyway)

Note that the first CMOS machines were slower than those they replaced (in direct violation of IBM's "prime Directive"). THough they were significantly cheaper and with more processors (loophole alert).

> IBM ships the machine with a bunch of CPUs and
> licenses you the code to turn on as many as you're paying for. If you
> want more than ship in the base machine, they'll install another dozen
> pretty cheap.

"Install"? ;-) They'll enable as many as you want, for as long as you are paying. We called this "Rent-A-MIP". THere is even a crypto unit in there if you want to use it.

> And the homebrew and design connections:
>
> They're sure not homebrew, and they're more than one designer can do.

Yeah, there were a few designers doing this stuff. ;-)

--
Keith

1750. Re: Error in textbook?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-15 01:22:24 UTC
From: Rich Grise <null@example.net>
Message-ID: <kVyTc.6543$SC1.2068@nwrddc03.gnilink.net>
Source record: 24082
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

Keith wrote:

> On Sat, 14 Aug 2004 18:24:14 +0100, John Woodgate wrote:
>
>> I read in sci.electronics.design that Keith <krw@att.bizzzz> wrote (in
>> <pan.2004.08.14.16.27.53.182915@att.bizzzz>) about 'Error in textbook?',
>> on Sat, 14 Aug 2004:
>>
>>>Unfortunately, boiling the CFC also distilled it, leaving any
>>>contamination on the chips.
>>
>> Sulfur hexafluoride might have been better, but it's probably more
>> costly than CFCs were.
>
> Cost? Dunno. I do know that we were paying $50/qt (IIRC) for the stuff
> in '75. I wouldn't think a sulfur/fluoride brew could be made any
> "cleaner" than CFCs. THe problem was the contaminants.
>
Yeah, and whether you're working with a liquid or gas, it's the contaminants
that make it dirty. I'd think a gas could be cleaner already just by not
dissolving a bunch of solids, although the solids in suspension can be
even smaller than in a liquid. But those aren't going to condense out.
They might collect as dust, but if that's your problem, then you have
a lot worse problem than contaminated fluid!

I guess my point is, it wasn't the CFC's fault that it was contaminated.

And, FYI, AIUI, SF6 is really quite inert. You make it sound like fire
and brimstone, for heaven's sakes! ;-)

But it has raised a good question - which makes a better heat transfer
agent? Helium or SF6? (gases only, of course ;-))

Cheers!
Rich

1751. ANYONE AN EXPERT AT AGILENT ADS 1.5?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-15 01:51:10 UTC
From: radio913@aol.com
Message-ID: <1d15af91.0408141751.431d8aa7@posting.google.com>
Source record: 24083

Email me.

Slick

1752. Re: Neato! Cheap VLF converter!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-15 02:04:49 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <5xzTc.21470$fz2.2503@edtnps89>
Source record: 24084

Behold, Dave Holford signalled from keyed 4-1000A filament:

> What's odd about a 134' diople? seems pretty standard for 160M Ham work
> and with open wire feeders should be very versatile.
>
> Dave

I read that as 1,134' dipole. Fine for LowFER work :-)

--
Gregg t3h g33k
"Ratings are for transistors....tubes have guidelines"
http://geek.scorpiorising.ca

1753. Re: Saddam Hussein Found hanging in Jail Cell

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-15 02:59:52 UTC
From: Dave Bushong <dbushong@adelphia.net>
Message-ID: <PYOdnW-Dh8AjTIPcRVn-rQ@adelphia.com>
Source record: 24085
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.amateur.space,rec.radio.amateur.swap

Steve wrote:

> HERE WE GO AGAIN WITH THIS VIRUS CRAP.
> IT SHOULD READ:
> SENDER OF FALSE CRAP WITH VIRUS ATTACHED FOUND HANGING
> AT HOME BY INTERNET USERS!!
>
> davidreid@gmail.com wrote:
>
>
>>Early this morning Saddam Hussein was found to have commited suicide. The guards who check on him at regular 30 minute intervals found a suicide note at the scene which can be downloaded and read here.
>>
>> Name: SaddamFoundHanged.zip
>> SaddamFoundHanged.zip Type: Zip Compressed Data (application/x-zip-compressed)
>> Encoding: x-uuencode
>
>

Caused by people who read postings in ham groups that have nothing to do
with ham radio.

Like shooting fish in a barrel. You know who you are........

--
Please put
DBB04
somewhere in the subject line (this year) if
you reply via email, otherwise I will not get
your message. Newsgroups postings don't need it.
Thanks!

1754. Re: D104 and the 706

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-15 03:34:04 UTC
From: w4udx <w4udx@bellsouth.net>
Message-ID: <HQATc.9225$tk.4040@bignews6.bellsouth.net>
Source record: 24086

I'm no transformer expert, but the transformer you mention may be kind of lossy for an audio application. I would look for a suitable audio transformer at
www.mouser.com . I believe power transformers are wound using larger wire and forms, and are designed to be efficient at their operating frequency of 60Hz....

Mark W4UDX

"PDRUNEN" <pdrunen@aol.com> wrote in message
news:20040814131640.12089.00003510@mb-m01.aol.com...
> Hi Group,
>
> Got a 706 which has a 500 or 600 ohm mic input impedance. I have a D104 which
> best I can tell has a high output impedance.
>
> If I use a 60Hz step down transformer, say, 120V in gives 10v out, the turn
> ratio is 120/10 or 12:1. Given that I attach the mic output to the primary and
> the rig on the secondary, this should step down the impedance by a factor of
> 12^2 or 144 so that a D104 with 50K on the output is now seen as about 400 ohm.
>
> Here are a few questions,
>
> 1: Will a 60Hz transformer work well keeping the base sound and pass upto
> 3KHz?
>
> 2: Is the calculation of the impedance correct?
>
> 3: Would the audio as seen on the secondary be reduced by a factor of 12 such
> that the audio would be weak?
>
> 4: Other?
>
> Tnx de KJ4UO

1755. Re: D104 and the 706

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-15 04:03:05 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10hto3jkloool5a@corp.supernews.com>
Source record: 24087

PDRUNEN wrote:
> Hi Group,
>
> Got a 706 which has a 500 or 600 ohm mic input impedance. I have a D104 which
> best I can tell has a high output impedance.
>
> If I use a 60Hz step down transformer, say, 120V in gives 10v out, the turn
> ratio is 120/10 or 12:1. Given that I attach the mic output to the primary and
> the rig on the secondary, this should step down the impedance by a factor of
> 12^2 or 144 so that a D104 with 50K on the output is now seen as about 400 ohm.
>
> Here are a few questions,
>
> 1: Will a 60Hz transformer work well keeping the base sound and pass upto
> 3KHz?
>
> 2: Is the calculation of the impedance correct?
>
> 3: Would the audio as seen on the secondary be reduced by a factor of 12 such
> that the audio would be weak?
>
> 4: Other?
>
> Tnx de KJ4UO

You could use a simple op-amp buffer circuit, with a resistive
attenuator to knock the voltage down if necessary. Even with the 9V
battery to power the thing it'd be no larger than your transformer, and
would certainly give better audio than a power transformer.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

1756. Re: CTCSS Tone Encoder

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-15 04:15:14 UTC
From: crusty@hufflepuff.sytes.net_TAKETHISOUT
Message-ID: <nnoth05ie1gcs3p8lfq366qsj18ctafp4u@4ax.com>
Source record: 24088

On Sat, 14 Aug 2004 14:56:48 +0000 (UTC), "Phil Green"
<philip.r.green@btinternet.com> wrote:

>Hi,
>I'm looking for a source of the FX315 tone encoder ic within the UK. Has
>anyone found a source & what is the typical cost?
>
>Thanks
>Phil G0ELM
>

That part was produced by CML (formerly MX-COM) for commercial two-way radio use. It's no longer in production, so your best chance is to ring up the local two-way radio sales/service shops and ask if they have one in spares. As I dimly remember, the going price in the USA in production quantities was about $6, so you may expect quite a bit higher.

Data sheet is here:

http://www.cmlmicro.com/products/Datasheets/Docs/fx315ds.pdf

Company webpages:

http://www.cmlmicro.com

UK rep:

http://www.spectre-online.co.uk/

1757. Re: Saddam Hussein Found hanging in Jail Cell

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-15 06:18:24 UTC
From: Steve <lafayetteradio3@optonline.net>
Message-ID: <411F00FD.D3F5C885@optonline.net>
Source record: 24089
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.amateur.space,rec.radio.amateur.swap

Well to tell the truth, I have seen this crap in dozens of newsgroups
that have nothing to do with ham radio.

Dave Bushong wrote:

> Steve wrote:
>
> > HERE WE GO AGAIN WITH THIS VIRUS CRAP.
> > IT SHOULD READ:
> > SENDER OF FALSE CRAP WITH VIRUS ATTACHED FOUND HANGING
> > AT HOME BY INTERNET USERS!!
> >
> > davidreid@gmail.com wrote:
> >
> >
> >>Early this morning Saddam Hussein was found to have commited suicide. The guards who check on him at regular 30 minute intervals found a suicide note at the scene which can be downloaded and read here.
> >>
> >> Name: SaddamFoundHanged.zip
> >> SaddamFoundHanged.zip Type: Zip Compressed Data (application/x-zip-compressed)
> >> Encoding: x-uuencode
> >
> >
>
> Caused by people who read postings in ham groups that have nothing to do
> with ham radio.
>
> Like shooting fish in a barrel. You know who you are........
>
> --
> Please put
> DBB04
> somewhere in the subject line (this year) if
> you reply via email, otherwise I will not get
> your message. Newsgroups postings don't need it.
> Thanks!

1758. Re: development of the "Desert Ratt" regenerative receiver design

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-15 06:39:55 UTC
From: The Eternal Squire <eternalsquire@comcast.net>
Message-ID: <ndidnZSKG42nmILcRVn-vw@comcast.com>
Source record: 24090

SpamHog,

Here's another question:

I've been building the Desert Ratt 2 today, starting with the audio amp. Problem is that I am getting attenuation rather than amplification.

I have questions about the biasing network surrounding Q4. R9 and R10 are specified as 1.2K (1200 ohm). The schematic states that the emitter and collector voltages should be 3.0 Volts. However, my version develops an collector voltage of 7.2 Volts and an emitter voltage of 1.7 Volts. My base voltage is 1.8 Volts (which is in the ballpark of what the schematic states as should be 2.0, I am not nearly as worried about that one.

I had used a 2N3904 as recommended. On the assumption that the transistor could be bad, I subbed a 2N2222. Same result.

It seems to me there might be a misprint with respect to the values of R9 and R10.

Any ideas?

The Eternal Squire

The Eternal Squire wrote:
> Hi,
>
> I have a question about the Desert Ratt 2... do you have any idea what
> the dimensions of the form for the onboard coil are?
>
> Thanks,
>
> The Eternal Squire
>
> SpamHog wrote:
>
>> The "Desert Ratt" is a clever design for a sensitive and well behaved
>> shortwave regenerative radio. It has been doing the rounds in various
>> forms since 1994, and quite a few people added new twists.
>>
>> As I kept seeing roughly the same stuff popping up all over the place,
>> and found it somewhat hard to keep track of which version was an
>> improvement over another one, I did a bit of investigation to figure
>> out who did what, and what the direction of development was.
>>
>> Read it all at:

>> http://webfools.net/filippo/desert-ratt.html
>>
>> BR
>>
>> Filippo/SpamHog
>> N1JPR/I2
>> http://filippo.ru.ru
>
>

1759. Re: Saddam Hussein Found hanging in Jail Cell

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-15 10:32:51 UTC
From: Tom Randy <Sorry@spamsucks.net>
Message-ID: <pan.2004.08.15.10.40.25.830818@spamsucks.net>
Source record: 24091
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.amateur.space,rec.radio.amateur.swap

On Sun, 15 Aug 2004 06:18:24 +0000, Steve wrote:

> Well to tell the truth, I have seen this crap in dozens of newsgroups
> that have nothing to do with ham radio.

This kind of crap is posted in EVERY newsgroup.

1760. Re: easy to made cb reciever

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-15 10:55:09 UTC
From: sipa <sipa@hrtv.net>
Message-ID: <cfnfed$tp4$1@ls219.htnet.hr>
Source record: 24093

> What kind of "CW"? Keyed carrier or modulate tone (MCW)?

well i would preffer amplitude modulated tone....

> The simplest receiver you could build would be a superregenerative,
> as was used in simple handhelds sold in the early 1950s. That would
> work fine for MCW type signals, but would not do for keyed carrier
> CW.

wheare i can found schematics of that handhelds?

1761. High Current Horror Stories

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-15 11:01:14 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <pgguh0dee6ars3kmv3o13i7ubcmf3efqbo@4ax.com>
Source record: 24092
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur

Hi all,

Anyone got any high-current/low-voltage horror stories they'd care to
share? You know; where your messin' about with a car battery or
something like that and forget to take your watch off or whatever.

p.
--

"What is now proved was once only imagin'd." - William Blake, 1793.

1762. Re: High Current Horror Stories

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-15 11:09:03 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <jvHTc.24092$fz2.4287@edtnps89>
Source record: 24094

Hmmmmmmmmm......there was this time a few decades back a solder blob
caused a B-C short in the linear for my CB - Man, do the ceramic caps sure
fly off those MRF454's :-o

--
Gregg t3h g33k
"Ratings are for transistors....tubes have guidelines"
http://geek.scorpiorising.ca

1763. Florida Contacts

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-15 14:41:51 UTC
From: Al <no.spam@wanted.com>
Message-ID: <no.spam-E12BB1.10421015082004@news.verizon.net>
Source record: 24095

Anyone doing contacts in Port Charlotte? I have a friend there who I can't reach. Any ideas on how this could be done?

Al

1764. Re: High Current Horror Stories

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-15 15:12:54 UTC
From: DO NOT REPLY to this ADDRESS <s_p_a_m@comcast.net>
Message-ID: <411F7D73.FBED4266@comcast.net>
Source record: 24096
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur

My brother, circa 1965, was working on a six volt Chevrolet.

His ring got between the battery terminal and ground. (Don't ask me how.)

He ended up with a destroyed ring and a finger with a very painful burn around it.

No permanent damage but come to think about it he's a little weird even today. Hmmm.... but isn't everybody weird but you and me and I sometimes wonder about...

==========

This is really not low voltage high current but an event that sticks in my mind as potentially fatal.

I had a female student in one of my community college electronics class. The electronic bench where she was working had a 8 foot strip of outlets on one of the typical 1970s surface mount plug strips. She had plugged in some instrument but in retrospect she hadn't pushed the plug in completely, leaving a small amount of the metal of the plug exposed.

Around her waist she had a silver colored metal belt with a hanging end with a washer shaped end on it. It looked to me like a dog collar.

She bent over the bench to adjust something and the metal end of her belt went across the metal prongs of the plug.

RESULT = lots of sparks, a loud scream, a partially melted end to the belt and a much wiser and more careful student. (And a very relieved instructor, thankful that it hit BOTH prongs and not just one while she was holding touching a grounded instrument case.

Yes, we then moved all the plug strips on the benches where they were mounted to the bottom edge of the bench and removed them from other benches where there were adequate outlets on the plug strip on the front of the shelf along the back of the bench.

Paul Burridge wrote:

> Hi all,
>
> Anyone got any high-current/low-voltage horror stories they'd care to
> share? You know; where your messin' about with a car battery or
> something like that and forget to take your watch off or whatever.
>

> p.
> --
>
> "What is now proved was once only imagin'd." - William Blake, 1793.

--
Address is NOT monitored due to SPAM volume from newsgroups. DO NOT
REPLY to post directly.

1765. Re: High Current Horror Stories

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-15 15:19:36 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cfnuu8bkc1@sparta.btinternet.com>
Source record: 23897

The place was Hong Kong.

It was around Xmas, 1945.

I was alone in the lab.

Working on a set of airborne radar equipment strewn around the workbench.

The scanner was not rotating, just pointing out of the open window, past a Royal Navy cruiser moored in the harbour about a mile away and onwards to Victoria City with the island's mountainous peaks in the background. All displayed strong echos on the PPI on its 10-mile range.

As indicated on the PPI there was something intermittent.

I suspected a poor coaxial cable connection.

Familiarity breeds contempt.

Forgetting the equipment was still switched on I unscrewed one of the many coaxial connectors and Pye plugs.

To clear out any foreign bodies I inserted the tip of by my right forefinger into the vacant socket.

Now that particular socket was power output from the modulator unit on its way to the transmitter unit. The transmitter was a 50 Kilowatt magnetron which required unpteen thousand volts, pulsed at several hundred times persecond with a one microsecond pulse width.

How long I lay on the floor I do not know. Probably only a few seconds.

I trembled all over which passed off after a few minutes. Apart from a white burn on the afore-mentioned fingertip the after-effects were sychological - it took several days to pluck up courage just to re-enter the lab when I had difficulty looking in the direction of the offending plug and socket.

Reg, G4FGQ

1766. Re: Florida Contacts

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-15 16:10:57 UTC
From: "Gary S." <Idontwantspam@net>
Message-ID: <8f2vh097fj4cik23cucn20ppl29ruc1sp2@4ax.com>
Source record: 23898

On Sun, 15 Aug 2004 14:41:51 GMT, Al <no.spam@wanted.com> wrote:

>Anyone doing contacts in Port Charlotte? I have a friend there who I
>can't reach. Any ideas on how this could be done?
>
>Al
Part of the mission of the National Traffic System, which is part of
the ham radio community's emergency preparedness and operations
efforts, is to pass "health and welfare" messages in times of
disasters.

Contact a member of a local radio club about sending a radiogram to
your friend. Keep in mind that this type of message is lower in
priority than others, and that his being in an emergency shelter or
utilities being down will slow it down.

There may well be hams doing direct contacts with hams in that area,
but the last step of getting the message to your friend may be a
problem.

Happy trails,
Gary (net.yogi.bear)
---
at the 51st percentile of ursine intelligence

Gary D. Schwartz, Needham, MA, USA
Please reply to: garyDOTschwartzATpoboxDOTcom

1767. Re: High Current Horror Stories

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-15 16:50:28 UTC
From: Ken Scharf <wa2mzeNOTTHIS@bellsouth.net>
Message-ID: <ZtMTc.2793$pl.854@bignews3.bellsouth.net>
Source record: 23900
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur

Paul Burridge wrote:
> Hi all,
>
> Anyone got any high-current/low-voltage horror stories they'd care to
> share? You know; where your messin' about with a car battery or
> something like that and forget to take your watch off or whatever.
>
> p.
Well there was this guy changing batteries on a golf cart.
Had 6 very large 6 volt storage batteries wired in series.
He was using a ratchet wrench to remove the battery contact
clamps and while detaching the most postive end first (!)
the ratchet handle touched the frame of the golf cart.

Ever see a Sears ratchet glowing WHITE HOT?

1768. Re: High Current Horror Stories

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-15 17:05:09 UTC
From: John Popelish <jpopelish@rica.net>
Message-ID: <411F97C5.FA9B0164@rica.net>
Source record: 23901
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur

Paul Burridge wrote:
>
> Hi all,
>
> Anyone got any high-current/low-voltage horror stories they'd care to
> share? You know; where your messin' about with a car battery or
> something like that and forget to take your watch off or whatever.
>
Though there is considerable voltage involved in the production of the
currents involved, it is the (forces of the magnetic field of the)
current that crushes the coins.
http://webpages.charter.net/tesla/crushed_coin.htm
--
John Popelish

1769. Re: Plumbing techniques on VHF

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-15 17:24:02 UTC
From: "jim.gm4dhj" <jim.gm4dhj@ntlworld.com>
Message-ID: <S_MTc.325$Xu.115@newsfe4-gui.ntli.net>
Source record: 23899
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

> No but those how sell antennas often do.
>
>
>
? ...

1770. Re: High Current Horror Stories

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-15 18:17:32 UTC
From: Allodoxaphobia <bit-bucket@config.com>
Message-ID: <slrnchva5s.vju.bit-bucket@shell.config.com>
Source record: 23902
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur

On Sun, 15 Aug 2004 12:50:28 -0400, Ken Scharf hath writ:
>>
> Well there was this guy changing batteries on a golf cart.
> Had 6 very large 6 volt storage batteries wired in series.
> He was using a ratchet wrench to remove the battery contact
> clamps and while detaching the most postive end first (!)
> the ratchet handle touched the frame of the golf cart.
>
> Ever see a Sears ratchet glowing WHITE HOT?

Ya, but... You can take it back and they'll replace it. HI!HI!

Jonesy
--
| Marvin L Jones | jonz | W3DHJ | linux
| Gunnison, Colorado | @ | Jonesy | OS/2 __
| 7,703' -- 2,345m | config.com | DM68mn SK

1771. Re: High Current Horror Stories

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-15 18:19:46 UTC
From: "Gary S." <Idontwantspam@net>
Message-ID: <q8avh093ftlp6ql554obbbf5qi2scaqjgt@4ax.com>
Source record: 23903
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur

On 15 Aug 2004 18:17:32 GMT, Allodoxaphobia <bit-bucket@config.com>
wrote:

>On Sun, 15 Aug 2004 12:50:28 -0400, Ken Scharf hath writ:
>>>
>> Well there was this guy changing batteries on a golf cart.
>> Had 6 very large 6 volt storage batteries wired in series.
>> He was using a ratchet wrench to remove the battery contact
>> clamps and while detaching the most postive end first (!)
>> the ratchet handle touched the frame of the golf cart.
>>
>> Ever see a Sears ratchet glowing WHITE HOT?
>
>Ya, but... You can take it back and they'll replace it. HI!HI!
>
Only if you don't melt the part that says "Craftsman".

Happy trails,
Gary (net.yogi.bear)
---
at the 51st percentile of ursine intelligence

Gary D. Schwartz, Needham, MA, USA
Please reply to: garyDOTschwartzATpoboxDOTcom

1772. Re: High Current Horror Stories

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-15 18:32:49 UTC
From: Allodoxaphobia <bit-bucket@config.com>
Message-ID: <slrnchvb2h.vju.bit-bucket@shell.config.com>
Source record: 23904
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur

On Sun, 15 Aug 2004 15:12:54 GMT, DO NOT REPLY to this ADDRESS hath writ:
> My brother, circa 1965, was working on a six volt Chevrolet.
>
> His ring got between the battery terminal and ground. (Don't ask me
> how.)
>
> He ended up with a destroyed ring and a finger with a very painful burn
> around it.
>
> No permanent damage but come to think about it he's a little weird even
> today. Hmmm.... but isn't everybody weird but you and me and I sometimes
> wonder about...

My dad (the first W3DHJ) told me an almost identical story.

It was in the late 20's. He was working on _his_ dad's Ford utility truck. (Grandpa owned a dairy in Big Bear, Calif.) Six volts here, too. The truck was parked in the driveway -- just outside the garage. When my dad caught his ring between the positive terminal and the truck frame, my Grandpa picked him up bodily -- ran him over to the rain barrel at the corner of the garage -- and stuffed my dad's entire left arm (and much of his upper torso) into the barrel.

(*The worst* thing you could do in a situation like that is try to _pull_ the ring off.)

My dad was a 90-day wonder in WW II. He then spent 25+ years in the U.S. Army Corps of Engineers (we traveled the planet....) Most of his duty assignments were as (Deputy) Post Engineer -- with the added responsibity as Post Safety Officer. I always knew him to be evangelically anal about safety. I'm sure that incident with the old Ford truck had a wee bit to do with it.

73
Jonesy
--
| Marvin L Jones | jonz | W3DHJ | linux
| Gunnison, Colorado | @ | Jonesy | OS/2 __
| 7,703' -- 2,345m | config.com | DM68mn SK

1773. Re: Florida Contacts

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-15 18:42:12 UTC
From: xpyttl <xpyttl_NOSPAM@earthling.net>
Message-ID: <10hvbk5sp48i78c@corp.supernews.com>
Source record: 23905

The SATERN net has been reporting on conditions in various places, but H&W traffic isn't going into the area yet as far as I can tell. (Shouldn't be a surprise if you think about it). However, if you go to www.satern.net there is a link at the bottom of the page to a form where you can inquire about an individual. Supposedly this is faster than sending a radiogram.

However, if you want to try some traffic into the area and you don't know how to get into a local traffic net, you can check the ARRL website for section nets in your state, or you can try the ISSBN at 0100Z on 3.985. If you are a little rough on traffic procedures, the ISSBN may be a little more tolerant than a section net, depending on your particular section. If you are not an amateur, and the SATERN website doesn't look like the ticket, then Gary's advice is the best you will get.

..

"Al" <no.spam@wanted.com> wrote in message
news:no.spam-E12BB1.10421015082004@news.verizon.net...
> Anyone doing contacts in Port Charlotte? I have a friend there who I
> can't reach. Any ideas on how this could be done?
>
> Al

1774. Re: High Current Horror Stories

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-15 19:04:09 UTC
From: "Gary S." <Idontwantspam@net>
Message-ID: <h6bvh0hvi29sqjl0dshgr8l6a3969ttd64@4ax.com>
Source record: 23906
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur

On Sun, 15 Aug 2004 12:01:14 +0100, Paul Burridge
<pb@notthisbit.osiris1.co.uk> wrote:

>Anyone got any high-current/low-voltage horror stories they'd care to
>share? You know; where your messin' about with a car battery or
>something like that and forget to take your watch off or whatever.
>
I did once work with this sort of power, at a company which was making
superconductors. We had to test various samples at high current/low
voltage to determine some of the properties, while they were submerged
in various liquified gases.

One project involved setting up a two-module 1000 watt DC power
supply. I "wired" them together using copper bar stock 1" by 1/4",
bent to fit the terminals, and plated with silver for lower contact
resistance. The connection to the samples was with 2 ought welding
cable, which was about 1-1/8" in diameter with insulation.

I have also worked with high voltage RF up to 20 kV, but that is
another story.

The general rule is when you are working with KIL-o-amps, KIL-o-volts,
or KIL-o-watts, is to make sure you don't get KILL-ed.

Happy trails,
Gary (net.yogi.bear)
---
at the 51st percentile of ursine intelligence

Gary D. Schwartz, Needham, MA, USA
Please reply to: garyDOTschwartzATpoboxDOTcom

1775. Re: development of the "Desert Ratt" regenerative receiver design

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-15 19:50:57 UTC
From: John Moriarity <k6qq@hdo.net>
Message-ID: <10hvfjmhv9scba7@corp.supernews.com>
Source record: 23908

> I have questions about the biasing network surrounding Q4. R9 and R10
> are specified as 1.2K (1200 ohm). The schematic states that the
> emitter and collector voltages should be 3.0 Volts. However, my version
> develops an collector voltage of 7.2 Volts and an emitter voltage of 1.7
> Volts. My base voltage is 1.8 Volts (which is in the ballpark of what
> the schematic states as should be 2.0, I am not nearly as worried about
> that one.

The voltages on the schematic are wrong.
Whatever the base voltage is, the emitter
should be 0.6 to 0.7 volts lower. Then
you can calculate the emitter current as
Ve/Re (around 1 mA in this case). The
Collector voltage is approximately Ie/Rc
lower than the supply voltage, or something
around 7V here.

The fact that your emitter voltage is only
0.1V less than the base voltage says that
either the transistor is bad (which you seem
to have eliminated, you have a bad or wrong
value component, or a wiring mistake.

I'd suggest disconnecting C15, C16 and
C17 to isolate the stage, and repeating the
dc measurements.

73, John - K6QQ

1776. Re: D104 and the 706

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-15 20:24:50 UTC
From: "f.dinger" <f.dinger@ntlworld.com>
Message-ID: <mEPTc.892$wz3.491@newsfe1-gui.ntli.net>
Source record: 23907

> Got a 706 which has a 500 or 600 ohm mic input impedance. I have a D104
which
> best I can tell has a high output impedance.
==========
Don't know the D104 mic (Shure ?) However many socalled High impedence
microphones are dynamic low imp. mics. with a small transformer fitted
inside the mic. housing. Examples : Mics supplied with Yaesu valve
transceivers from the 1960 -70s.
By disconnecting the transformer it is just a 500 - 600 Ohms microphone.

Frank GM0CSZ / KN6WH

1777. Re: Florida Contacts

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-15 20:38:36 UTC
From: Al <no.spam@wanted.com>
Message-ID: <no.spam-C3FE0D.16385415082004@news.verizon.net>
Source record: 23909

In article <8f2vh097fj4cik23cucn20ppl29ruc1sp2@4ax.com>,
Gary S. <Idontwantspam@net> wrote:

> On Sun, 15 Aug 2004 14:41:51 GMT, Al <no.spam@wanted.com> wrote:
>
> >Anyone doing contacts in Port Charlotte? I have a friend there who I
> >can't reach. Any ideas on how this could be done?
> >
> >Al
> Part of the mission of the National Traffic System, which is part of
> the ham radio community's emergency preparedness and operations
> efforts, is to pass "health and welfare" messages in times of
> disasters.
>
> Contact a member of a local radio club about sending a radiogram to
> your friend. Keep in mind that this type of message is lower in
> priority than others, and that his being in an emergency shelter or
> utilities being down will slow it down.
>
> There may well be hams doing direct contacts with hams in that area,
> but the last step of getting the message to your friend may be a
> problem.
>
> Happy trails,
> Gary (net.yogi.bear)
> --
> at the 51st percentile of ursine intelligence
>
> Gary D. Schwartz, Needham, MA, USA
> Please reply to: garyDOTschwartzATpoboxDOTcom

Thanks guys for your assistance.

Al

1778. Re: Neato! Cheap VLF converter!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-15 20:49:46 UTC
From: Dennis <Dennis_The_Menace@no_spam.net>
Message-ID: <10hvj3eck897pd0@corp.supernews.com>
Source record: 23910

In article <411F6FD9.10FB98BF@.deletethis.sympatico.ca>,
mylastname@.deletethis.sympatico.ca says...
>
>
>
>
>Gregg wrote:
>>
>> Behold, Dave Holford signalled from keyed 4-1000A filament:
>>
>> > What's odd about a 134' diople? seems pretty standard for 160M Ham work
>> > and with open wire feeders should be very versatile.
>> >
>> > Dave
>>
>> I read that as 1,134' dipole. Fine for LowFER work :-)
>>
>> --
>> Gregg t3h g33k
>> "Ratings are for transistors....tubes have guidelines"
>> http://geek.scorpiorising.ca
>
>
>"I ordered the 14 mhz version and on a 134' dipole I'm hearing
>WWVB (60kc) LOUD!"
>
>EH?
>
>Dave

I misunderstood the original post. But how is it you hear WWVB at 60Kz?
Are you hearing an analog?

dennis

--

1779. Re: D104 and the 706

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-15 22:23:26 UTC
From: "G.Beat" <now9spamgb@no.comcast.spam.net>
Message-ID: <ynRTc.17239$TI1.15736@attbi_s52>
Source record: 23911

"PDRUNEN" <pdrunen@aol.com> wrote in message
news:20040814131640.12089.00003510@mb-m01.aol.com...
> Hi Group,
>
> Got a 706 which has a 500 or 600 ohm mic input impedance. I have a D104
> which
> best I can tell has a high output impedance.
>
> If I use a 60Hz step down transformer, say, 120V in gives 10v out, the
> turn
> ratio is 120/10 or 12:1. Given that I attach the mic output to the
> primary and
> the rig on the secondary, this should step down the impedance by a factor
> of
> 12^2 or 144 so that a D104 with 50K on the output is now seen as about 400
> ohm.
>
> Here are a few questions,
>
> 1: Will a 60Hz transformer work well keeping the base sound and pass upto
> 3KHz?
>
> 2: Is the calculation of the impedance correct?
>
> 3: Would the audio as seen on the secondary be reduced by a factor of 12
> such
> that the audio would be weak?
>
> 4: Other?
>
> Tnx de KJ4UO

Paul -

First, The D104 microphone was manufactured by Astatic, a division of
Omnitronics.
Omnitronics LLC
341 Harbor Street
Conneaut, OH 44030
http://www.astatic.com/

There are several models of the D104 microphone (e.g., stand combinations,
transistorized preamp, etc.) - detailed on their web site.
All D104 microphone that I am aware of ... use a high impendence
ceramic/crystal microphone element.

Wiring diagrams for the 8-pin Icom (not the RJ-45 jack version) is on their web site.

Some operator have switched the D104 to Heil dynamic elements (HM-4 or HM-5).
Astatic no longer has the crystal elements, but Mouser has a good Far East substitute.
http://www.mouser.com/

This make a big difference in your approach -- since some of these bases have a low-Z / high-z switch in the amplifier OR
actually have an audio transformer in the base for this purpose.
The Heil XT-1 is a suitable transformer, Mouser has several candidates in their catalog.
Radio Shack use to some suitable audio transformers for $ 2 or so.

Xicon has some candidates (e.g. Mouser # 42TM017; 42TM019; 42TM024) .. with differing input impedances (25K and 10K) and power capability (not a major issue for your application)

Greg, w9gb

1780. Re: QST 9/04 Xtal Osc Phase Noise ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-15 22:43:06 UTC
From: Ken Scharf <wa2mzeNOTTHIS@bellsouth.net>
Message-ID: <DERTc.37$K.32@bignews3.bellsouth.net>
Source record: 23912

Harold E. Johnson wrote:
> "Henry Kolesnik" <kolesnik@sbcglobal.net> wrote in message
> news:RnJSc.5417$3Z7.2913@newssvr24.news.prodigy.com...
>
>>I always thought I was last on the QST delivery line. It says its a
>
> Pierce
>
>>with a gate follower buffer for output. Quite stable and constant output!
>>It uses 2 2N5460s. I need to find a half dozen 2N5460s so I can build at
>>least a couple to test receivers.. If someone finds a source please let
>
> me
>
>>know. Also it someone builds and measures the phase noise please let us
>>know.
>>tnx
>>
>
> Mousser has them, although they seem to be a very ordinary P channel FET.
>
> W4ZCB
>
>
Would 2n5461's work. IIRC they are basicly the same fet, different IDSS
maybe.

1781. Re: QST 9/04 Xtal Osc Phase Noise ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-15 23:11:09 UTC
From: "Harold E. Johnson" <W4ZCB@mchsi.com>
Message-ID: <h4STc.317903$XM6.13570@attbi_s53>
Source record: 23913

> > Mousser has them, although they seem to be a very ordinary P channel
FET.
> >
> > W4ZCB
> >
> >
> Would 2n5461's work. IIRC they are basicly the same fet, different IDSS
> maybe

Digi has them as well, and I have some on order. Doubt there are any surprises, but hope springs eternal. Suspect that the "Tech Correspondence" dept didn't have the clout to get the attention of the lab. Will let you know in about a week.

W4ZCB

1782. Re: High Current Horror Stories

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-16 00:00:42 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cfotfamsl1@titan.btinternet.com>
Source record: 23914

Sorry, I answered the wrong question. Hope you found it interesting.

==========

"Reg Edwards" wrote -

> The place was Hong Kong.
>
> It was around Xmas, 1945.
>
> I was alone in the lab.
>
> Working on a set of airborne radar equipment strewn around the workbench.
>
> The scanner was not rotating, just pointing out of the open window, past a
> Royal Navy cruiser moored in the harbour about a mile away and onwards to
> Victoria City with the island's mountainous peaks in the background. All
> displayed strong echos on the PPI on its 10-mile range.
>
> As indicated on the PPI there was something intermittent.
>
> I suspected a poor coaxial cable connection.
>
> Familiarity breeds contempt.
>
> Forgetting the equipment was still switched on I unscrewed one of the many
> coaxial connectors and Pye plugs.
>
> To clear out any foreign bodies I inserted the tip of by my right
forefinger
> into the vacant socket.
>
> Now that particular socket was power output from the modulator unit on its
> way to the transmitter unit. The transmitter was a 50 Kilowatt magnetron
> which required unpteen thousand volts, pulsed at several hundred times
> persecond with a one microsecond pulse width.
>
> How long I lay on the floor I do not know. Probably only a few seconds.
>
> I trembled all over which passed off after a few minutes. Apart from a
white
> burn on the afore-mentioned fingertip the after-effects were
> psychological - it took several days to pluck up courage just to
re-enter
> the lab when I had difficulty looking in the direction of the offending

plug
> and socket.
> ---
> Reg, G4FGQ
>
>

1783. Follow up.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-16 00:37:32 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cfovkc$8mv$1@sparta.btinternet.com>
Source record: 23915

The place was the same lab in Hong Kong.

There was a chinese lady who came in each day to sweep the floor and remove the EF50 valves, etc, which had been replaced because of low cathode emission.

It was my habit to point the radar scanner into the room, stand in the beam and quickly put put a neon lamp into my mouth. The lamp always lit up brightly.

Whenever I did this the lady used to run out of the room terrified at the magic sight.

Just the sort of trick a 21-year-old RAF radar mechanic would play.

Being in the Far East, the anti-radar defence rumour, spread by the Germans, that exposure to radar beams caused sterilisation to radar mechanics had not reached me.

Anyway, as my wife at intervals some years later allowed me to think, I eventually became the father of 5 children.

Reg

1784. Re: High Current Horror Stories

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-16 01:25:30 UTC
From: jana <jana90201@nospam.com>
Message-ID: <41200D08.F9DC5C10@nospam.com>
Source record: 23916
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur

Remember an old article in popular electronic, back from 1960's,

young boy wanted to help his girl nextdoor with a wart on her hand,
bright as he was, he thought he could use the hv from his pops hf rig
to burn off said wart.... well, she let out this scream that almost
broke the sound barrier and he got his butt wacked big time.

The wart did get removed !

j

Paul wrote:

> Hi all,
>
> Anyone got any high-current/low-voltage horror stories they'd care to
> share? You know; where your messin' about with a car battery or
> something like that and forget to take your watch off or whatever.
>
> p.
> --
>
> "What is now proved was once only imagin'd." - William Blake, 1793.

1785. Re: Follow up.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-16 01:46:08 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <db40i0pdg0fv1neramgm2hm509ls6i74ki@4ax.com>
Source record: 23917

On Mon, 16 Aug 2004 00:37:32 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>Being in the Far East, the anti-radar defence rumour, spread by the Germans,
>that exposure to radar beams caused sterilisation to radar mechanics had not
>reached me.
>
>Anyway, as my wife at intervals some years later allowed me to think, I
>eventually became the father of 5 children.

Perhaps you shoulda stood a bit closer to the waveguides, Reg. You'd
have been rich by now without all those kids. Plus you might even have
grown an extra brain. ;-)
--

"What is now proved was once only imagin'd." - William Blake, 1793.

1786. Re: D104 and the 706

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-16 02:20:30 UTC
From: rmonagha@engr.smu.edu
Message-ID: <cfp5le$2p4$1@blaze.seas.smu.edu>
Source record: 23918

there was an article in QST (circa 1992 IIRC?) on adapting the astatic d104 microphone using a single dual op amp, setup for 300 to 3,000 hz pass band, for impedance conversion to 600 ohms output impedance. Some d104 mikes had an adapter built-in using a 9 volt battery, one recently sold on Ebay ($21-ish) with the mike ;-)

hth bobm
--
****
* Robert Monaghan POB 752182 Southern Methodist Univ. Dallas Tx 75275 *
**********Standard Disclaimers Apply**********

1787. Re: Follow up.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-16 03:06:31 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <XwVTc.16778$X12.10578@edtnps84>
Source record: 23919

Behold, Paul Burridge signalled from keyed 4-1000A filament:

> On Mon, 16 Aug 2004 00:37:32 +0000 (UTC), "Reg Edwards"
> <g4fgq.regp@ZZZbtinternet.com> wrote:
>
>>Being in the Far East, the anti-radar defence rumour, spread by the
>>Germans, that exposure to radar beams caused sterilisation to radar
>>mechanics had not reached me.
>>
>>Anyway, as my wife at intervals some years later allowed me to think, I
>>eventually became the father of 5 children.
>
> Perhaps you shoulda stood a bit closer to the waveguides, Reg. You'd
> have been rich by now without all those kids. Plus you might even have
> grown an extra brain. ;-)

You mean his widow wouldda been rich ;-)

--
Gregg t3h g33k
"Ratings are for transistors....tubes have guidelines"
http://geek.scorpiorising.ca

1788. Yet another follow up.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-16 03:06:57 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cfp8cg$k71$1@sparta.btinternet.com>
Source record: 23920

The time was 1952 or 1953. I had a roving job. Indeed I've nearly always had a roving job. You meet people.

The place was Gretna Green, just a few hundred yards from the well-known black-smith's forge and its famous marriage-ceremony anvil.

I was working with a colleage in a normally unstaffed telephone repeater station. The job was capacitance-rebalancing of the multi-pair trunk carrier cables which ran through the place.

The test leads were very flexible twin-screened cables which kept getting in the way of the portable test equipment, on a collapsible table, and the two operators. Difficult to read the dB meters.

So to ease the accommodation problem the test cables were tossed up and over a pair of substantial bars, up near the ceiling, which could have been part of the station's equipment racks.

Unfortunately, the insulation over the screening braid was worn at one point and the bars turned out to be the main copper 50-volt bus-bars from the battery room. Work continued in silence until suddenly there was a loud bang, like a cannon shot.

The main fuse from the station's batteries had blown. The station stopped working. England was disconnected from Scotland at a time when the Cold War had started.

There was a glass-fronted fusebox containing a lot of cardboard-cased fuses. The idea was for fuses which had blown to indicate themselves by charred cardboard. But none were indicated although spare fuses were available. One catastophy after another. But in any case neither my colleage or I was familiar with station maintenance procedures.

We had visions of severe disciplinery action being taken. And I had brought with me a set of fishing rods. Indeed, I had obtained after much arguing temporary exclusive membership of Gretna Green fishing club at the then extortionate fee of 2 shillings and sixpence.

But then our luck changed. 10 minutes later the local maintenance man walked in. Purely by chance he had come in to make himself a cup of tea (facilities were available) whereas he should have been doing something else in the English town of Carlisle, 12 miles away. We were of senior rank. He fixed the fuse and we never heard any more about the serious incident.

In the evenings I went fishing for trout by bright moonlight while my colleage, a much older fellow than I, took my wife (who had come to join me for a week) to the local Gretna cinema. He bought her icecream in the back

row. And I made friends with the female cook at the hotel and had trout and butter for the first course at breakfast.

The next few jobs took me further into the wilds of Bonnie Scotland where there was nothing to do except to gamble and play cards in the evenings. I always lost. Even to the extent of losing my ex-army camp bed and having to sleep on the hard wooden blocks of the repeater station floor. Myxamatosis raged amongst the poor Scottish rabbit population.

It is only relatively recently, in my old age, have I returned to such happy days. I have just opened a bottle of Sierra Valley, Californian white wine for a night-cap. Diplomatic relations are now back to normal. I expect no more irritable invitations to tea parties in Boston.

Yours, Reg, G4FGQ

1789. Re: Follow up.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-16 04:00:56 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cfpbho$7m$1@hercules.btinternet.com>
Source record: 23921

"Paul Burridge" wrote

> Perhaps you shoulda stood a bit closer to the waveguides, Reg. You'd
> have been rich by now without all those kids. Plus you might even have
> grown an extra brain. ;-)

==========

Paul,

I could have been even richer if I'd charged for all those computer programs. But I have been much happier just by producing them instead of setting up a waste-of-my-time sales and marketing organisation. But it's a fact I never realised at the outset how popular they would become. I was under the impression I was a late-comer to the field. But it seems I was not. I was perhaps the originator of this type of program.

And I am confiding in you, even now, only because I am half-way down a bottle of Californian medium-sweet white. Must keep international relations in good order.

Yours, Reg, Amateur radio station G4FGQ

1790. Re: Measuring transitor impedances

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-16 04:27:55 UTC
From: bviel <sjouk@home.nl>
Message-ID: <cfpd3m$ic3$1@news2.tilbu1.nb.home.nl>
Source record: 23922

Use a direction coupler for forward and reverse measurement.
Use a 2 Chan. Scope great bandwith not nessesary, it is the amplitude that is to be measured.
reflection coefficient = Vreflected/Vincident = polar magn. and angle
Chris Bowick Book page 104, reflection coefficient may be plotted directly in the Smith Chart, and the corresponding impedance read off the chart.
Or did I missed something?

"Joe Rocci" <joe@roccis.com> schreef in bericht
news:T0eSc.4297$Kv2.4186@trndny09...
> Steve,
> A decent (not the dollar store variety) CATV splitter has directivity of
> about 30 dB from 5Mhz to over 500 MHZ. I think this would do the job.
>
> Joe
> W3JDR
>
>
> Steve Nosko <suteuve.nosukowicuz@moutouroula.com> wrote in message
> news:cfaqgqgkf1@newshost.mot.com...
> >
> > "Paul Burridge" <pb@notthisbit.osiris1.co.uk> wrote in message
> > news:8p8hh0p3q5thkr89kfm6hipm6bc0hi33i2@4ax.com...
> > > On Tue, 10 Aug 2004 01:53:44 GMT, "Joe Rocci" <joe@roccis.com> wrote:
> > > >
> > > >Here's an idea that's just whacky enough that it might work...has
> anyone
> > > >tried it?
> > > >
> > > >If you have a dual-trace scope with enough bandwidth, you might be
able
> > use
> > > >Lissajous patterns. The idea would be to drive the complex load
through
> a
> > > >directional coupler with fairly good directivity. A sample of the
> > incident
> > > >signal would go into the scope X input and a sample of the reflected
> > signal
> > > >would go into the Y input. With a pure reactance as a calibration
load,
> > > >adjust the X and Y scope gain for a perfect circle on the display.
> > Replace
> > > >the test load with a complex load, and the magnitude and inclination

of
> > the
> > > >line/oval display can tell you amplitude and phase of the reflected
> > signal,
> > > >from which any other metric can be calculated.
> > >
> > > Nice idea, Joe! If it could only be made to work, you'd be a genius.
> > > --
> >
> >
> > OK Actually, this looks good as long as you have a directional coupler
> for
> > the frequency of interest! Paul didn't say. (SWR Bridge, actual
bridge,
> > for lower frequencies) You'll also have to allow for the difference in
> > location of the two samples by adjusting the line lengths to the two
scope
> > probes intil they are both at the same "distance" from the load.
Judging
> > phase shift from a circle can't be as good as simply looking at the two
> > waveforms. The scope horiz gain can be adjusted for some nice number of
> > divisions for each half cycle, say 9...
> > I've got a 100MHz. dual trace storage scope, but any directional
> > couplers around here only will be down to 130 Mhz at best... I do also
> have
> > a good bridge for down to 5 MHz., (also about 1 meter worth of stretch
> > line...so it is possible as long as the power level is within the bridge
> > capability.
> > --
> > Steve N, K,9;d, c. i My email has no u's.
> >
> >
> >
> >
>
>

1791. Re: Neato! Cheap VLF converter!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-16 05:33:49 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <1HXTc.30851$fz2.18175@edtnps89>
Source record: 23923

Behold, Dave Holford signalled from keyed 4-1000A filament:

> Gregg wrote:
>>
>> Behold, Dave Holford signalled from keyed 4-1000A filament:
>>
>> > What's odd about a 134' diople? seems pretty standard for 160M Ham
>> > work and with open wire feeders should be very versatile.
>> >
>> > Dave
>>
>> I read that as 1,134' dipole. Fine for LowFER work :-)
>>
>> --
>> Gregg t3h g33k
>> "Ratings are for transistors....tubes have guidelines"
>> http://geek.scorpiorising.ca
>
>
> "I ordered the 14 mhz version and on a 134' dipole I'm hearing WWVB
> (60kc) LOUD!"
>
> EH?
>
> Dave

Like, you're lucky, eh? ;-)

My QTH must be in a 60KHz null... :-(

--
Gregg t3h g33k
"Ratings are for transistors....tubes have guidelines"
http://geek.scorpiorising.ca

1792. Re: development of the "Desert Ratt" regenerative receiver design

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-16 06:09:52 UTC
From: The Eternal Squire <eternalsquire@comcast.net>
Message-ID: <4ZGdnd3v0uwy0r3cRVn-uw@comcast.com>
Source record: 23924

John Moriarity wrote:
>>I have questions about the biasing network surrounding Q4. R9 and R10
>>are specified as 1.2K (1200 ohm). The schematic states that the
>>emitter and collector voltages should be 3.0 Volts. However, my version
>>develops an collector voltage of 7.2 Volts and an emitter voltage of 1.7
>>Volts. My base voltage is 1.8 Volts (which is in the ballpark of what
>>the schematic states as should be 2.0, I am not nearly as worried about
>>that one.
>
>
> The voltages on the schematic are wrong.

Yep. I had used LTSPICE to figure that one out. Collector and Emitter
DC voltages measured are same as on simulation, NOT on schematic!
AC voltages on nodes 3 and 8 from simulation agree with same on
schematic. I should measure the AC voltages.

```
-------------cut here-------------
Version 4
SHEET 1 1052 772
WIRE -16 224 32 224
WIRE 144 384 208 384
WIRE 272 384 320 384
WIRE 304 96 304 128
WIRE 304 16 144 16
WIRE 144 16 144 96
WIRE -80 224 -160 224
WIRE -160 384 -160 416
WIRE 32 224 32 240
WIRE 32 320 32 560
WIRE 320 464 144 464
WIRE 144 464 144 496
WIRE 144 272 144 384
WIRE 576 352 576 400
WIRE 368 176 144 176
WIRE 432 176 576 176
WIRE 576 176 576 272
WIRE 576 176 592 176
WIRE 32 224 80 224
WIRE 32 640 32 720
FLAG 144 496 0
FLAG 304 128 0
FLAG -160 416 0
FLAG 32 720 0
FLAG 576 400 0
```

```
SYMBOL npn 80 176 R0
SYMATTR InstName Q1
SYMBOL res 128 80 R0
WINDOW 3 -83 76 Left 0
SYMATTR Value 1200
SYMATTR InstName R1
SYMBOL res 128 368 R0
WINDOW 0 -44 67 Left 0
WINDOW 3 -82 105 Left 0
SYMATTR InstName R2
SYMATTR Value 1200
SYMBOL cap 272 368 R90
WINDOW 0 0 32 VBottom 0
WINDOW 3 32 32 VTop 0
SYMATTR InstName C1
SYMATTR Value .1ï¿½
SYMBOL cap -16 208 R90
WINDOW 0 0 32 VBottom 0
WINDOW 3 36 34 VTop 0
SYMATTR InstName C3
SYMATTR Value .1ï¿½
SYMBOL res 304 368 R0
WINDOW 3 48 65 Left 0
SYMATTR Value 100000000
SYMATTR InstName R3
SYMBOL res 560 256 R0
SYMATTR InstName R4
SYMATTR Value 100000000
SYMBOL Misc\\battery 304 0 R0
SYMATTR InstName V1
SYMATTR Value 9
SYMBOL voltage -160 208 R0
WINDOW 3 -85 -33 Left 0
WINDOW 123 0 0 Left 0
WINDOW 39 0 0 Left 0
SYMATTR Value SINE(0 .1 400)
SYMATTR InstName V2
SYMBOL res -176 288 R0
SYMATTR InstName R5
SYMATTR Value .01
SYMBOL Misc\\battery 32 544 R0
SYMATTR InstName V3
SYMATTR Value 2.2
SYMBOL res 16 224 R0
SYMATTR InstName R6
SYMATTR Value 10000
SYMBOL cap 432 160 R90
WINDOW 0 0 32 VBottom 0
WINDOW 3 36 34 VTop 0
SYMATTR InstName C4
```

SYMATTR Value .1ï¿½
TEXT -246 506 Left 0 !.tran 0 .01 0 .001
----------cut here----------

> Whatever the base voltage is, the emitter
> should be 0.6 to 0.7 volts lower. Then
> you can calculate the emitter current as
> Ve/Re (around 1 mA in this case). The
> Collector voltage is approximately Ie/Rc
> lower than the supply voltage, or something
> around 7V here.
>
> The fact that your emitter voltage is only
> 0.1V less than the base voltage says that
> either the transistor is bad (which you seem
> to have eliminated, you have a bad or wrong
> value component, or a wiring mistake.
>
> I'd suggest disconnecting C15, C16 and
> C17 to isolate the stage, and repeating the
> dc measurements.
>
> 73, John - K6QQ
>
>

Or I should report the emitter voltage more
exactly. I'll verify this. Tell me something,
how terrible an idea is it to use disk ceramic
for C15, C16, and C17? I have heard of
disk ceramics being capable of conducting DC
if made badly.

Thanks,

The Eternal Squire.

PS: LTSPICE is the ham's best friend! I
think it would be worthwhile to post the
entire SPICE file for the Desert Ratt 2,
wouldn't THAT be something!

1793. Re: Measuring transitor impedances

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-16 09:49:30 UTC
From: Joe Rocci <joe@roccis.com>
Message-ID: <Kq%Tc.2121$de4.491@trndny07>
Source record: 23925

Read the whole thread....

Joe
W3JDR

bviel <sjouk@home.nl> wrote in message
news:cfpd3m$ic3$1@news2.tilbu1.nb.home.nl...
> Use a direction coupler for forward and reverse measurement.
> Use a 2 Chan. Scope great bandwith not nessesary, it is the amplitude that
> is to be measured.
> reflection coefficient = Vreflected/Vincident = polar magn. and angle
> Chris Bowick Book page 104, reflection coefficient may be plotted directly
> in the Smith Chart, and the corresponding impedance read off the chart.
> Or did I missed something?
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>
> "Joe Rocci" <joe@roccis.com> schreef in bericht
> news:T0eSc.4297$Kv2.4186@trndny09...
> > Steve,
> > A decent (not the dollar store variety) CATV splitter has directivity of
> > about 30 dB from 5Mhz to over 500 MHZ. I think this would do the job.
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> > Joe
> > W3JDR
> >
> >
> > Steve Nosko <suteuve.nosukowicuz@moutouroula.com> wrote in message
> > news:cfaqgqgkf1@newshost.mot.com...
> > >
> > > "Paul Burridge" <pb@notthisbit.osiris1.co.uk> wrote in message
> > > news:8p8hh0p3q5thkr89kfm6hipm6bc0hi33i2@4ax.com...
> > > > On Tue, 10 Aug 2004 01:53:44 GMT, "Joe Rocci" <joe@roccis.com>
wrote:
> > > >
> > > > >Here's an idea that's just whacky enough that it might work...has
> > anyone
> > > > >tried it?
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> > > > >If you have a dual-trace scope with enough bandwidth, you might be
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> > > use
> > > > >Lissajous patterns. The idea would be to drive the complex load
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> > a
> > > > >directional coupler with fairly good directivity. A sample of the

> > > incident
> > > > >signal would go into the scope X input and a sample of the
reflected
> > > signal
> > > > >would go into the Y input. With a pure reactance as a calibration
> load,
> > > > >adjust the X and Y scope gain for a perfect circle on the display.
> > > Replace
> > > > >the test load with a complex load, and the magnitude and
inclination
> of
> > > the
> > > > >line/oval display can tell you amplitude and phase of the reflected
> > > signal,
> > > > >from which any other metric can be calculated.
> > > >
> > > > Nice idea, Joe! If it could only be made to work, you'd be a genius.
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> > >
> > >
> > > OK Actually, this looks good as long as you have a directional
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> scope
> > > probes intil they are both at the same "distance" from the load.
> Judging
> > > phase shift from a circle can't be as good as simply looking at the
two
> > > waveforms. The scope horiz gain can be adjusted for some nice number
of
> > > divisions for each half cycle, say 9...
> > > I've got a 100MHz. dual trace storage scope, but any directional
> > > couplers around here only will be down to 130 Mhz at best... I do
also
> > have
> > > a good bridge for down to 5 MHz., (also about 1 meter worth of stretch
> > > line...so it is possible as long as the power level is within the
bridge
> > > capability.
> > > --
> > > Steve N, K,9;d, c. i My email has no u's.
> > >
> > >
> > >
> > >

> >
> >
>
>

1794. Re: High Current Horror Stories

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-16 12:45:15 UTC
From: Tim <baileythebum@yahoo.com>
Message-ID: <9LednXwWmrXOMb3cRVn-tg@comcast.com>
Source record: 23926
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur

In 1982, I was about 20 I guess and working for Dentron Radio as a tech. For no other reason than being careless, as I was normally on high alert when working on the amps, I discharged a fully charged bank of filtercaps in a Clipperton L from the left hand to the right.

I had tunnel vision for a couple seconds, fell to the ground as co-workers rushed to my side. Short of breath and dizzy I began to sweat profusely. I was ill for about a half hour then both arms began to ache as if I had been pummeled with a baseball bat.

I have been zapped a few times since then but never ever will I allow IT to flow across my chest again, that event scared the hell out of me and I was a strapping young lad in good shape. Today the same hit would kill me, I'm sure of it.

This could also explain my devout interest in QRP today!

Tim

1795. Re: High Current Horror Stories

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-16 14:30:40 UTC
From: Markus Baertschi <markus.usenet@markus.org>
Message-ID: <2obuogF8i5goU1@uni-berlin.de>
Source record: 23927
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur

Paul Burridge wrote:
> Hi all,
>
> Anyone got any high-current/low-voltage horror stories they'd care to
> share? You know; where your messin' about with a car battery or
> something like that and forget to take your watch off or whatever.
>
> p.

This dates thirty years back: I was about ten years old. My father did occasionally charge car batteries in the basement of our house. The output of the charger was short cable with a broken cigarette lighter plug. He did connect the battery to be charged with a pair of jumper cables connected to it.
I was doing something in the room, when there was a big spark and some smoke started to appear. I immediately disconnected the charger from the mains as he explained to us that this was all we had to do to remove all electricity from a device. I then went to search for him to tell him what happened. When we came back the room was full of smoke and all what was left of the jumper cables was some melted plastic. The copper was all gone !

Markus

1796. Re: QST 9/04 Xtal Osc Phase Noise ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-16 16:59:31 UTC
From: "Harold E. Johnson" <W4ZCB@mchsi.com>
Message-ID: <SJ5Uc.323566$XM6.301654@attbi_s53>
Source record: 23928

> >> > Mousser has them, although they seem to be a very ordinary P channel
> >FET.
> >> >
>
> I have built it with MPF102s (invert the circuit for correct
> polarities). Works as specified.
>
I realize it will oscillate, what's the phase noise?

W4ZCB

1797. Re: High Current Horror Stories

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-16 18:06:20 UTC
From: K7MEM <k7mem@myrealbox.com>
Message-ID: <4120F79C.70507@myrealbox.com>
Source record: 23929
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur

Paul Burridge wrote:
> Hi all,
>
> Anyone got any high-current/low-voltage horror stories they'd care to
> share? You know; where your messin' about with a car battery or
> something like that and forget to take your watch off or whatever.
>
> p.

When I graduated from highschool, 1967, I started work for a company called Standard Plastic Products. What we really did was make those plastic and cardboard Barbie cases. These were heat sealed with RF Energy. Lots of it.

The work area had about 50 sealing machines. These units were Class-C RF oscillators and ranged from 25 to 60 KW. Yes, that is Kilo Watts. Each unit had a large ceramic tube that had a base of around 6 - 8 inches in diameter. The larger units had tubes with large heat sink hats which required a chimney to remove the heat. The RF energy was applied to two copper platens that performed the sealing.

My job, along with three other techs, was to keep these machines working. The most common problem with these things was blowing fuses, dirty coupling capacitor clips, and some pretty spectacular blowouts on the platens when the material got too thin.

The real problem was that, you had to reach into the units from the back to get to the fuses or the coupling caps. The units had power interlocks, so you couldn't activate with the back open This was suppose to disable all power, remove the plate voltage, and allow any charge to bleed off. But there were a few units where the bleeder circuits did not work properly. This usually left a few thousand volts on the plates of the tubes. You learned real quickly to grip your adjustable wrench with your cardboard fuse pullers and short the plate to ground. It was a heck of a blast and after 2 or 3 times, the unit was safe to work on.

Although I never heard of anyone actually comming in contact with the voltage, because we were always on our toes, but I am sure that it would have done some damage. I doubt the government would let them get away with something like that now.

And you want to talk about QRM, these things oscillated around 27 MHz.

--
Martin E. Meserve
k7mem@myrealbox.com
http://www.k7mem.150m.com

1798. Re: Error in textbook?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-16 18:11:34 UTC
From: Keith Williams <krw@att.bizzzz>
Message-ID: <MPG.1b8abc50429007d79896e8@news.individual.net>
Source record: 23930

In article <kVyTc.6543$SC1.2068@nwrddc03.gnilink.net>, null@example.net
says...
> Keith wrote:
>
> > On Sat, 14 Aug 2004 18:24:14 +0100, John Woodgate wrote:
> >
> >> I read in sci.electronics.design that Keith <krw@att.bizzzz> wrote (in
> >> <pan.2004.08.14.16.27.53.182915@att.bizzzz>) about 'Error in textbook?',
> >> on Sat, 14 Aug 2004:
> >>
> >>>Unfortunately, boiling the CFC also distilled it, leaving any
> >>>contamination on the chips.
> >>
> >> Sulfur hexafluoride might have been better, but it's probably more
> >> costly than CFCs were.
> >
> > Cost? Dunno. I do know that we were paying $50/qt (IIRC) for the stuff
> > in '75. I wouldn't think a sulfur/fluoride brew could be made any
> > "cleaner" than CFCs. THe problem was the contaminants.
> >
> Yeah, and whether you're working with a liquid or gas, it's the contaminants
> that make it dirty. I'd think a gas could be cleaner already just by not
> dissolving a bunch of solids, although the solids in suspension can be
> even smaller than in a liquid. But those aren't going to condense out.
> They might collect as dust, but if that's your problem, then you have
> a lot worse problem than contaminated fluid!

The issue was that during the phase change the contaminants were left
behind. They were soluble in the liquid, but have a far higher BP than
85Cish so they're distilled *onto* the chips.
>
> I guess my point is, it wasn't the CFC's fault that it was contaminated.

I didn't blame the CFC. I don't "blame" inanimate objects. ;-) No
matter how clean the CFCs any trace contaminate deposited on the parts
that were boiling, exactly where you don't want the contamination.

> And, FYI, AIUI, SF6 is really quite inert. You make it sound like fire
> and brimstone, for heaven's sakes! ;-)

I tried to look up SF6's properties, but got nowhere. I don't think it
could have replaced CFCs. The particular CFC was chosen for its
precise boiling point.

> But it has raised a good question - which makes a better heat transfer
> agent? Helium or SF6? (gases only, of course ;-))

Note that the He was aided by pistons contacting the back of the chip
(C-4 mounted). It was a much different and more complicated package
than the LEM.

--
Keith

1799. Re: D104 and the 706

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-16 18:13:06 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <cfqtk4$9pn$1@newshost.mot.com>
Source record: 23932

"PDRUNEN" <pdrunen@aol.com> wrote in message
news:20040814131640.12089.00003510@mb-m01.aol.com...
> Hi Group,
> Got a 706 which has a 500 or 600 ohm mic input impedance. I have a D104
which
> best I can tell has a high output impedance.
> If I use a 60Hz step down transformer, say, 120V in gives 10v out, the
turn
> ratio is 120/10 or 12:1. Given that I attach the mic output to the
primary and
> the rig on the secondary, this should step down the impedance by a factor
of
> 12^2 or 144 so that a D104 with 50K on the output is now seen as about 400
ohm.
> Here are a few questions,

The other, more practical questions are answered by others, but:

> 2: Is the calculation of the impedance correct?

YES. Power remains the same on both sides of the transformer. If "V"
drops by a factor of X, the "I" increases by the same factor. R (or Z) = V
/ I

Z Pri = Vin / Iin
Z Sec = Vout / Iout
Vout = Vin / X
Iout = Iin * X
Zsec = (Vin/X) / (Iin*X)

= Vin/Iin / X / X
= Z Pri / X^2

> 3: Would the audio as seen on the secondary be reduced by a factor of 12

Yes.

> such that the audio would be weak?

The low Z mics have less output voltage than Hi Z mics and since you can
simply use a mic transformer to go between the two, you shouldn't have a
level problem.

--
Steve N, K,9;d, c. i My email has no u's.

1800. Re: Follow up.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-16 18:18:37 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <pgu1i09fr6k2v9cg764p308qtm9s04hsf3@4ax.com>
Source record: 23931

On Mon, 16 Aug 2004 04:00:56 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>Paul,
>
>I could have been even richer if I'd charged for all those computer
>programs. But I have been much happier just by producing them instead of
>setting up a waste-of-my-time sales and marketing organisation. But it's a
>fact I never realised at the outset how popular they would become. I was
>under the impression I was a late-comer to the field. But it seems I was
>not. I was perhaps the originator of this type of program.
>
>And I am confiding in you, even now, only because I am half-way down a
>bottle of Californian medium-sweet white. Must keep international relations
>in good order.

Well you're doin' a great job, Reg. Keep it up! What's the next
program you've got in mind to write? And which language to you
generally use for this purpose?
--

"What is now proved was once only imagin'd." - William Blake, 1793.

1801. Re: QST 9/04 Xtal Osc Phase Noise ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-16 18:22:12 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <cfqu56$9uk$1@newshost.mot.com>
Source record: 23934

"Harold E. Johnson" <W4ZCB@mchsi.com> wrote in message
news:SJ5Uc.323566$XM6.301654@attbi_s53...
>
> > >> > Mousser has them, although they seem to be a very ordinary P
channel
> > >FET.
> > >> >
> >
> > I have built it with MPF102s (invert the circuit for correct
> > polarities). Works as specified.
> >
> I realize it will oscillate, what's the phase noise?
>
> W4ZCB

I didn't look closely at this circuit, but the Pierce seems to have the crystal from plate to grid, or drain to gate. This seems as though it is easy to slam the crystal pretty hard (depends on the drain resistor). I'd worry about crystal dissipation as this causes drift and ageing issues. In VCOs, the more tightly you couple the tuned circuit to the device, the poorer the phase noise. We always had to get the things to just barely oscillate under worst case conditions to get the lowest phase noise. There are other ways, but memory fails...

I like the good old standby common collector colpitts used in just about all Motorola channel elements & oscillators. Hard to make one which won't oscillate.
--
Steve N, K,9;d, c. i My email has no u's.

1802. Re: Measuring transitor impedances

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-16 18:28:03 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <cfqug5$9vm$1@newshost.mot.com>
Source record: 23933

"bviel" <sjouk@home.nl> wrote in message
news:cfpd3m$ic3$1@news2.tilbu1.nb.home.nl...
> Use a direction coupler for forward and reverse measurement.
> Use a 2 Chan. Scope great bandwith not nessesary, it is the amplitude that
> is to be measured.
> reflection coefficient = Vreflected/Vincident = polar magn. and angle
> Chris Bowick Book page 104, reflection coefficient may be plotted directly
> in the Smith Chart, and the corresponding impedance read off the chart.
> Or did I missed something?

Yup, much of what was said. You simply restated it, to some degree. We
were MUCH deeper...way past the basics.

The scope has to work reasonably well at the frequency of interest. They
can die pretty fast abofe their useful frequency.

You also have to measure *phase* between the two signals.
--
Steve N, K,9;d, c. i My email has no u's.

>
>
> "Joe Rocci" <joe@roccis.com> schreef in bericht
> news:T0eSc.4297$Kv2.4186@trndny09...
> > Steve,
> > A decent (not the dollar store variety) CATV splitter has directivity of
> > about 30 dB from 5Mhz to over 500 MHZ. I think this would do the job.
> >
> > Joe
> > W3JDR
> >
> >
> > Steve Nosko <suteuve.nosukowicuz@moutouroula.com> wrote in message
> > news:cfaqgqgkf1@newshost.mot.com...
> > >
> > > "Paul Burridge" <pb@notthisbit.osiris1.co.uk> wrote in message
> > > news:8p8hh0p3q5thkr89kfm6hipm6bc0hi33i2@4ax.com...
> > > > On Tue, 10 Aug 2004 01:53:44 GMT, "Joe Rocci" <joe@roccis.com>
wrote:
> > > >
> > > > >Here's an idea that's just whacky enough that it might work...has
> > anyone
> > > > >tried it?
> > > > >
> > > > >If you have a dual-trace scope with enough bandwidth, you might be

> able
> > > use
> > > > >Lissajous patterns. The idea would be to drive the complex load
> through
> > a
> > > > >directional coupler with fairly good directivity. A sample of the
> > > incident
> > > > >signal would go into the scope X input and a sample of the
reflected
> > > signal
> > > > >would go into the Y input. With a pure reactance as a calibration
> load,
> > > > >adjust the X and Y scope gain for a perfect circle on the display.
> > > Replace
> > > > >the test load with a complex load, and the magnitude and
inclination
> of
> > > the
> > > > >line/oval display can tell you amplitude and phase of the reflected
> > > signal,
> > > > >from which any other metric can be calculated.
> > > >
> > > > Nice idea, Joe! If it could only be made to work, you'd be a genius.
> > > > --
> > >
> > >
> > > OK Actually, this looks good as long as you have a directional
coupler
> > for
> > > > the frequency of interest! Paul didn't say. (SWR Bridge, actual
> bridge,
> > > for lower frequencies) You'll also have to allow for the difference
in
> > > location of the two samples by adjusting the line lengths to the two
> scope
> > > probes intil they are both at the same "distance" from the load.
> Judging
> > > phase shift from a circle can't be as good as simply looking at the
two
> > > waveforms. The scope horiz gain can be adjusted for some nice number
of
> > > divisions for each half cycle, say 9...
> > > I've got a 100MHz. dual trace storage scope, but any directional
> > > couplers around here only will be down to 130 Mhz at best... I do
also
> > have
> > > > a good bridge for down to 5 MHz., (also about 1 meter worth of stretch
> > > > line...so it is possible as long as the power level is within the
bridge
> > > capability.

> > > --
> > > Steve N, K,9;d, c. i My email has no u's.
> > >
> > >
> > >
> > >
> >
> >
>
>

1803. Re: development of the "Desert Ratt" regenerative receiver design

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-16 19:08:56 UTC
From: John Moriarity <k6qq@hdo.net>
Message-ID: <10i21gtg9pgsc38@corp.supernews.com>
Source record: 23935

> Or I should report the emitter voltage more
> exactly. I'll verify this. Tell me something,
> how terrible an idea is it to use disk ceramic
> for C15, C16, and C17? I have heard of
> disk ceramics being capable of conducting DC
> if made badly.

The disc ceramics should be ok, as long as they're
good.

I've never built this circuit, I'm just looking at it
as a paper exercise. DC measurements will usually
locate the problem. Spice may be overkill ;-)

GL & 73,

John - K6QQ

1804. Re: High Current Horror Stories

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-16 19:36:35 UTC
From: Wim Ton <wimton@blueyonder.co.uk>
Message-ID: <718Uc.176115$a8.66148@fe2.news.blueyonder.co.uk>
Source record: 23936
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur

> Anyone got any high-current/low-voltage horror stories they'd care to
> share?

I friend who is a power IC developer told me about FETs being blown up by
the enery stored in the self inductance of the IC bond wire.

Wim

1805. Re: Follow up.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-16 21:42:56 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cfr9p0$o19$1@titan.btinternet.com>
Source record: 23937

Paul wrote -
> Well you're doin' a great job, Reg. Keep it up! What's the next
> program you've got in mind to write? And which language to you
> generally use for this purpose?

==========

Paul, what makes you think I do a great job? Nobody ever tells me. It's not just idle curiosity. I'm not fishing. Feedback needed.

I always have several programs on the go at any point in time. Some have lasted, on and off, for years. But little to do with complexity. More to do with reliability and freedom from bugs.

I have an unfinished program which calculates the L and C values of a parallel tuned circuit. It can be connected in an antenna wire to resonate it to two frequencies. It is not a trap. The circuit's resonant frequency doesn't matter very much. But on the low side of resonance it behaves as an inductive loading coil and on the high side it behaves as a capacitance load. The antenna becomes resonant at one frequency below the wire's natural frequency, and at another frequency above the wire's natural frequency.

Unlike use of a trap, at both frequencies the wire radiates over the whole of its length. Furthermore, at its lower resonant frequency, the wire is shorter than a 1/4-wavelength.

I do not claim to have invented the arrangement. It has been previously discussed on a newsgroup. But I doubt if the L and C values have been explicitly calculated before.

I hesitate at making the program available to all and sundry for ever more, because I am unable to erect an actual antenna to prove the calculations correct. Although I am reasonably confident they are correct.

I use Pascal source code. Its an old language and you can't teach an old dog new tricks. But programming languages have settled down. There's little further room for improvement. I like Pascal because it is disciplined and structured. There's no such thing as a "Go-to" command as with BASIC. The compiler won't allow you to make logical mistakes. The quality of a program, the finished working product, doesn't have much to do with the language used. Chinese is just as good as English.

Reg, G4FGQ

1806. Re: QST 9/04 Xtal Osc Phase Noise ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-16 22:33:59 UTC
From: "Harold E. Johnson" <W4ZCB@mchsi.com>
Message-ID: <rDaUc.25808$TI1.9855@attbi_s52>
Source record: 23938

> I didn't look closely at this circuit, but the Pierce seems to have
the
> crystal from plate to grid, or drain to gate. This seems as though it is
> easy to slam the crystal pretty hard (depends on the drain resistor).
I'd
> worry about crystal dissipation as this causes drift and ageing issues.
In
> VCOs, the more tightly you couple the tuned circuit to the device, the
> poorer the phase noise. We always had to get the things to just barely
> oscillate under worst case conditions to get the lowest phase noise.
There
> are other ways, but memory fails...
>
> I like the good old standby common collector colpitts used in just about
all
> Motorola channel elements & oscillators. Hard to make one which won't
> oscillate.
> --
> Steve N,

Agreed, and the statement about starting with ~2 volts indicates way too much feedback at 12 volts. Certainly none of the above leads one to think it's a low noise circuit, just going to build one to measure. Suspect that the "no free lunch" still applies and that to get really low noise operation you still need current limiting, AGC 'd or otherwise and tricks like feeding the output thru the crystal to clean it up. Also believe there's probably a contribution by the draftsman again and the 22 meg gate resistor is really a second 2.2 Megohm .

W4ZCB

1807. Re: Follow up.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-16 22:57:37 UTC
From: Ken Scharf <wa2mzeNOTTHIS@bellsouth.net>
Message-ID: <MYaUc.143$Bm5.58@bignews1.bellsouth.net>
Source record: 23939

Paul Burridge wrote:
> On Mon, 16 Aug 2004 00:37:32 +0000 (UTC), "Reg Edwards"
> <g4fgq.regp@ZZZbtinternet.com> wrote:
>
>
>>Being in the Far East, the anti-radar defence rumour, spread by the Germans,
>>that exposure to radar beams caused sterilisation to radar mechanics had not
>>reached me.
>>
>>Anyway, as my wife at intervals some years later allowed me to think, I
>>eventually became the father of 5 children.
>
>
> Perhaps you shoulda stood a bit closer to the waveguides, Reg. You'd
> have been rich by now without all those kids. Plus you might even have
> grown an extra brain. ;-)
Hey there was this radar tech in the army who used to sit near the
big dish in the winter to keep warm. One day they increased the
radar transmitter power 10 fold but this tech wasn't informed.

Let's just say he won the 'Darwin' award for a job 'well done'

1808. Re: Follow up.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-16 23:56:36 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <i7i2i0de1v31o8kfcinm51lj3kdr04r7ev@4ax.com>
Source record: 23940

On Mon, 16 Aug 2004 21:42:56 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>Paul wrote -
>> Well you're doin' a great job, Reg. Keep it up! What's the next
>> program you've got in mind to write? And which language to you
>> generally use for this purpose?
>
>================================
>
>Paul, what makes you think I do a great job? Nobody ever tells me. It's not
>just idle curiosity. I'm not fishing. Feedback needed.

You make a worthwhile overall net contribution to the hobby, Reg. Your
programs save untold people an awful lot of time and f*cking about
with the kind of calculations that typically invite careless errors
and torn-out hair. I regularly visit your site and grab what I can!
Anyone with any sense would!
Will that suffice? ;-)
--

"What is now proved was once only imagin'd." - William Blake, 1793.

1809. Re: QST 9/04 Xtal Osc Phase Noise ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-17 00:18:28 UTC
From: Henry Kolesnik <kolesnik@sbcglobal.net>
Message-ID: <o9cUc.1165$U96.14@newssvr23.news.prodigy.com>
Source record: 23941

From Google on k2aop: www2.arrl.org/qst/feedback/2004/10/Feedback1004.pdf

Feedback A couple of errors crept into the K2AOP oscillator schematic in Technical Correspondence [Figure 1, "A Simple, Well-Behaved Crystal Oscillator," Sep 2004, p 67]. R1, shown as 22 M?, should be 2.2 M?. R5, shown as 100 ?, should be 1000 ?. The variable trimmer capacitor (shown as C4) should be C3 (18 pF). C4 should be a fixed capacitor.

--
73
Hank WD5JFR

"Harold E. Johnson" <W4ZCB@mchsi.com> wrote in message news:rDaUc.25808$TI1.9855@attbi_s52...
>
> > I didn't look closely at this circuit, but the Pierce seems to have
> the
> > crystal from plate to grid, or drain to gate. This seems as though it
is
> > easy to slam the crystal pretty hard (depends on the drain resistor).
> I'd
> > worry about crystal dissipation as this causes drift and ageing issues.
> In
> > VCOs, the more tightly you couple the tuned circuit to the device, the
> > poorer the phase noise. We always had to get the things to just barely
> > oscillate under worst case conditions to get the lowest phase noise.
> There
> > are other ways, but memory fails...
> >
> > I like the good old standby common collector colpitts used in just about
> all
> > Motorola channel elements & oscillators. Hard to make one which won't
> > oscillate.
> > --
> > Steve N,
>
> Agreed, and the statement about starting with ~2 volts indicates way too
> much feedback at 12 volts. Certainly none of the above leads one to think
> it's a low noise circuit, just going to build one to measure. Suspect that
> the "no free lunch" still applies and that to get really low noise
operation
> you still need current limiting, AGC 'd or otherwise and tricks like
feeding
> the output thru the crystal to clean it up. Also believe there's probably
a

> contribution by the draftsman again and the 22 meg gate resistor is really
a
> second 2.2 Megohm .
>
> W4ZCB
>
>

1810. k2aop@phx-az.com

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-17 00:27:10 UTC
From: Henry Kolesnik <kolesnik@sbcglobal.net>
Message-ID: <yhcUc.1168$tc6.253@newssvr23.news.prodigy.com>
Source record: 23942

John

Your oscillator in QST sure sounds appealing. Just saw the feedback on the errors. Are the 2N5460 fets critical for low phase noise or are MPF-102, 2N3819, 2N5457, 2N5484, 2N5486 useable for low phase noise? The reason I ask is because this site: http://www.danssmallpartsandkits.net/ has them real cheap. Have you measured the phase noise since ARRL can't or perhaps too busy?
tnx

--
73
Hank WD5JFR

1811. Re: QST 9/04 Xtal Osc Phase Noise ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-17 01:15:23 UTC
From: "Harold E. Johnson" <W4ZCB@mchsi.com>
Message-ID: <L_cUc.26503$TI1.6110@attbi_s52>
Source record: 23943

"Henry Kolesnik" <kolesnik@sbcglobal.net> wrote in message
news:o9cUc.1165$U96.14@newssvr23.news.prodigy.com...
> From Google on k2aop: www2.arrl.org/qst/feedback/2004/10/Feedback1004.pdf
>
> Feedback A couple of errors crept into the K2AOP oscillator schematic in
> Technical Correspondence [Figure 1, "A Simple, Well-Behaved Crystal
> Oscillator," Sep 2004, p 67]. R1, shown as 22 M?, should be 2.2 M?. R5,
> shown as 100 ?, should be 1000 ?. The variable trimmer capacitor (shown as
> C4) should be C3 (18 pF). C4 should be a fixed capacitor.
>
>
That draftsman has to know where every skeleton is buried within 100 miles
of Newington to hold down that job.

W4ZCB

1812. Re: QST 9/04 Xtal Osc Phase Noise ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-17 01:30:25 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <MPG.1b8aff90d57b716698970b@news-central.giganews.com>
Source record: 23944

In article <L_cUc.26503$TI1.6110@attbi_s52>, W4ZCB@mchsi.com says...
>
> "Henry Kolesnik" <kolesnik@sbcglobal.net> wrote in message
> news:o9cUc.1165$U96.14@newssvr23.news.prodigy.com...
> > From Google on k2aop: www2.arrl.org/qst/feedback/2004/10/Feedback1004.pdf
> >
> > Feedback A couple of errors crept into the K2AOP oscillator schematic in
> > Technical Correspondence [Figure 1, "A Simple, Well-Behaved Crystal
> > Oscillator," Sep 2004, p 67]. R1, shown as 22 M?, should be 2.2 M?. R5,
> > shown as 100 ?, should be 1000 ?. The variable trimmer capacitor (shown as
> > C4) should be C3 (18 pF). C4 should be a fixed capacitor.
> >
> >
> That draftsman has to know where every skeleton is buried within 100 miles
> of Newington to hold down that job.

Jeez, you're not kidding. That's outrageous. They may have just drawn
what the author submitted, though, so I'm not sure if it's the
draftsman's fault.

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

1813. Re: QST 9/04 Xtal Osc Phase Noise ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-17 01:46:29 UTC
From: "Harold E. Johnson" <W4ZCB@mchsi.com>
Message-ID: <VrdUc.26619$TI1.25169@attbi_s52>
Source record: 23945

> > That draftsman has to know where every skeleton is buried within 100
miles
> > of Newington to hold down that job.
>
> Jeez, you're not kidding. That's outrageous. They may have just drawn
> what the author submitted, though, so I'm not sure if it's the
> draftsman's fault.
>
> -- jm

Previous experience says it's the draftsperson. Or the rules he/she has to
follow.

W4ZCB

1814. Re: High Current Horror Stories

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-17 05:39:28 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <kSgUc.19074$jZ5.5215@clgrps13>
Source record: 23946
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur

Behold, Wim Ton signalled from keyed 4-1000A filament:

>> Anyone got any high-current/low-voltage horror stories they'd care to
>> share?
>
> I friend who is a power IC developer told me about FETs being blown up
> by the enery stored in the self inductance of the IC bond wire.
>
> Wim

That's why FET is known by many to stand for Fire Emitting Transistor ;-)

--
Gregg t3h g33k
"Ratings are for transistors....tubes have guidelines"
http://geek.scorpiorising.ca

1815. Re: development of the "Desert Ratt" regenerative receiver design

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-17 06:46:27 UTC
From: The Eternal Squire <eternalsquire@comcast.net>
Message-ID: <AoSdnTjRe41cNLzcRVn-pA@comcast.com>
Source record: 23947

Dear Mr. Moriarity,

Well, I finally used to scope to prove to myself
that I wired the phase splitter correctly.

I placed 100 mV p-p 1000 hz sine signal into C15. I get
proper 100 mv p-p 1000 hz sine signals that are
180 out of phase into pins 2 and 3 of U1.

R12 seems to be misspecified as well. On the
pdf schematic, R12 shows as "10W". I assumed
at the time that the W was simply a misconverted
omega symbol, so I had soldered in a 10 Ohm
resistor there.

U1 does not amplify at all!!! So, I figured
that perhaps it was a mis-typed "K". So I tried
a 10 K resistor.

With a 10K resistor as R12, I got a VERY nice
volume that filled the entire room. The only bad
news is that when I remove the input signal, I get
about 400 hz motorboating.

I wired a pot in place of R12, and found that the
threshold resistance was somewhat below 800 Ohms.
Much less than that, and U1 did not amplify. But
any value needed for U1 to amplify caused at least
a few hz of motorboating.

Please keep in mind that I am using ground plane
construction and that both leads and traces are
reasonably short.

Also keep in mind that I constructed only the
phase splitter and audio amp stages. Basically,
everything between C15 and the speaker, along with
the necessary D1/LED1/R4 voltage regulator.

My remaining hypothesis is this: Is it that I have
too much gain in U1? Should
I change the value of the capacitor, C18,
between pins 1 and 8 of U1 to adjust the maximum
gain in the hopes this will kill the motorboating?

I don't know how else to solve the motorboating
problem, especially in a circuit that NA5N billed

as inherently resistant to motorboating according
to the explanation sheet.

Again,

The Eternal Squire

John Moriarity wrote:
>>Or I should report the emitter voltage more
>>exactly. I'll verify this. Tell me something,
>>how terrible an idea is it to use disk ceramic
>>for C15, C16, and C17? I have heard of
>>disk ceramics being capable of conducting DC
>>if made badly.
>
>
> The disc ceramics should be ok, as long as they're
> good.
>
> I've never built this circuit, I'm just looking at it
> as a paper exercise. DC measurements will usually
> locate the problem. Spice may be overkill ;-)
>
> GL & 73,
>
> John - K6QQ
>
>

1816. Re: Saddam Hussein Found hanging in Jail Cell

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-17 09:13:58 UTC
From: hotmail user <user@hotmail.com>
Message-ID: <a1j3i0p12ohq6vdk35q624or4qbhs9clcj@4ax.com>
Source record: 23948
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.amateur.space,rec.radio.amateur.swap

On Sun, 15 Aug 2004 10:32:51 GMT, Tom Randy <Sorry@spamsucks.net>
wrote:

>On Sun, 15 Aug 2004 06:18:24 +0000, Steve wrote:
>
>> Well to tell the truth, I have seen this crap in dozens of newsgroups
>> that have nothing to do with ham radio.
>
>
>This kind of crap is posted in EVERY newsgroup.
>

Posted from computers infected with the virus.

1817. Re: development of the "Desert Ratt" regenerative receiver design

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-17 10:22:00 UTC
From: n1jpr@hotmail.com
Message-ID: <95a201e0.0408170222.4f4e3c3c@posting.google.com>
Source record: 23949

The Eternal Squire <eternalsquire@comcast.net> wrote in message news:

> R12 seems to be misspecified as well. On the
> pdf schematic, R12 shows as "10W".

Any resistor will do, as long as it can dissipate 10 watts!
Did you try with a 10W resitor?
I used a 25W one and it works perfectly ;)

Nonsense aside, I just dropped a line to Paul Harden at the VLA -
which btw is pro'lly the biggest RF-receiving system on this planet.
I hope he will find some time off his VLA retrofitting project to
visit here and clarify.

I made a few changes to the History file at
http://webfools.net/filippo/desert-ratt.html
adding a later version of Charles Kitchin's beginner oriented receiver
- one with a still lower part count, the result of a few month's
experimenting.

Also, a related matter:

Charles Kitchin mentioned that his bipolar designs for beginners have
become extremely popular, although his JFET ones perform much better.

a) Did anyone try the circuits proposed in Charles Kitchin's article
on "High Performance Regenerative Receiver Design"?

b) How does it compare to this
http://www.electronics-tutorials.com/receivers/regen-radio-receiver.htm
and to the DR?

c) Is the article still available? Is there a link I should add to the
DR history?

tnx es 73 de n1jpr/i2

1818. Re: development of the "Desert Ratt" regenerative receiver design

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-17 10:22:16 UTC
From: n1jpr@hotmail.com
Message-ID: <95a201e0.0408170222.67aa195b@posting.google.com>
Source record: 23950

The Eternal Squire <eternalsquire@comcast.net> wrote in message news:

> R12 seems to be misspecified as well. On the
> pdf schematic, R12 shows as "10W".

Any resistor will do, as long as it can dissipate 10 watts!
Did you try with a 10W resitor?
I used a 25W one and it works perfectly ;)

Nonsense aside, I just dropped a line to Paul Harden at the VLA -
which btw is pro'lly the biggest RF-receiving system on this planet.
I hope he will find some time off his VLA retrofitting project to
visit here and clarify.

I made a few changes to the History file at
http://webfools.net/filippo/desert-ratt.html
adding a later version of Charles Kitchin's beginner oriented receiver
- one with a still lower part count, the result of a few month's
experimenting.

Also, a related matter:

Charles Kitchin mentioned that his bipolar designs for beginners have
become extremely popular, although his JFET ones perform much better.

a) Did anyone try the circuits proposed in Charles Kitchin's article
on "High Performance Regenerative Receiver Design"?

b) How does it compare to this
http://www.electronics-tutorials.com/receivers/regen-radio-receiver.htm
and to the DR?

c) Is the article still available? Is there a link I should add to the
DR history?

tnx es 73 de n1jpr/i2

1819. Re: High Current Horror Stories

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-17 10:39:56 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <rvn3i0ppk0qn2rlvvldfvp6joh6jvs1hll@4ax.com>
Source record: 23951
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur

On Tue, 17 Aug 2004 05:39:28 GMT, Gregg <nospam@unknown.org> wrote:

>Behold, Wim Ton signalled from keyed 4-1000A filament:
>
>>> Anyone got any high-current/low-voltage horror stories they'd care to
>>> share?
>>
>> I friend who is a power IC developer told me about FETs being blown up
>> by the enery stored in the self inductance of the IC bond wire.
>>
>> Wim
>
>That's why FET is known by many to stand for Fire Emitting Transistor ;-)

Not so much your GP FETs, but power MOSFETs, certainly. They do tend
to go 'pop' quite spectacularly.

--

"What is now proved was once only imagin'd." - William Blake, 1793.

1820. Re: QST 9/04 Xtal Osc Phase Noise ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-17 12:14:03 UTC
From: "Harold E. Johnson" <W4ZCB@mchsi.com>
Message-ID: <fEmUc.310847$JR4.107179@attbi_s54>
Source record: 23952

> I do most of my home brewing at VHF/UHF so clean oscillators
> are valued.
>
You want a CLEAN oscillator for UHF and Microwave, use the Butler from Stephensen in QEX Nov/Dec 1999.Current limited and works every time. I use a half dozen in the shop as per original, and a slightly modified 5 volt version is in the N2PK VNA at 150 MHz. THAT'S a low noise oscillator!

W4ZCB

1821. Re: High Current Horror Stories

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-17 13:41:31 UTC
From: Bill <Bill@birchnet.demon.co.uk>
Message-ID: <qCgvhxoLvfIBFwq2@birchnet.demon.co.uk>
Source record: 23953
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur

In message <pgguh0dee6ars3kmv3o13i7ubcmf3efqbo@4ax.com>, Paul Burridge
<pb@notthisbit.osiris1.co.uk> writes
>Hi all,
>
>Anyone got any high-current/low-voltage horror stories they'd care to
>share? You know; where your messin' about with a car battery or
>something like that and forget to take your watch off or whatever.
>
>p.
Although I knew how crowbar protection worked on PSUs I was shown in a
dramatic way when I used a bench PSU to charge a car battery, for what
ever reason the crowbar operated and put a short across the battery,
lots of bright white wire and smoke for a few seconds.
A colleague of mine was a vehicle radio fitter and always wore metal
watch straps, until the day one bridged a battery supply and chassis. He
always wears a leather strap now and takes his watch off before working.
How more of us are not maimed or killed I'm not sure.
--
Bill

1822. Re: High Current Horror Stories

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-17 13:49:44 UTC
From: aRKay <REMOVEarkay@qsl.net>
Message-ID: <REMOVEarkay-6E3E5E.08494617082004@newssvr22-ext.news.prodigy.com>
Source record: 23954
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur

Back in the 60's I recall being at a party where everyone had too much to drink and some YL's car would not start. The 'guys' went out to help and checked the battery water level. The guy doing the checking could not see as it was dark and asked for light. He was talking about a flashlight and a helping hand showed up with a Zippo lighter. The battery exploded! Very lucky none were killed or blinded.

1823. Re: k2aop@phx-az.com

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-17 14:45:45 UTC
From: Henry Kolesnik <kolesnik@sbcglobal.net>
Message-ID: <tSoUc.1614$262.1479@newssvr23.news.prodigy.com>
Source record: 23955

Boy, I wonder what I did here? I also tried sending a message to k2aop but
it came back. Must have fat fingered something or total brain loss.

--
73
Hank WD5JFR
"Henry Kolesnik" <kolesnik@sbcglobal.net> wrote in message
news:yhcUc.1168$tc6.253@newssvr23.news.prodigy.com...
> John
>
> Your oscillator in QST sure sounds appealing. Just saw the feedback on
the
> errors. Are the 2N5460 fets critical for low phase noise or are MPF-102,
> 2N3819, 2N5457, 2N5484, 2N5486 useable for low phase noise? The reason I
> ask is because this site: http://www.danssmallpartsandkits.net/ has them
> real cheap. Have you measured the phase noise since ARRL can't or perhaps
> too busy?
> tnx
>
> --
> 73
> Hank WD5JFR
>
>

1824. Desert Rat Dilemma

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-17 16:08:43 UTC
From: haf47@juno.com
Message-ID: <f03bf94f.0408170808.6d50c01b@posting.google.com>
Source record: 23956

Hello to all,

As I approach senility I keep on having problems like the following:

I notice on the Desert Rat PDF file, DR2, that a short note states that the coil should be wound around the PCB. I have never heard of doing this before but it hardly matters as I had planned on building this circuit on perfboard or Manhatten style, and using my usual pill bottle as the coil form.

But now I am curious. Is there a board available for this project? I would like to know this method of winding a coil on a PCB as it might come in handy for a future project.

Or, have I just made an idiot of myself for misunderstanding how this simple coil should be wound? I am sure I will have many who will be glad to point this out to me.

73 and good wishes to all de WA2AFD

1825. Re: Desert Rat Dilemma

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-17 16:28:35 UTC
From: troglodite@aol.com
Message-ID: <20040817122835.26478.00004013@mb-m03.aol.com>
Source record: 23957

>
>As I approach senility I keep on having problems like the following:
>

Me too, and the frightening thing is that I'm still working every day and driving on the highway! BTW, don't those pill bottles make wonderful coil forms? Nice high Q. Good for storing small hardware, transistors, all the stuff we used to use baby food jars for in the old days. And, the supply seems to increase every day, just like wire coat hangers. You have to do SOMETHING with 'em or they'll take over!

1826. Soldering Suprise

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-17 16:32:14 UTC
From: K&#65533;HB <groupk0hb@earthlink.net>
Message-ID: <iqqUc.3869$3O3.1751@newsread2.news.pas.earthlink.net>
Source record: 23958
Cross-posted to: rec.radio.amateur.policy,rec.radio.amateur.homebrew,rec.radio.amateur.misc

http://science.nasa.gov/headlines/y2004/16aug_solder.htm

1827. Ham Radio For Dummies

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-17 19:10:46 UTC
From: andyc01 <andyc01@ntlworld.com>
Message-ID: <WKsUc.218$nI5.50@newsfe3-gui.ntli.net>
Source record: 23959

Ham Radio For Dummies

Discover how to:

Understand ham jargon
Communicate on the air
Prepare for the license exam
Set up a radio shack
Help in an emergency or natural disaster
Be a ham on the go
Explanations in plain English
"Get in, get out" information
Icons and other navigational aids
A dash of humor and fun
380 Pages supplied on cdrom in popular pdf format (reader software supplied)

Ebay id number is 5715238968

http://www.ebay.co.uk

1828. Re: QST 9/04 Xtal Osc Phase Noise ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-17 19:41:31 UTC
From: "Harold E. Johnson" <W4ZCB@mchsi.com>
Message-ID: <LbtUc.2089$Fg5.57@attbi_s53>
Source record: 23960

> I did say..
>
> * --I'd use a butler or colpits nominally.--*
>
> In that last post.
>
> I'm familiar with the Stephensen design, it's one of a family. Also
> Ham Radio magazine of years gone by did several
> articles surveying crystal oscilators, that topology Both the QST
> Pierce and Stephansen Butler date back to the vacuum days.
> I might add I've been around electronics that long too.
>
So you did. I have had troubles with the Butler many times when using both tubes and bipolars. Stephensen explained to me why, and I've never built one of his that didn't work as planned right out of the chute. PSpice may have helped, but the bipolar/FET was a great advance. I don't quite go back to spark, but am getting pretty long in the tooth as well.

Regards

W4ZCB

1829. NEW! - Icom Message Boards

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-17 21:21:22 UTC
From: Eric Sims - k4sci <k4sci@bellsouth.net>
Message-ID: <JEuUc.112$ph4.106@bignews1.bellsouth.net>
Source record: 23961
Cross-posted to: rec.ham-radio,rec.radio.amateur,rec.radio.amateur.digital,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

Now online for the Icom radio owner... Icom Radios Dot Net

This is a new website with forums for all of Icom's current rigs...But we need users! Surf by now!

http://www.icomradios.net

Click on FORUMS and sign up with your callsign.

Thank's for your support!

Ric - k4sci

1830. Re: Soldering Suprise

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-17 23:18:00 UTC
From: "G.Beat" <now9spamgb@no.comcast.spam.net>
Message-ID: <ImwUc.33165$TI1.18088@attbi_s52>
Source record: 23962
Cross-posted to: rec.radio.amateur.policy,rec.radio.amateur.homebrew,rec.radio.amateur.misc

"K&#65533;HB" <groupk0hb@earthlink.net> wrote in message
news:iqqUc.3869$3O3.1751@newsread2.news.pas.earthlink.net...
> http://science.nasa.gov/headlines/y2004/16aug_solder.htm
>
>
Yes, I did see that. Rosin flux in orbit around the solder !

Did you also notice that they were using a Weller TCP series iron (50 year
old Magnistat design).
Quite a few good reasons for choosing this specific model for space
station - KIS - easy to repair - virtually foolproof -
needs only 24 volt (or 12 volt) bus to operate .. with no need for base unit
with electronics.

w9gb

1831. Re: D104 and the 706

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-18 00:39:21 UTC
From: "G.Beat" <now9spamgb@no.comcast.spam.net>
Message-ID: <ZyxUc.314946$JR4.7665@attbi_s54>
Source record: 23963

"PDRUNEN" <pdrunen@aol.com> wrote in message
news:20040814131640.12089.00003510@mb-m01.aol.com...
> Hi Group,
>
> Got a 706 which has a 500 or 600 ohm mic input impedance. I have a D104
> which
> best I can tell has a high output impedance.
>
> If I use a 60Hz step down transformer, say, 120V in gives 10v out, the
> turn
> ratio is 120/10 or 12:1. Given that I attach the mic output to the
> primary and
> the rig on the secondary, this should step down the impedance by a factor
> of
> 12^2 or 144 so that a D104 with 50K on the output is now seen as about 400
> ohm.
>
> Here are a few questions,
>
> 1: Will a 60Hz transformer work well keeping the base sound and pass upto
> 3KHz?
>
> 2: Is the calculation of the impedance correct?
>
> 3: Would the audio as seen on the secondary be reduced by a factor of 12
> such
> that the audio would be weak?
>
> 4: Other?
>
> Tnx de KJ4UO

Paul -

Here are additional links on Astatic D104 restorations and "how to's" for
using with modern & Icom radios
.. TIME FOR READING and PRINTING ...

W8CWE has a web page -- just what you are asking about (Google.com is great)
http://www.qsl.net/w8cwe/d104/d104.html

This is a D104 index you should "bookmark" in your browser
http://www.qsl.net/wa2mzf/d104.html

Doug DeMaw, W1FB (sk) FET circuit for D104 - CQ February 1994
(mentioned in web pages below)

http://www.qsl.net/wa2mzf/d1045.jpg

http://members.cox.net/n4jk/d104.htm

http://www.n9vv.com/K8LKC/k8lkc-d104.html

D104 and Icom equipment
http://www.qsl.net/wa2mzf/d104icom.jpg

IF you are looking for an 8 conductor coiled cord .. BUX COMM has a great
bargain 8FTCURLY at $ 1.99 !!!!
Would look nice on the D104
http://www.packetradio.com/xsinventory.htm

W9GB

1832. Re: D104 and the 706

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-18 00:49:04 UTC
From: "G.Beat" <now9spamgb@no.comcast.spam.net>
Message-ID: <4IxUc.34289$TI1.27718@attbi_s52>
Source record: 23964

"PDRUNEN" <pdrunen@aol.com> wrote in message
news:20040814131640.12089.00003510@mb-m01.aol.com...
> Hi Group,
>
> Got a 706 which has a 500 or 600 ohm mic input impedance. I have a D104
> which
> best I can tell has a high output impedance.
>
> If I use a 60Hz step down transformer, say, 120V in gives 10v out, the
> turn
> ratio is 120/10 or 12:1. Given that I attach the mic output to the
> primary and
> the rig on the secondary, this should step down the impedance by a factor
> of
> 12^2 or 144 so that a D104 with 50K on the output is now seen as about 400
> ohm.
>
> Here are a few questions,
>
> 1: Will a 60Hz transformer work well keeping the base sound and pass upto
> 3KHz?
>
> 2: Is the calculation of the impedance correct?
>
> 3: Would the audio as seen on the secondary be reduced by a factor of 12
> such
> that the audio would be weak?
>
> 4: Other?
>
> Tnx de KJ4UO

One more

D104 mods
http://www.d104mods.com/

1833. Re: development of the "Desert Ratt" regenerative receiver design

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-18 02:34:48 UTC
From: John Moriarity <k6qq@hdo.net>
Message-ID: <10i5g0qo0s24v7b@corp.supernews.com>
Source record: 23965

> Dear Mr. Moriarity,

"Mister Moriarity"??? ;-) How about "John"?

> R12 seems to be misspecified as well. On the
> pdf schematic, R12 shows as "10W". I assumed
> at the time that the W was simply a misconverted
> omega symbol, so I had soldered in a 10 Ohm
> resistor there.

Ten ohms is the "right" value, looking at a LM386
data sheet.

> U1 does not amplify at all!!!

The LM386 should have plenty of gain if wired
correctly with these values. Something is very
wrong!

I am also suspicious of the connection of pin 7
on the LM386. I would disconnect it from the
junction of R12 and Cwhateveritis, and separately
bypass it to ground with a 10 microfarad cap
(plus side to pin 7). You might even get away
with not connecting pin 7 at all!

73, John - K6QQ

1834. Re: High Current Horror Stories

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-18 03:00:53 UTC
From: Roger Halstead <Delete-Invallid.groups@tm.net>
Message-ID: <c3h5i0huvh1d123a8kn700dvm06b7dj836@4ax.com>
Source record: 23966
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur

On Tue, 17 Aug 2004 05:39:28 GMT, Gregg <nospam@unknown.org> wrote:

>Behold, Wim Ton signalled from keyed 4-1000A filament:
>
>>> Anyone got any high-current/low-voltage horror stories they'd care to
>>> share?
>>
You should see a 440 RMS working volt 50,000 Joule MOV on a 600 amp
440 line that has received an over voltage spike.

The only thing left are the connecting wires and they are pointed
straight out. They are blinding if you happen to be looking at one
when it blows, or deafening if you are near. They'd put any 12 gauge
shotgun to shame.

These things are about 3 X 4 inches and just shy of an inch thick.
Used across a pair of 1200 VAC 1200A (as I recall) SCRs (Thyristors)

Roger Halstead (K8RI & ARRL life member)
(N833R, S# CD-2 Worlds oldest Debonair)
www.rogerhalstead.com
>> I friend who is a power IC developer told me about FETs being blown up
>> by the enery stored in the self inductance of the IC bond wire.
>>
>> Wim
>
>That's why FET is known by many to stand for Fire Emitting Transistor ;-)

1835. schema for a power amplifier

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-18 05:02:13 UTC
From: manu <manu.07@laposte.net>
Message-ID: <4122e2ff$0$18618$626a14ce@news.free.fr>
Source record: 23967

Hello
i schearch a schema for a power amplifier with transistor on 160 to 10m.
Tnx for your help

1836. Re: development of the "Desert Ratt" regenerative receiver design

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-18 05:45:20 UTC
From: The Eternal Squire <eternalsquire@comcast.net>
Message-ID: <_fSdnROE6fVzcb_cRVn-pQ@comcast.com>
Source record: 23968

Hi, "John"!

I looked up an LM386 data sheet from National.
I also consulted your advice.

It turns out that the best solution is to
strike C18 and R12 completely, and to change
C20 to 10 microfarad.

Looking at the original schematic, it makes a
lot of sense... if you're trying to amplify
100 millivolt p-p of audio into 1 V (1000 millivolt)
p-p of audio, we clearly only need a factor
of 10 amplification, a.k.a. 20 decibel.

This is best accomplished simply by leaving
the connection between pins 1 and 8 open,
which by the way programs the LM386 for
its default 20 decibel amplification.

I found that R12 between pin 5 and pin 7 simply
provided a greater chance of a ground loop, so
eliminating that provided less chance of
motorboating even at 20 decibel amplification.

Then I took your advice to simply bypass
pin 7 to ground with a 10 microfarad capacitor.
This was easily enough done by changing
C10 from .1 microfarad to 10 microfarad.

With 100 millivolt p-p coming into the phase
splitter, the scope reads a clipped sine wave
at several volts... meaning that I have plenty
of gain to spare, I should even crank down the
input a little.

Because of the LM386 is amplifying a differential
signal, our effective amplification is actually
a factor of 20... so it would seem that nominal
input signal is actually 50 millivolt.

So, I believe that I have a working version of
that section of the circuit. I think I will
work on the detector portion (Q3) next, and
try injecting a 20 millivolt rf carrier at
14 Mhz.

I'll be back in a couple days with the results.

The Eternal Squire

John Moriarity wrote:
>>Dear Mr. Moriarity,
>
>
> "Mister Moriarity"??? ;-) How about "John"?
>
>
>>R12 seems to be misspecified as well. On the
>>pdf schematic, R12 shows as "10W". I assumed
>>at the time that the W was simply a misconverted
>>omega symbol, so I had soldered in a 10 Ohm
>>resistor there.
>
>
> Ten ohms is the "right" value, looking at a LM386
> data sheet.
>
>
>>U1 does not amplify at all!!!
>
>
> The LM386 should have plenty of gain if wired
> correctly with these values. Something is very
> wrong!
>
> I am also suspicious of the connection of pin 7
> on the LM386. I would disconnect it from the
> junction of R12 and Cwhateveritis, and separately
> bypass it to ground with a 10 microfarad cap
> (plus side to pin 7). You might even get away
> with not connecting pin 7 at all!
>
> 73, John - K6QQ
>
>

1837. Re: schema for a power amplifier

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-18 09:32:15 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <zmFUc.20779$jZ5.942@clgrps13>
Source record: 23969

Have you tried the ARRL Radio Amateur's Handbook?

--
Gregg t3h g33k
"Ratings are for transistors....tubes have guidelines"
http://geek.scorpiorising.ca

1838. Re: Desert Rat Dilemma

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-18 10:59:27 UTC
From: fmmck@aol.com
Message-ID: <20040818065927.15036.00001745@mb-m02.aol.com>
Source record: 23970

<< I notice on the Desert Rat PDF file, DR2, that a short note states
that the coil should be wound around the PCB. >>

Howard-

There may be a misunderstanding. I didn't see the note, but had the impression
the coil was to be wound on a 35mm film cannister.

Looking at the other references, there were a couple of alternate plastic coil
forms suggested, with differing numbers of turns depending on diameter.

73, Fred, K4DII

1839. Re: development of the "Desert Ratt" regenerative receiver design

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-18 11:05:57 UTC
From: fmmck@aol.com
Message-ID: <20040818070557.15036.00001746@mb-m02.aol.com>
Source record: 23971

<< With a 10K resistor as R12, I got a VERY nice
volume that filled the entire room. The only bad
news is that when I remove the input signal, I get
about 400 hz motorboating. >>

Squire-

I believe R12 should be ten ohms. It provides a load at higher frequencies where the speaker or headphone impedance might be too high for stability.

The motorboating is most likely feedback via the power supply line. Therefore, the ten ohm series resistor should be higher (perhaps 100 ohms?), and the filter capacitor at the IC's power terminal could be increased.

73, Fred, K4DII

1840. Re: Schematic for a RF power amplifier for HF bands

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-18 13:02:36 UTC
From: "G.Beat" <now9spamgb@no.comcast.spam.net>
Message-ID: <MrIUc.30942$mD.13302@attbi_s02>
Source record: 23972

"manu" <manu.07@laposte.net> wrote in message
news:4122e2ff$0$18618$626a14ce@news.free.fr...
> Hello
>
> I am searching a schematic for a RF power amplifier using transistors
> (Bipolar or FET) that will work on
the amateur HF bands (e.g., 160 through 10 meters).
>
> Thank you for your help
>
> Manu

The best references for RF transistor amplifier design are the Application Notes and Books by Helge Granberg, K7ES (sk). Helge worked at Motorola and passed away at age 63 in 1996. His Motorola application notes (AN762, AN749, AN758, AR164, AR347, AR511 etc.) include the theory, schematics and PC board layouts for construction of several different designs. Motorola use to publish all of Helge's Application Notes, but I have not seen these on the Motorola web site recently. Some of these Helge's Application Notes and Motorola Engineering Bulletins are available here:
http://www.communication-concepts.com/application_notes.htm

Many of Helge's designs (PC boards) and hard to find parts are available from Communication Concepts
http://www.communication-concepts.com/

He co-authored a book "RADIO FREQUENCY TRANSISTORS Principles and Practical Applications 2nd edition • 290 pages" with
Norman Dye. This book is available from RF Parts (www.rfparts.com) and
other book dealers. RF Parts also routinely handles international shipping.

http://www.fetchbook.info/search_Helge_Granberg/searchBy_Author.html

Some HF kits (RF Electronics -Lee Martin, KD4YBC) are also available for export
http://users.aol.com/rfelectron/rfelect.htm

http://www.qsl.net/gm0uhc/page6.html

Mike Grierson, G3TSO designed a 140W RF amplifier that appeared in January 1992 issue of RadCom (contact them for a back issue)
His web site does have photos.
http://www.qsl.net/g3tso/HFLinearFrameSet1.html

http://www.qsl.net/g3tso/images/Schematics/sshflin.pdf

JA0TJU is an excellent resource and reference for "broadcast style" RF amplifier construction
http://www.ginzado.ne.jp/~hamradio/tju/2c3286.htm

Pieter Ibelings, N4IP has a web site for construction and references Helge Granberg and Joel F. Paladino, N6AMG (sk) work in QEX ad QST.
http://www.ibelings.com/n4ip/mrf157.html

Dave Powis,
http://www.qsl.net/dl4mup/UKW45/UKW45_w.pdf

This should get you started on some research. Building is 90% reading, planning & design !

w9gb

1841. ICOM R-71A for sale

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-18 13:59:41 UTC
From: afink@rmi.net
Message-ID: <b913b99e.0408180559.237e1528@posting.google.com>
Source record: 23973

Mid-'80's ICOM R71A for sale. Recently removed from sailboat as I am looking for RX/TX capability and this SSB is RX only. It works. It shows no outward signs of any abuse. It comes with owner's manual and some schematics. No AC power cord.

Since anyone interested in such a machine knows its value, I'll ask that you simply make me an offer that will satisfy both of us.

Al Fink
KC0MCW
Denver, CO
afink@rmi.net
303-377-1528

1842. FA:MANUALS (ORIG) Eico,Ameritron,Sencore + stuff

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-18 16:42:17 UTC
From: Heytubeguy <heytubeguy@worldnet.att.net>
Message-ID: <JFLUc.472287$Gx4.373030@bgtnsc04-news.ops.worldnet.att.net>
Source record: 23974

See manuals and other 'stuff' at:

http://cgi6.ebay.com/ws/eBayISAPI.dll?ViewSellersOtherItems&userid=heytubeguy&completed=0&sort=3&since=-1&include=0&page=1&rows=25

Tnx for looking,
heytubeguy

1843. Re: QST 9/04 Xtal Osc Phase Noise ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-18 19:57:16 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <cg0cfe$8eq$1@newshost.mot.com>
Source record: 23975

<nospam@nouce.bellatlantic.net> wrote in message
news:oru2i0d2mabat345ksgrou6v3pvt39nji9@4ax.com...
> On Mon, 16 Aug 2004 16:59:31 GMT, "Harold E. Johnson"
> <W4ZCB@mchsi.com> wrote:
>
> >> I have built it with MPF102s (invert the circuit for correct
> >> polarities). Works as specified.
> >>
> >I realize it will oscillate, what's the phase noise?
> >
> >W4ZCB
>
> Well havent the ability to measure it accuratly but I have compared it
> using a crystal notch filter (see EMRFD) to attenuate the center freq
> and it's pretty decent to the limits of the test rig.

I think yo have to have real low noise test equip to measure even a petty
crappy xtal osc.

--
Steve N, K,9;d, c. i My email has no u's.

1844. Re: Desert Rat Dilemma

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-18 21:50:48 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <cg0j4a$9iv$1@newshost.mot.com>
Source record: 23976

"Troglodite" <troglodite@aol.com> wrote in message
news:20040817122835.26478.00004013@mb-m03.aol.com...
> ...BTW, don't those pill bottles make wonderful coil
> forms? Nice high Q. Good for storing small hardware, transistors, all the
stuff
> we used to use baby food jars for in the old days.

Works well with plastic 35mm film cans as well...
Carefully drill a hole in the top the size of your coax - snug fit. If its
one of those fancy adult-proof tops, this may not be good. Go to a film can.

Cut a slit from the hole to the edge, with the trusty ole' Exacto knife.

Slip coax into hole via slit, connector towards indside of top.

Pull coax so connector is up against top.

Snap cover onto container.

Hopefully this is useful in some way...
--
Steve N, K,9;d, c. i My email has no u's.

1845. Re: QST 9/04 Xtal Osc Phase Noise ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-18 22:21:15 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <cg0ktd$9u0$1@newshost.mot.com>
Source record: 23978

"Harold E. Johnson" <W4ZCB@mchsi.com> wrote in message
news:L_cUc.26503$TI1.6110@attbi_s52...
>
> "Henry Kolesnik" <kolesnik@sbcglobal.net> wrote in message
> news:o9cUc.1165$U96.14@newssvr23.news.prodigy.com...
> > From Google on k2aop:
www2.arrl.org/qst/feedback/2004/10/Feedback1004.pdf
> >
> > Feedback A couple of errors crept into the K2AOP oscillator schematic in
> > Technical Correspondence [Figure 1, "A Simple, Well-Behaved Crystal
> > Oscillator," Sep 2004, p 67]. R1, shown as 22 M?, should be 2.2 M?. R5,
> > shown as 100 ?, should be 1000 ?. The variable trimmer capacitor (shown
as
> > C4) should be C3 (18 pF). C4 should be a fixed capacitor.
> >
> >
> That draftsman has to know where every skeleton is buried within 100 miles
> of Newington to hold down that job.
>
> W4ZCB

The errors in the schematics AND the articles, including content errors is
rather disturbing. Technical accuracy is hard for the editors to insure, if
they look at all. Hey! We're amateurs after all...
--
Steve N, K,9;d, c. i My email has no u's.

1846. Re: Follow up.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-18 23:04:04 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cg0n94sjf1@titan.btinternet.com>
Source record: 23977

"Paul Burridge" wrote -
> I regularly visit your site and grab what I can!
> Anyone with any sense would!
> Will that suffice? ;-)

==========

Well, it will have to do. Thanks Paul!

For the last one or two years of my varied career I was listed in the firm's phone directory as "Chief Standards Engineer". I had under some sort of control the Quality Managers of 3 factories and laboratories.

Strictly speaking, "Quality" is defined as the ability to conform to specified requirements. It can be statistically measured as can anybody's performance.

But in my case I would prefer the more lax and broader definition of Quality : The ability to serve the intended purpose.

"Reliability" is defined as Quality versus Time.

My programs, produced in retirement for a variety of reasons and purposes, have now been available to the 'rabble' for 5 or 6 years. ;o)

Here I go again - pouring out my heart with the aid of a bottle of Valencia red. It's supposed to be good for the arteries. It didn't do Franco any harm. But a pity about Guenica as depicted by Pablo Picasso. He should have done Nagosaki (which I witnessed from the air) and Hiroshima (which I visited on foot). Unfortunately my camera had a pin-hole in the bellows but the experience, nevertheless, profoundly influenced, you could say biassed, my early education.

Reg, G4FGQ

1847. Texas Balloon Launch Team (BLT) to fly ham radio and GPS this saturday 10am

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-19 00:38:48 UTC
From: Craig Davidson <nospam@earthlink.com>
Message-ID: <sESUc.27239$9Y6.24209@newsread1.news.pas.earthlink.net>
Source record: 23979
Cross-posted to: rec.radio.scanner,rec.radio.shortwave,rec.radio.amateur.space,rec.radio.amateur.homebrew,rec.radio.amateur.equipment,rec.radio.amateur.digital.misc

It's time again for the Texas Balloon Launch Team (BLT) to fly their 20th
mission.

The Primary GPS APRS transmitter is on 440.950 Mhz FM

The Backup GPS system transmits on: 445.925 MHz FM

There is also a Crossband voice Repeater on the balloon which
transmits on 446.000 MHz FM

In addition there will be a Live television Camera transmitting its signal
on
1255 MHz FM

The balloon will take about one hour to rise to 100,000 feet where the
balloon explodes and the electronics payload parachutes back to earth for
another hour. You should be able to hear the balloon transmitting from over
300 miles away.

They will launch from the same airport in Wharton Texas
(http://www.airnav.com/airport/5R5) on Saturday morning at 10am and will
use most of the same equipment as BLT 19 last year. If the frequencies or
launch site change then I will post another message by Saturday morning.
The airnav web page shown above has a handy distance calculator where you
can enter the code for your local airport and it will tell you the distance
from wharton.

The GPS coordinates transmitted from the balloon are used to locate the
landing site.

The electronics package is also fitted with a Piezoelectric beeper to help
the recovery
crew find the payload in "that last 100 feet of tall grass".

See the photos from previous missions at:
http://www.qsl.net/w5acm/b18_1825.html
http://www.qsl.net/w5acm/b18_1826.html
http://www.qsl.net/w5acm/b18_1827.html
http://www.qsl.net/w5acm/b19.html

For all the non hams out there:

The GPS data is transmitted in APRS format.

To learn more about APRS click here:
http://www.tapr.org/tapr/html/sigf.html
http://web.usna.navy.mil/~bruninga/aprs.html

Receivers are available from Ham radio stores such as Amateur Electronic Supply http://www.aesham.com/ or Ham Radio Outlet http://www.hamradio.com/ Or you could look on Ebay for a 440 MHz FM receiver. You can also get a police scanner from Radio Shack to do the job. Make sure it receives the proper frequency.

You also need an antenna. I recommend the arrow antenna to get started:

http://www.arrowantennas.com/146-437.html

You will also need a packet modem to decode the APRS audio tones. The Kantronics KPC3 is an example http://www.kantronics.com/kpc3+.htm These units plug into the speaker jack of the receiver and also to the RS232 serial port of your computer.

Or you could try to decode the audio tones with software and your sound card instead of buying the modem above. Check out these web sites for packet software:

http://www.qsl.net/soundcardpacket/
http://packetradio.com/rascalmkv.htm
http://www.elcom.gr/sv2agw/agwsc.htm

1848. Balloon launching

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-19 00:54:46 UTC
From: Craig Davidson <nospam@earthlink.com>
Message-ID: <qTSUc.27251$9Y6.26365@newsread1.news.pas.earthlink.net>
Source record: 23980
Cross-posted to: rec.radio.scanner,rec.radio.shortwave,rec.radio.amateur.space,rec.radio.amateur.homebrew,rec.radio.amateur.equipment,rec.radio.amateur.digital.misc

This web site has more info on ham radio balloon launches.

http://users.crosspaths.net/wallio/

1849. Re: Receive NDB beacons ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-19 02:43:05 UTC
From: Craig Davidson <nospam@earthlink.com>
Message-ID: <ZsUUc.6513$3O3.5759@newsread2.news.pas.earthlink.net>
Source record: 23981
Cross-posted to: alt.radio.scanner,rec.radio.amateur.homebrew,rec.radio.scanner

Dave Holford wrote in message
<411838AA.5FC4ABD2@.deletethis.sympatico.ca>...
>
>
>Steven Swift wrote:
>>
>> > Hello everybody,
>> > I wonder if anyone has already tried to receive the signal of NDB
beacons ?
>> > These are long-range radio beacons, used by aircrafts for navigation,
>> > operating in the frequencies from stg like 200 to 500 KHz I think.
Their
>> > signal is AM-modulated with a sound signal of their code (three
letters) in
>> > morse.
>>
>> Just got back from a cruise to Alaska. Took my Sony 7600GR with my.
Sitting on
>> the top deck at night I could get 6-10 beacons, US and Canada, using just
>> the internal antenna. I guess bush pilots still use the beacons.
>>
>> HF was also really good. At the WWV and WWVH signals came in easily.
>>
>> Steve.
>>
>> --
>
>I managed to collect quite a number on a caribbean cruise, several more
>in Florida, and on a good night the band is full of them. Pretty hard to
>find a major airport which doesn't have at least 4 NDBs.
>
>I have friends who collect them by the hundreds, it is a very active sub
>hobby and there are literally thousands of NDBs scattered all over the
>globe. I'm not really into it but I have seen lists of several hundred
>North American beacons and any pilot will have charts and documents
>listing them.
>
>Dave

You can look them up at http://www.airnav.com/navaids/

or get a list of their locations from:
http://131.238.38.204/~sarangan/aviation/garmin/index.html

1850. New Colorado Amateur Radio group

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-19 03:14:35 UTC
From: Mama Bear <MamaBear@NoSpam.noo>
Message-ID: <Xns9549D82A238EMama@206.124.0.13>
Source record: 23982
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.dx,rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,co.general

http://groups.yahoo.com/group/COAR/

--
- Mama Bear

1851. Re: development of the "Desert Ratt" regenerative receiver design

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-19 03:38:19 UTC
From: The Eternal Squire <eternalsquire@comcast.net>
Message-ID: <BcKdnTw7a7U0vbncRVn-sQ@comcast.com>
Source record: 23983

Fred,

Maybe R12 needs to shunt the speaker to ground, rather than the
output of U1. If R12 is needed just for AC response, then it doesn't
make sense for it to conduct the DC between pins 5 and 7. By
shunting the speaker it should force the speaker impedance closer
to 10 ohms. I'll try that.

The Eternal Squire

Fred McKenzie wrote:
> << With a 10K resistor as R12, I got a VERY nice
> volume that filled the entire room. The only bad
> news is that when I remove the input signal, I get
> about 400 hz motorboating. >>
>
> Squire-
>
> I believe R12 should be ten ohms. It provides a load at higher frequencies
> where the speaker or headphone impedance might be too high for stability.
>
> The motorboating is most likely feedback via the power supply line. Therefore,
> the ten ohm series resistor should be higher (perhaps 100 ohms?), and the
> filter capacitor at the IC's power terminal could be increased.
>
> 73, Fred, K4DII
>

1852. Re: My Unbelievable story is translation

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-19 05:38:14 UTC
From: "Joe Bramblett, KD5NRH" <kd5nrh@yahoo.spam.com>
Message-ID: <Xns954A695BF784kd5nrhyahoocom@38.144.126.105>
Source record: 23984

"Zoran Dimitrijevic" <nacomp@EUnet.yu> wrote in news:cenlu9$ev7$13
@news.eunet.yu:

> http://www30.brinkster.com/aferatelekom/Story.zip

This much more must twinge keep than that tale.

http://sokaisha.hp.infoseek.co.jp/030719/11250005.JPG

1853. Re: Metric PL259?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-19 05:54:57 UTC
From: "Joe Bramblett, KD5NRH" <kd5nrh@yahoo.spam.com>
Message-ID: <Xns954A96B4A62kd5nrhyahoocom@38.144.126.105>
Source record: 23985
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

Children,

```
0 1 2 3 4 5 6 7 8 9 10
| | | | | | | | | | | | | | | | | | | | | |
||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
|||||||||||||||||
```

Take this into the bathroom, and don't come back out to the
group until you've settled things.

1854. Re: High Current Horror Stories

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-19 07:38:21 UTC
From: "Joe Bramblett, KD5NRH" <kd5nrh@yahoo.spam.com>
Message-ID: <Xns954A1AF32C7EEkd5nrhyahoocom@38.144.126.103>
Source record: 23986
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur

```
-----BEGIN PGP SIGNED MESSAGE-----
Hash: SHA1

Allodoxaphobia <bit-bucket@config.com> wrote in
news:slrnchva5s.vju.bit-bucket@shell.config.com:

>> Ever see a Sears ratchet glowing WHITE HOT?
>
> Ya, but... You can take it back and they'll replace it. HI!HI!

They do insist that all tools be cooled well below the point of
emitting visible light before return, though.

-----BEGIN PGP SIGNATURE-----
Version: PGP 8.1 - not licensed for commercial use: www.pgp.com
Comment: Encrypt; it makes people wonder what you're up to.

iQA/AwUBQSRZDqauO3Snl+t6EQLmBQCgpxSU1g1LxJ0E+K+WSebUlIFm4dcAoP/e
Qp+oYIKPPglTzRq6IqIwnQ3z
=uavw
-----END PGP SIGNATURE-----
```

1855. Norcal 38 Special Info needed

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-19 07:51:23 UTC
From: null1969@yahoo.com
Message-ID: <479c2105.0408182351.56627c08@posting.google.com>
Source record: 23987

Hello,
I am studying the Norcal 38 special design so that I can gather the parts and assemble one. I have extensively read the documents in the amqrp site. However several questions remain before I proceed. Surprisingly there is very little additional information on the web or google newsgroup. Can someone please post replies to my questions?

1. The schematic for the 5W mods & a RIT. The amqrp website give mods for the mods but not the original mods itself.
2. I will probably build the rig "ugly" style but a PCB reference would be worthwhile to study.
3. Has anyone tried "pulling" the oscillator to get more freq coverage? I believe the stock design has about 20kHz span.
4. Any other ideas since the 38 special was first released.
5. Use of NE612 instead of NE602. I think these are fully compatible with each other.
6. Design for increase the 12MHz IF filter to use 2 or 3 crystals. The manual says that the original PCB contains the provision but no more details.

Thanks in advance for replies.

Regards,
Jay
KC5TQS

1856. Re: Metric PL259?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-19 09:39:43 UTC
From: Brian Reay <brian.reay@bigfoot.com>
Message-ID: <2ojaquFbefj2U1@uni-berlin.de>
Source record: 23988
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

"Joe Bramblett, KD5NRH" <kd5nrh@yahoo.spam.com> wrote in message
news:Xns954A96B4A62kd5nrhyahoocom@38.144.126.105...
> Children,
>
> 0 1 2 3 4 5 6 7
8 9 10
> | | | | | | | | | | | | | | |
| | | | | | |
>
||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||||||||||||||||||||||||||||
>
> Take this into the bathroom, and don't come back out to the
> group until you've settled things.

Well said Joe, same applies to the "Windows 98 CD" thread. How come
technical threads are never so long?

--
Brian Reay
www.g8osn.org.uk
www.amateurradiotraining.org.uk
FP#898

1857. Re: My Unbelievable story is translation

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-19 11:11:33 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <6m29i0hpoqvbfdaqpkeh7a92mjffjghrh4@4ax.com>
Source record: 23989

On 19 Aug 2004 05:38:14 GMT, "Joe Bramblett, KD5NRH"
<kd5nrh@yahoo.spam.com> wrote:

>"Zoran Dimitrijevic" <nacomp@EUnet.yu> wrote in news:cenlu9$ev7$13
>@news.eunet.yu:
>
>> http://www30.brinkster.com/aferatelekom/Story.zip
>
>This much more must twinge keep than that tale.
>
>http://sokaisha.hp.infoseek.co.jp/030719/11250005.JPG

What for your bunny wear hat?

--

"What is now proved was once only imagin'd." - William Blake, 1793.

1858. ARRL Radio Designer

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-19 19:16:15 UTC
From: Joe LeKostaj <joe@falseaddress2004.net>
Message-ID: <joe-CF8262.14161319082004@news.covad.net>
Source record: 23990

Am looking for some basic RF design software that can run on an older PC laptop (Pentium II 266 MHz). I know ARRL doesn't sell Radio Designer anymore, but I'd be interested in getting a used copy of it or an equivalent that'll run on my older computer. Any suggestions? It'll be used just for hobby-level stuff, nothing very intensive.

Tnx & 73,
Joe K9LY

1859. Re: Measuring transitor impedances

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-19 23:23:27 UTC
From: bviel <sjouk@home.nl>
Message-ID: <cg3colpcv1@news3.tilbu1.nb.home.nl>
Source record: 23991

Yes, I did read the whole thread, how could a restate whitout reading the whole thread.
The "restate" is also the way a do measure S-parameters.
And I did say you need an angle also.
reflection coefficient = Vreflected/Vincident = polar magn. and angle
Whit angle I mean Phase Shift.
If you can measure polar magn. and angle, there is no need to go MUCH deeper.
The fact you did go much deeper is? Use of analog equipment.
The question was, instead of use VNA, use oscilloscoop?
Lissajous figures measurement method is very basic stuff, its stated in my scopes
manuel.
Work with complex numbers and Smith Chart is a hobby of me, so I know too what is a "complex load".
How to construct a direction coupler, stripline, any impedance, frequency, even a
direction coupler for every frequency if you only have to measure phase shift.
To measure the magn. I use the bridge of Wheatstone, with a zero biassed Schottky detector diode DVM and some formules.
To give 40,000 $ for a VNA is one way, do it with "things" around you with the
same results, Hey isn't that homebrew?
I don't think there is anything I can't measure, even noise density ! If it can't be
measured, I can calculate it.

Now the purpose for my reaction was, that you where going to think, hey dummy
HOW did you do it?
Instead of that you did reply, we where MUCH deeper....
That's the way (maybe a little unfair) I did reply, did I miss something?
I learnt that you should not trough your self away, someone else will do it for you !

BTW the scope is limited to 1Ghz, digital, full of wave calculations, anything you name.

Man... did you hurt me MUCH !

Would this be the end of this thread, a would not hurt anyone.
Maybe I should have not reply at all, I choose the wrong "entry".

"Steve Nosko" <suteuve.nosukowicuz@moutouroula.com> schreef in bericht news:cfqug5$9vm$1@newshost.mot.com...

>
> "bviel" <sjouk@home.nl> wrote in message
> news:cfpd3m$ic3$1@news2.tilbu1.nb.home.nl...
> > Use a direction coupler for forward and reverse measurement.
> > Use a 2 Chan. Scope great bandwith not nessesary, it is the amplitude
that
> > is to be measured.
> > reflection coefficient = Vreflected/Vincident = polar magn. and angle
> > Chris Bowick Book page 104, reflection coefficient may be plotted
directly
> > in the Smith Chart, and the corresponding impedance read off the chart.
> > Or did I missed something?
>
> Yup, much of what was said. You simply restated it, to some degree. We
> were MUCH deeper...way past the basics.
>
> The scope has to work reasonably well at the frequency of interest. They
> can die pretty fast abofe their useful frequency.
>
> You also have to measure *phase* between the two signals.
> --
> Steve N, K,9;d, c. i My email has no u's.
>
>
>
> >
> >
> > "Joe Rocci" <joe@roccis.com> schreef in bericht
> > news:T0eSc.4297$Kv2.4186@trndny09...
> > > Steve,
> > > A decent (not the dollar store variety) CATV splitter has directivity
of
> > > about 30 dB from 5Mhz to over 500 MHZ. I think this would do the job.
> > >
> > > Joe
> > > W3JDR
> > >
> > >
> > > Steve Nosko <suteuve.nosukowicuz@moutouroula.com> wrote in message
> > > news:cfaqgqgkf1@newshost.mot.com...
> > > >
> > > > "Paul Burridge" <pb@notthisbit.osiris1.co.uk> wrote in message
> > > > news:8p8hh0p3q5thkr89kfm6hipm6bc0hi33i2@4ax.com...
> > > > > On Tue, 10 Aug 2004 01:53:44 GMT, "Joe Rocci" <joe@roccis.com>
> wrote:
> > > > >
> > > > > >Here's an idea that's just whacky enough that it might work...has
> > > anyone
> > > > > >tried it?
> > > > > >

> > > > > >If you have a dual-trace scope with enough bandwidth, you might
be
> > able
> > > > use
> > > > > >Lissajous patterns. The idea would be to drive the complex load
> > through
> > > a
> > > > > >directional coupler with fairly good directivity. A sample of the
> > > > incident
> > > > > >signal would go into the scope X input and a sample of the
> reflected
> > > > signal
> > > > > >would go into the Y input. With a pure reactance as a calibration
> > load,
> > > > > >adjust the X and Y scope gain for a perfect circle on the
display.
> > > Replace
> > > > > >the test load with a complex load, and the magnitude and
> inclination
> > of
> > > > the
> > > > > >line/oval display can tell you amplitude and phase of the
reflected
> > > signal,
> > > > > >from which any other metric can be calculated.
> > > > >
> > > > > Nice idea, Joe! If it could only be made to work, you'd be a
genius.
> > > > > --
> > > >
> > > >
> > > OK Actually, this looks good as long as you have a directional
> coupler
> > for
> > > > the frequency of interest! Paul didn't say. (SWR Bridge, actual
> > bridge,
> > > > for lower frequencies) You'll also have to allow for the difference
> in
> > > > location of the two samples by adjusting the line lengths to the two
> > scope
> > > > probes intil they are both at the same "distance" from the load.
> > Judging
> > > > phase shift from a circle can't be as good as simply looking at the
> two
> > > > waveforms. The scope horiz gain can be adjusted for some nice
number
> of
> > > > divisions for each half cycle, say 9...
> > > > I've got a 100MHz. dual trace storage scope, but any directional
> > > > couplers around here only will be down to 130 Mhz at best... I do

> also
> > > have
> > > > a good bridge for down to 5 MHz., (also about 1 meter worth of
stretch
> > > > line...so it is possible as long as the power level is within the
> bridge
> > > > capability.
> > > > --
> > > > Steve N, K,9;d, c. i My email has no u's.
> > > >
> > > >
> > > >
> > > >
> > >
> > >
> >
> >
>
>

1860. Re: High Current Horror Stories

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-20 01:47:39 UTC
From: Martin <vk2umjATyahooDOTcomDOTau>
Message-ID: <41255835_1@news.iprimus.com.au>
Source record: 23992
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur

My story may not be extremely spectacular, but I think it has a rather amusing moral...

I had for a number of years not bothered screwing down the top cover of my 13.8VDC 10A power supply, for whatever reason. Of course, every so often the top cover would move and expose the inside working of the supply, but that wasn't really a problem!(?)

Then one day, while doing my electronics trade course, we moved to the subject of AC safety and how not to fry yourself! Very interesting lesson and I scored 100% in the final exam for that subject.

Then I came home, rather pleased, reached down to switch off my power supply, and promptly shorted the 240V AC main switch with my finger! What was that about AC electrical safety again????

Another event, some years later, I was working on a tape deck on my workbench. I had to reach over the tape deck to get a screwdriver from the back of the bench, but of course I forgot it was still pluged in and promptly shorted the AC transformer inout with my forearm...

Luckily for me we had just installed earth leakage breakers and it didn't take long for it to trip... After that, whenever someone asked me "how long do these breakers take to cut out" I would always answer with "oh, about ARRRGG"

Cheers

Martin, VK2UMJ

1861. How does this "cold heat" soldering iron work?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-20 08:11:40 UTC
From: scroob <idontthinkso@yoohoo.com>
Message-ID: <2olq1sFc6880U4@uni-berlin.de>
Source record: 23993

I'm thinking a metallurgic reaction of some kind.

1862. Re: ARRL Radio Designer

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-20 09:02:36 UTC
From: Andrew Tweddle <sarason@alphalink.com.au>
Message-ID: <4125c5c7$1@news.alphalink.com.au>
Source record: 23994

Joe LeKostaj wrote:
> Am looking for some basic RF design software that can run on an older PC
> laptop (Pentium II 266 MHz). I know ARRL doesn't sell Radio Designer
> anymore, but I'd be interested in getting a used copy of it or an
> equivalent that'll run on my older computer. Any suggestions? It'll be
> used just for hobby-level stuff, nothing very intensive.
>
> Tnx & 73,
> Joe K9LY
I think the student version 8.5 of Serenade is basically the updated
version . The product that ARRL designer is made from was one of the
last versions of SuperCompact before the company became Ansoft.

This webpage has plenty of ideas.

http://www.rfengineer.cc/rftools.htm

regards Andrew

1863. Re: How does this "cold heat" soldering iron work?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-20 12:29:55 UTC
From: mikea@mikea.ath.cx
Message-ID: <cg4qs3$me6$6@puck.litech.org>
Source record: 23995

scroob <idontthinkso@yoohoo.com> wrote:
> I'm thinking a metallurgic reaction of some kind.

Much more likely that it puts a fairly hefty current through the stuff between the electrodes on the business end. OK for passive components, wire, and jewelry stuff, but not necessarily so good for semiconductors.

--
Mike Andrews
mikea@mikea.ath.cx
Tired old sysadmin

1864. Re: How does this "cold heat" soldering iron work?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-20 14:11:56 UTC
From: bill <bill2@nospam.com>
Message-ID: <412606A8.DEE5982A@nospam.com>
Source record: 23996

Long time ago, pop mechanics ran an article
about making your own soldering iron by
using the carbon rod from a C cell battery
(carbon zinc cell)

The carbon heats up very fast and also cools fast
so no burns.

Not sure if this is spinoff or some other plastic/carbon tip.

bill

scroob wrote:

> I'm thinking a metallurgic reaction of some kind.

1865. Re: How does this "cold heat" soldering iron work?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-20 14:14:29 UTC
From: bill <bill2@nospam.com>
Message-ID: <41260743.DB1C8BB8@nospam.com>
Source record: 23847

http://seattlepi.nwsource.com/business/152624_coldheat16.html

1866. Re: How does this "cold heat" soldering iron work?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-20 14:26:49 UTC
From: "G.Beat" <now9spamgb@no.comcast.spam.net>
Message-ID: <JSnVc.286412$a24.99570@attbi_s03>
Source record: 23848

"scroob" <idontthinkso@yoohoo.com> wrote in message
news:2olq1sFc6880U4@uni-berlin.de...
> I'm thinking a metallurgic reaction of some kind.

Fry's Electronics, in Chicago was stocking (filling) the shelves with these
ColdHeat units -- 10 days ago.

w9gb

1867. Re: How does this "cold heat" soldering iron work?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-20 14:44:22 UTC
From: "L." <FFSTA17NO@SPAMACCESS995.COM>
Message-ID: <x7oVc.143$Ae.41@newsread1.dllstx09.us.to.verio.net>
Source record: 23849

"G.Beat" <now9spamgb@no.comcast.spam.net> wrote in message
news:JSnVc.286412$a24.99570@attbi_s03...
> "scroob" <idontthinkso@yoohoo.com> wrote in message
> news:2olq1sFc6880U4@uni-berlin.de...
> > I'm thinking a metallurgic reaction of some kind.
>
> Fry's Electronics, in Chicago was stocking (filling) the shelves with
these
> ColdHeat units -- 10 days ago.
>
> w9gb
>
>

Now, if they can sell them all, with little or no returns, they'll be in good shape. Stock is useless on a shelf. Ties up funds. Too bad I don't live there. Would be interesting to see how well they do.

L.

1868. Re: High Current Horror Stories

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-20 15:41:28 UTC
From: snarflemike@yahoo.com
Message-ID: <20619edc.0408200741.8ca9072@posting.google.com>
Source record: 23850
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur

My dad tells a story of his days working as a maintenence engineer in a building where the power was carried along exposed buss bars. Another worker had a screwdriver in his back pocket and backed into a buss, blowing himself across the room and leaving a notable set of scars from the molten screwdriver blade.

1869. Re: How does this "cold heat" soldering iron work?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-20 16:46:59 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <MPG.1b8fcae07c8124e198970e@news-central.giganews.com>
Source record: 23851

In article <41260743.DB1C8BB8@nospam.com>, bill2@nospam.com says...
> http://seattlepi.nwsource.com/business/152624_coldheat16.html
>
>

They are essentially worthless (at $20, I couldn't resist the chance to try one). They are unable to put enough current through an object to heat it to solder-melting temperature, unless the object is very small and delicate (read: a solid-state component that would be easy to damage by using a soldering iron that deliberately passes current through the connection being made). It is tough to solder anything larger than or equal to the size of a 1/8-watt resistor lead with this iron, and you can forget doing antenna work or anything else that requires serious heat delivery.

It might have worked a bit better if they had dropped their series R and required lithium AA cells. As things stand, the miniature butane iron sold by Radio Shack at about the same price is a much better deal.

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

1870. Re: How does this "cold heat" soldering iron work?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-20 17:22:46 UTC
From: eas90168@aol.com
Message-ID: <4b031b96.0408200922.639c7458@posting.google.com>
Source record: 23852

I'm not sure, but I do see an electrical arc when it is in operation.
For that reason, I wouldnt use it on electronic curcuits.

Eric

scroob <idontthinkso@yoohoo.com> wrote in message news:<2olq1sFc6880U4@uni-berlin.de>...
> I'm thinking a metallurgic reaction of some kind.

1871. Re: How does this "cold heat" soldering iron work?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-20 17:46:58 UTC
From: clifto <clifto@clifto.com>
Message-ID: <i1qhv1-pf7.ln1@remote.clifto.com>
Source record: 23853

bill wrote:
> Long time ago, pop mechanics ran an article
> about making your own soldering iron by
> using the carbon rod from a C cell battery
> (carbon zinc cell)

http://www.coldheat.com/

They have a three-minute QVC commercial for it. It's obvious that it's running current through the object to be soldered; they show the little red "power" light going on and off as they touch and un-touch a solder pad on a circuit board.

Like the Radio Shack butane unit, the device is $20 and tips are $10. They have three different tips shown. Takes 4 AA batteries.

"This tool is appropriate for most electrical projects with wires between 18-24 gauge, small jewelry repair, and electronic projects."

"We do not recommend it for soldering of large metallic components that require a lot of heat transfer, such as heavy gauge wire. Also be aware that high temperatures will be created during active soldering; please consult your component's datasheet for any special precautions needed."

"What is the spark I see sometimes during soldering?
"The spark (arc) is caused [sic] electrical current passes from one half of the tip to the other. Although the tool's spark should not damage any electrical or electronic components, we recommend caution when soldering sensitive components. Also, ensure that the tool is not used in flammable or explosive environments, such such as near gas or gasoline fumes."

One thought that occurs to me is that it looks like a DYNAMITE tool for desoldering with a suction device, since it appears that solder doesn't stick to the tip it ships with. Can't speak for the other tips; they look more metallic and are not demonstrated on the site. They recommend wick for desoldering, but those of us not of that religion might have an alternative.

--
"Kerry arrived in-country with a strong anti-Vietnam War bias and a self-serving determination to build a foundation for his political future."
-- Rear Admiral Roy Hoffmann, USN (Ret.), May 4, 2004

1872. Re: ARRL Radio Designer

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-20 18:05:07 UTC
From: dplatt@radagast.org
Message-ID: <10icfajkn1eqs0c@corp.supernews.com>
Source record: 23854

In article <4125c5c7$1@news.alphalink.com.au>,
Andrew Tweddle <sarason@alphalink.com.au> wrote:

>I think the student version 8.5 of Serenade is basically the updated
>version.

Serenade is no longer available.

Ansoft does offer a free feature-limited "student" version of its
successor product "Ansoft Designer". I've heard that this student
version lacks some capabilities which were available in Serenade. I
haven't tried it out myself.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

1873. Re: How does this "cold heat" soldering iron work?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-20 18:42:01 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <cg5gqc$4f7$1@newshost.mot.com>
Source record: 23855

"clifto" <clifto@clifto.com> wrote in message
news:i1qhv1-pf7.ln1@remote.clifto.com...
> bill wrote:
> > ... making your own soldering iron by
> > using the carbon rod from a C cell battery
> > (carbon zinc cell)
> http://www.coldheat.com/
> They have a three-minute QVC commercial for it.

Good info Clif...Bill, whatever,
Boy, you new guys sure don't know what's been around for a long
time...(:-)
OLD idea. LOW voltage, HIGH current.

It is called "resistance soldering". I believe it is most important to
know that the current is only passed through ONE of the pieces being
soldered, not through the joint being soldered. In the QVC video, notice
that he only does one piece of wire and what look like solder blobs on a
board....

In fact, this is how soldering *GUNS* work! The gun "TIP" is a 'wire' &
has a high current from a transformer secondary that is in the gun body.
Long ago I stopped buying soldering gun tips and just use #12 or #14 solid
copper wire. Sometimes in really weird shapes to unsolder IC and the like.
It is interesting to see what the strong magnetic field around the tip does
to molten solder... Reminds me of that recent NASA video about the solder
flux in space...
The (soldering gun) secondary is 1 or 2 turns for fractions of a volt at
MANY amps. I should measure it, but I think it CAN NOT damage a transistor
since it is less than 0.4 volts (I think, far less)
I have a professional resistance soldering unit used for making dental
braces and similar things and it is powerful enough to do PL259s _VERY_
well. Heavy wire to the probe and large clamp and several secondary taps.
Interesting thing is that the manufacturer uses the blue handles from
Weller, so it looks like a Weller soldering iron, but with an extreemly worn
and oxidized tip, since it is not tinned. Looks carbon-like.

More info I found with a quick Google:

Didn't read it all, but an explanation:
http://www.geocities.com/budb3/arts/meth/sldrrst.html

Build your own:
http://www.trainweb.org/bristol-s-gauge/Projects/rsu.html

The web had anything!

http://www.wassco.com/regressolhan.html

http://www.contacteast.com/product/group.asp?parent_id=16
http://www.greenspun.com/bboard/q-and-a-fetch-msg.tcl?msg_id=004VTC
Build your own (model railroad magazine references)

http://index.mrmag.com/tm.exe?opt=S&cmdtext=Resistance+Soldering&output=3&sort=d

http://www.ares-server.com/Ares/Ares.asp?MerchantID=RET01229&Action=Catalog&Type=Departmen
t&ID=81
Beware URL WRAP

It's obvious that it's
> running current through the object to be soldered; they show the little
> red "power" light going on and off as they touch and un-touch a solder
> pad on a circuit board.
>
> Like the Radio Shack butane unit, the device is $20 and tips are $10.
> They have three different tips shown. Takes 4 AA batteries.
>
> "This tool is appropriate for most electrical projects with wires between
> 18-24 gauge, small jewelry repair, and electronic projects."
>
> "We do not recommend it for soldering of large metallic components that
> require a lot of heat transfer, such as heavy gauge wire. Also be aware
> that high temperatures will be created during active soldering; please
> consult your component's datasheet for any special precautions needed."
>
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> wick for desoldering, but those of us not of that religion might have
> an alternative.
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> --
> "Kerry arrived in-country with a strong anti-Vietnam War bias and a
self-serving
> determination to build a foundation for his political future."
> -- Rear Admiral Roy Hoffmann, USN (Ret.), May 4, 2004

1874. Re: Followup "cold heat" soldering iron work?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-20 18:58:15 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <cg5hoq$4ko$1@newshost.mot.com>
Source record: 23856

FOLLOW-UP...

The "Explanation" text I refer to below says that you put current THROUGH the joint you are soldering. This can be done, but be careful. He expains the effects of resistance in the joint.

Remember in ALL soldering, the goal is to heat the _JOINT_ and let it melt the solder. [[but it is _very_ helpful to use a small blob of molten solder to get a good heat transfer to the 'work".

The idea is to get in and get out without heating surrounding stuff any more than necessary (including the solderer tips themselves)

Arcing is caused by INDUCTANCE. As Newton once said, "Inductanace abhores a current change." [[much like Voltare once said: "Capacitance abhores a voltage change.]]

When current flows in an inductance, the inductance will do "whatever it takes" with the voltage across the inductor to keep the current constant -- including generating a *VERY* LARGE voltage in order to create a low resistance arc (so to speak), when we foolishly try to interrupt the circuit. This is how engine spark coils woik)

--
Steve N, K,9;d, c. i My email has no u's.

"Steve Nosko" <suteuve.nosukowicuz@moutouroula.com> wrote in message news:cg5gqc$4f7$1@newshost.mot.com...
>
> "clifto" <clifto@clifto.com> wrote in message
> news:i1qhv1-pf7.ln1@remote.clifto.com...
> > bill wrote:
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> > > using the carbon rod from a C cell battery
> > > (carbon zinc cell)
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> OLD idea. LOW voltage, HIGH current.
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> soldered, not through the joint being soldered. In the QVC video, notice
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>
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> It is interesting to see what the strong magnetic field around the tip
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transistor
> since it is less than 0.4 volts (I think, far less)
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> Interesting thing is that the manufacturer uses the blue handles from
> Weller, so it looks like a Weller soldering iron, but with an extreemly
worn
> and oxidized tip, since it is not tinned. Looks carbon-like.
>
> More info I found with a quick Google:
>
> Didn't read it all, but an explanation:
> http://www.geocities.com/budb3/arts/meth/sldrrst.html
>
> Build your own:
> http://www.trainweb.org/bristol-s-gauge/Projects/rsu.html
>
>
> The web had anything!
>
>
> http://www.wassco.com/regressolhan.html
>
> http://www.contacteast.com/product/group.asp?parent_id=16
> http://www.greenspun.com/bboard/q-and-a-fetch-msg.tcl?msg_id=004VTC
> Build your own (model railroad magazine references)
>
>
http://index.mrmag.com/tm.exe?opt=S&cmdtext=Resistance+Soldering&output=3&sort=d
>
>
http://www.ares-server.com/Ares/Ares.asp?MerchantID=RET01229&Action=Catalog&Type=Departmen
t&ID=81

> Beware URL WRAP
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>
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> >
> > "What is the spark I see sometimes during soldering?
> > "The spark (arc) is caused [sic] electrical current passes from one half
> > of the tip to the other. Although the tool's spark should not damage
> > any electrical or electronic components, we recommend caution when
> > soldering sensitive components. Also, ensure that the tool is not used
> > in flammable or explosive environments, such such as near gas or
> > gasoline fumes."
> >
> > One thought that occurs to me is that it looks like a DYNAMITE tool for
> > desoldering with a suction device, since it appears that solder doesn't
> > stick to the tip it ships with. Can't speak for the other tips; they
> > look more metallic and are not demonstrated on the site. They recommend
> > wick for desoldering, but those of us not of that religion might have
> > an alternative.
> >
> > --
> > "Kerry arrived in-country with a strong anti-Vietnam War bias and a
> self-serving
> > determination to build a foundation for his political future."
> > -- Rear Admiral Roy Hoffmann, USN (Ret.), May 4, 2004
>
>

1875. Re: High Current Horror Stories

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-20 19:23:37 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <cg5j8c$4s9$1@newshost.mot.com>
Source record: 23857
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur

High school.
My buddy Pete has one of those continuous AC electrical outlets on the side of his desk. You know. Two continuous brass strips in a foot long plastic housing with two slots, into which you shove the (older two bladed) plug.

Well, one day he needed some line cord, which he ALSO had hanging on the peg-board on the side of his desk
SO... He reaches around the end...grabs some line cord and proceeds to cut off a piece with scissors...

Blam! ... notched scissors!

Outlet strip had the same kind of brown, two conductor cord.
--
Steve N, K,9;d, c. i My email has no u's.

"Mike Silva" <snarflemike@yahoo.com> wrote in message
news:20619edc.0408200741.8ca9072@posting.google.com...
> My dad tells a story of his days working as a maintenence engineer in
> a building where the power was carried along exposed buss bars.
> Another worker had a screwdriver in his back pocket and backed into a
> buss, blowing himself across the room and leaving a notable set of
> scars from the molten screwdriver blade.

1876. Re: How does this "cold heat" soldering iron work?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-20 21:59:10 UTC
From: clifto <clifto@clifto.com>
Message-ID: <eq8iv1-mk8.ln1@remote.clifto.com>
Source record: 23858

Steve Nosko wrote:
> "clifto" <clifto@clifto.com> wrote...
>> http://www.coldheat.com/
>
> Good info Clif...Bill, whatever,
> Boy, you new guys sure don't know what's been around for a long
> time...(:-)
> OLD idea. LOW voltage, HIGH current.
>
> It is called "resistance soldering".

I knew that. :) Seriously, to me the big celebration here is the material that allows you to make a low-resistance connection to the work every time.

We used to have fun with a low-voltage, high-current power supply that some wag labeled "Zotz I" (but everyone mistook the markings and called it "zotsy"). It was the (fairly) early days of tantalum caps, and we'd hang Zotzi across the power supply rails to find shorts by heat. On occasion we'd launch a smelly and formerly shorted tantalum that way.

--
"Kerry arrived [in Viet Nam] with a strong anti-Vietnam War bias and a self-serving determination to build a foundation for his political future."
-- Rear Admiral Roy Hoffmann, USN (Ret.), May 4, 2004

1877. Re: High Current Horror Stories

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-20 23:17:48 UTC
From: Bill <Bill@birchnet.demon.co.uk>
Message-ID: <W0jAc5TDhnJBFwmZ@birchnet.demon.co.uk>
Source record: 23859
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur

In message <cg5j8c$4s9$1@newshost.mot.com>, Steve Nosko
<suteuve.nosukowicuz@moutouroula.com> writes
>
>SO... He reaches around the end...grabs some line cord and proceeds to cut
>off a piece with scissors...
>
>Blam! ... notched scissors!

On a vaguely similar line my father was rewiring an outside building and
carefully removed all the fuses from the fuse box before cutting out all
the old cabling. He then came across a cable he had forgotten and cut
this too, BANG!! It was the input to the fuse box. One very badly melted
pair of cutters and a rather startled father.
--
Bill

1878. Re: High Current Horror Stories

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-20 23:21:06 UTC
From: mikea@mikea.ath.cx
Message-ID: <cg6111uga2@puck.litech.org>
Source record: 23860
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur

Bill <Bill@birchnet.demon.co.uk> wrote:
> In message <cg5j8c$4s9$1@newshost.mot.com>, Steve Nosko
> <suteuve.nosukowicuz@moutouroula.com> writes
> >
> >SO... He reaches around the end...grabs some line cord and proceeds to cut
> >off a piece with scissors...
> >
> >Blam! ... notched scissors!

> On a vaguely similar line my father was rewiring an outside building and
> carefully removed all the fuses from the fuse box before cutting out all
> the old cabling. He then came across a cable he had forgotten and cut
> this too, BANG!! It was the input to the fuse box. One very badly melted
> pair of cutters and a rather startled father.

I gotta. I just gotta.

About 25 years back, I was a new systems programmer for a government agency which I'll cleverly call WeBuildHighways. Our sister shop, the Department of inHuman Services, was fairly close, and we spent a fair amount of time visiting and swapping hints and kinks.

One day I was there while some remodeling was being done: an old door wsa being blocked and a new one cut. I heard a Skilsaw fire up, saw a blade movingd ownward, and cringed: there was a quad-box about a foot below the blade and in its path.

My counterpar was a bit quicker, and shouted "Turn Off All Your Terminals RIGHT _NOW_!!" -- just before the blue flash and the great dark silence.

This was before PCs, and so we only lost some 3270 terminal sessions to the mainframe. It was ... interesting.

Another time I'll tell about The Guy Who Blew Himself Through The Door.

--
Mike Andrews
mikea@mikea.ath.cx
Tired old sysadmin

1879. Re: Followup "cold heat" soldering iron work?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-20 23:47:06 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10id3br6m2m2b7c@corp.supernews.com>
Source record: 23861

Bill Turner wrote:

> On Fri, 20 Aug 2004 13:58:15 -0500, "Steve Nosko"
> <suteuve.nosukowicuz@moutouroula.com> wrote:
>
>
>>Arcing is caused by INDUCTANCE.
>
>
> ____
>
> The kind of arcing we're talking about is caused by heating at the point
> of contact which is sufficient to vaporize a small amount of the
> conductor. If significant inductance is present, the current and
> therefore the heating can be magnified.
>
> --
> Bill, W6WRT
> QSLs via LoTW

Inductance doesn't magnify current. In fact, it's a fundamental property -- even a definition -- of inductance that it resists any change in current. And to do that, it can elevate the voltage by a whole lot. For example, if you have current flowing through a coil and break the connection, you commonly see a spark or arc (and can get a shock even with a low applied DC voltage). This is caused by the very large voltage the inductor produces in its effort to keep the current flowing through what has become an open circuit.

Roy Lewallen, W7EL

1880. mrf141g/d1028/blf248 amp question..

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-21 00:05:06 UTC
From: zindazenda <zen@lineisp.co.uk>
Message-ID: <1093046705.656498@smtp-1.griffin.com>
Source record: 23862

hi there ..

has anyone built a broadband amp using any of the above (espically d1028 semelab)..and homebrewed the output matching transformer.looking to cover70-148mhz...
have tried using 25r ptfe cable but that dosen't work..(3 turns giving 9:1)

if yes some details please..please note have extreme difficulty in finding semi rgid 25r cable here in uk..

thanks simon

g0zen..

oh semelab d1028 suggests using exe18 19/30 coax..but i cant find any details on spec...also supplier for A1x1 hole siemens core..uk please..(but usa will do..)

1881. Re: High Current Horror Stories

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-21 01:20:01 UTC
From: Ernie <ERNIE@HOME.NET>
Message-ID: <nrxVc.144$il.17@fe39.usenetserver.com>
Source record: 23863
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur

12 years back there was a CB'er that had a double 3-500 Z amp with 3500 volts on the plate that lived next door to me.

One day he noticed he was running about half power instead of full bore so he popped the top of the amp and noticed one of the wires on the tube caps (PLATE) had come unsoldered.....so instead of turning the amp off he melted the solder a bit with his insulated soldering iron and forced the wire back into the molten puddle....It worked!.......Then holding a large roll of bare solder in his hand he added a bit more to the molten solder

It didnt take him long to let go of that roll of solder in his bare hand!!!

His entire hand was burnt white!
"Mike Andrews" <mikea@mikea.ath.cx> wrote in message
news:cg6111uga2@puck.litech.org...
> Bill <Bill@birchnet.demon.co.uk> wrote:
> > In message <cg5j8c$4s9$1@newshost.mot.com>, Steve Nosko
> > <suteuve.nosukowicuz@moutouroula.com> writes
> > >
> > >SO... He reaches around the end...grabs some line cord and proceeds to
cut
> > >off a piece with scissors...
> > >
> > >Blam! ... notched scissors!
>
> > On a vaguely similar line my father was rewiring an outside building and
> > carefully removed all the fuses from the fuse box before cutting out all
> > the old cabling. He then came across a cable he had forgotten and cut
> > this too, BANG!! It was the input to the fuse box. One very badly melted
> > pair of cutters and a rather startled father.
>
> I gotta. I just gotta.
>
> About 25 years back, I was a new systems programmer for a government
> agency which I'll cleverly call WeBuildHighways. Our sister shop, the
> Department of inHuman Services, was fairly close, and we spent a fair
> amount of time visiting and swapping hints and kinks.
>
> One day I was there while some remodeling was being done: an old door
> wsa being blocked and a new one cut. I heard a Skilsaw fire up, saw a
> blade movingd ownward, and cringed: there was a quad-box about a foot
> below the blade and in its path.
>
> My counterpar was a bit quicker, and shouted "Turn Off All Your

> Terminals RIGHT _NOW_!!" -- just before the blue flash and the great
> dark silence.
>
> This was before PCs, and so we only lost some 3270 terminal sessions
> to the mainframe. It was ... interesting.
>
> Another time I'll tell about The Guy Who Blew Himself Through The Door.
>
> --
> Mike Andrews
> mikea@mikea.ath.cx
> Tired old sysadmin

1882. Re: Texas Balloon Launch Team (BLT) to fly ham radio and GPS this saturday 10am

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-21 01:36:24 UTC
From: Craig Davidson <nospam@earthlink.com>
Message-ID: <sGxVc.8248$3O3.3018@newsread2.news.pas.earthlink.net>
Source record: 23865
Cross-posted to: rec.radio.scanner,rec.radio.shortwave,rec.radio.amateur.space,rec.radio.amateur.homebrew,rec.radio.amateur.equipment,rec.radio.amateur.digital.misc

Here are the final frequencies:

Live Main Payload Color Camera ATV = 1255 FM
Crossband FM Repeater Uplink = 147.435 & Downlink = 446.000
Primary APRS GPS Downlink = 440.980 W5ACM-9 100 mW <====== (this one has changed from last year)
Wing Glider GPS Downlink = 445.925 W5ACM-8 250 mW
35-mm Camera with a picture every 160 seconds
Audio Beeper

--

Craig Davidson wrote in message ...
>
>It's time again for the Texas Balloon Launch Team (BLT) to fly their 20th
>mission.
>
>The Primary GPS APRS transmitter is on 440.950 Mhz FM
>
>The Backup GPS system transmits on: 445.925 MHz FM
>
>There is also a Crossband voice Repeater on the balloon which
>transmits on 446.000 MHz FM
>
>In addition there will be a Live television Camera transmitting its signal
>on
>1255 MHz FM
>
>The balloon will take about one hour to rise to 100,000 feet where the
>balloon explodes and the electronics payload parachutes back to earth for
>another hour. You should be able to hear the balloon transmitting from over
>300 miles away.
>
>They will launch from the same airport in Wharton Texas
>(http://www.airnav.com/airport/5R5) on Saturday morning at 10am and will
>use most of the same equipment as BLT 19 last year. If the frequencies or
>launch site change then I will post another message by Saturday morning.
>The airnav web page shown above has a handy distance calculator where you
>can enter the code for your local airport and it will tell you the distance
>from wharton.
>
>The GPS coordinates transmitted from the balloon are used to locate the

>landing site.
>
>The electronics package is also fitted with a Piezoelectric beeper to help
>the recovery
>crew find the payload in "that last 100 feet of tall grass".
>
>See the photos from previous missions at:
> http://www.qsl.net/w5acm/b18_1825.html
> http://www.qsl.net/w5acm/b18_1826.html
> http://www.qsl.net/w5acm/b18_1827.html
> http://www.qsl.net/w5acm/b19.html
>
>For all the non hams out there:
>
>The GPS data is transmitted in APRS format.
>
>To learn more about APRS click here:
>http://www.tapr.org/tapr/html/sigf.html
>http://web.usna.navy.mil/~bruninga/aprs.html
>
>Receivers are available from Ham radio stores such as Amateur Electronic
>Supply http://www.aesham.com/ or Ham Radio Outlet
>http://www.hamradio.com/ Or you could look on Ebay for a 440 MHz FM
>receiver. You can also get a police scanner from Radio Shack to do the
job.
>Make sure it receives the proper frequency.
>
>You also need an antenna. I recommend the arrow antenna to get started:
>
>http://www.arrowantennas.com/146-437.html
>
>You will also need a packet modem to decode the APRS audio tones. The
>Kantronics KPC3 is an example http://www.kantronics.com/kpc3+.htm These
>units plug into the speaker jack of the receiver and also to the RS232
>serial port of your computer.
>
>Or you could try to decode the audio tones with software and your sound
card
>instead of buying the modem above. Check out these web sites for packet
>software:
>
>http://www.qsl.net/soundcardpacket/
>http://packetradio.com/rascalmkv.htm
>http://www.elcom.gr/sv2agw/agwsc.htm
>
>
>

1883. Re: High Current Horror Stories

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-21 02:30:41 UTC
From: Bill <Bill@birchnet.demon.co.uk>
Message-ID: <nt2cKgDWWqJBFwRA@birchnet.demon.co.uk>
Source record: 23864
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur

In message <nrxVc.144$il.17@fe39.usenetserver.com>, Ernie
<ERNIE@HOME.NET> writes
>......Then holding a large roll of bare
>solder in his hand he added a bit more to the molten solder
>
>It didnt take him long to let go of that roll of solder in his bare hand!!!

I trust you entered him for the "Darwin award"?
--
Bill

1884. Need ADI contact information please.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-21 08:15:22 UTC
From: Bob <no@spam.com>
Message-ID: <8u0ei0l7mms6ttbiocem0oc7ehd7eqpnuh@4ax.com>
Source record: 23866

I have an ADI built Radio Shack HTX-204 dual bander, and need to get parts for it. It's the same, well almost exactly the same, as the ADI-600 I believe.

I have done web searches, and with the exception of dealer links, they only come up with ADI-radio.com as the manufacturer link, but that takes me to some generic search page, not ADI.

I need a valid ADI (manufacturer) web address, email address, and/or their mailing address and phone numbers if someone has them please.

Thanks in advance for your help.

73, Bob KB2ZGN

1885. Re: QST 9/04 Xtal Osc Phase Noise ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-21 09:48:04 UTC
From: David J Windisch <davidw@copper.net>
Message-ID: <41271a99_5@newsfeed.slurp.net>
Source record: 23867

Anyone remember the QStreeT and/or Handbook DDS explanation and working
model mess from the late nineties?
73, Dave, N3HE

"Harold E. Johnson" <W4ZCB@mchsi.com> wrote in message
news:L_cUc.26503$TI1.6110@attbi_s52...
>
> "Henry Kolesnik" <kolesnik@sbcglobal.net> wrote in message
> news:o9cUc.1165$U96.14@newssvr23.news.prodigy.com...
> > From Google on k2aop:
www2.arrl.org/qst/feedback/2004/10/Feedback1004.pdf
> >
> > Feedback A couple of errors crept into the K2AOP oscillator schematic in
> > Technical Correspondence [Figure 1, "A Simple, Well-Behaved Crystal
> > Oscillator," Sep 2004, p 67]. R1, shown as 22 M?, should be 2.2 M?. R5,
> > shown as 100 ?, should be 1000 ?. The variable trimmer capacitor (shown
as
> > C4) should be C3 (18 pF). C4 should be a fixed capacitor.
> >
> >
> That draftsman has to know where every skeleton is buried within 100 miles
> of Newington to hold down that job.
>
> W4ZCB
>
>

1886. Re: Texas Balloon Launch Team (BLT) to fly ham radio and GPS this saturday 10am

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-21 10:08:35 UTC
From: Richard <translations@qdnet.pl>
Message-ID: <cg776d$8n9$1@atlantis.news.tpi.pl>
Source record: 23868
Cross-posted to: rec.radio.scanner,rec.radio.shortwave,rec.radio.amateur.space,rec.radio.amateur.homebrew,rec.radio.amateur.equipment,rec.radio.amateur.digital.misc

Hey, that was really neat, I loved seeing the curviture of the earth via
the photos on your website

Richard,
SO5GB
"Craig Davidson" <nospam@earthlink.com> wrote in message
news:sESUc.27239$9Y6.24209@newsread1.news.pas.earthlink.net...
>
> It's time again for the Texas Balloon Launch Team (BLT) to fly their 20th
> mission.
>
> The Primary GPS APRS transmitter is on 440.950 Mhz FM
>
> The Backup GPS system transmits on: 445.925 MHz FM
>
> There is also a Crossband voice Repeater on the balloon which
> transmits on 446.000 MHz FM
>
> In addition there will be a Live television Camera transmitting its signal
> on
> 1255 MHz FM
>
> The balloon will take about one hour to rise to 100,000 feet where the
> balloon explodes and the electronics payload parachutes back to earth for
> another hour. You should be able to hear the balloon transmitting from
over
> 300 miles away.
>
> They will launch from the same airport in Wharton Texas
> (http://www.airnav.com/airport/5R5) on Saturday morning at 10am and
will
> use most of the same equipment as BLT 19 last year. If the frequencies or
> launch site change then I will post another message by Saturday morning.
> The airnav web page shown above has a handy distance calculator where you
> can enter the code for your local airport and it will tell you the
distance
> from wharton.
>
> The GPS coordinates transmitted from the balloon are used to locate the
> landing site.
>

> The electronics package is also fitted with a Piezoelectric beeper to help
> the recovery
> crew find the payload in "that last 100 feet of tall grass".
>
> See the photos from previous missions at:
> http://www.qsl.net/w5acm/b18_1825.html
> http://www.qsl.net/w5acm/b18_1826.html
> http://www.qsl.net/w5acm/b18_1827.html
> http://www.qsl.net/w5acm/b19.html
>
> For all the non hams out there:
>
> The GPS data is transmitted in APRS format.
>
> To learn more about APRS click here:
> http://www.tapr.org/tapr/html/sigf.html
> http://web.usna.navy.mil/~bruninga/aprs.html
>
> Receivers are available from Ham radio stores such as Amateur Electronic
> Supply http://www.aesham.com/ or Ham Radio Outlet
> http://www.hamradio.com/ Or you could look on Ebay for a 440 MHz FM
> receiver. You can also get a police scanner from Radio Shack to do the
job.
> Make sure it receives the proper frequency.
>
> You also need an antenna. I recommend the arrow antenna to get started:
>
> http://www.arrowantennas.com/146-437.html
>
> You will also need a packet modem to decode the APRS audio tones. The
> Kantronics KPC3 is an example http://www.kantronics.com/kpc3+.htm These
> units plug into the speaker jack of the receiver and also to the RS232
> serial port of your computer.
>
> Or you could try to decode the audio tones with software and your sound
card
> instead of buying the modem above. Check out these web sites for packet
> software:
>
> http://www.qsl.net/soundcardpacket/
> http://packetradio.com/rascalmkv.htm
> http://www.elcom.gr/sv2agw/agwsc.htm
>
>
>

1887. Re: High Current Horror Stories

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-21 10:56:07 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <3haei05l8qrfpskvaijnd3t0lpcg2tjh0c@4ax.com>
Source record: 23869
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur

On Fri, 20 Aug 2004 21:20:01 -0400, "Ernie" <ERNIE@HOME.NET> wrote:

>12 years back there was a CB'er that had a double 3-500 Z amp with 3500
>volts on the plate that lived next door to me.

What a delight to live next-door to. :-(
--

"What is now proved was once only imagin'd." - William Blake, 1793.

1888. Re: High Current Horror Stories

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-21 15:11:10 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <UJGZPEUOY2JBFAke@ifwtech.co.uk>
Source record: 23870

Ernie wrote:
>12 years back there was a CB'er that had a double 3-500 Z amp with
>3500 volts on the plate that lived next door to me.
>
>One day he noticed he was running about half power instead of
>full bore so he popped the top of the amp and noticed one of the
>wires on the tube caps (PLATE) had come unsoldered.....so
>instead of turning the amp off he melted the solder a bit with his
>insulated soldering iron and forced the wire back into the molten
>puddle....It worked!.......Then holding a large roll of bare solder in
>his hand he added a bit more to the molten solder
>
>It didnt take him long to let go of that roll of solder in his bare
>hand!!!

Something similar happened to a friend who was doing some soldering on a power amp that was still switched on. He wasn't as stupid as that CBer above, oh no. He had passed his amateur exams, so he knew he was working on a "safe" part of the amp, well away from the 3kV.

Well...

He was using a whole reel of solder, and holding the end between finger and thumb, kinda like you do. But he wasn't paying too much attention to the rest of the reel - it slipped off his other finger, and unwound into the amp. Guess where?

He had a nasty little burn on his thumb, and an even nastier little hole in his shirt-front where his chest had been pressed against the case of the amp. He's very lucky indeed to be alive.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

1889. Re: High Current Horror Stories

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-21 15:26:32 UTC
From: "Gary S." <Idontwantspam@net>
Message-ID: <k9qei0ljmf93ubpda3i5rslga6f5jcdbth@4ax.com>
Source record: 23871

I seem to recall that one of the early founders of amateur radio in the US died from a similar accident.

Details escape me, although I recall reading about it sometime last year.

Happy trails,
Gary (net.yogi.bear)
---
at the 51st percentile of ursine intelligence

Gary D. Schwartz, Needham, MA, USA
Please reply to: garyDOTschwartzATpoboxDOTcom

1890. Re: High Current Horror Stories

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-21 15:44:00 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <barei0plk73d2cu1p4v4v92t4tc5rfasql@4ax.com>
Source record: 23872

On Sat, 21 Aug 2004 16:11:10 +0100, "Ian White, G3SEK"
<G3SEK@ifwtech.co.uk> wrote:

Hi Ian,

Was it you who carried out some tests a while ago trying to simulate
the measurement of S - parameters through Spice? I know you've got a
VNA, but I'm talking here strictly about *simulation* of transistor
reflection coefficients, for the avoidance of doubt. Was that
yourself?
--

"What is now proved was once only imagin'd." - William Blake, 1793.

1891. Re: Texas Balloon Launch Team (BLT) to fly ham radio and GPS this saturday 10am

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-21 16:10:04 UTC
From: "Dick, AA5VU" <aa5vuNOSPAM@arrl.net>
Message-ID: <aa5vuNOSPAM-7E311F.11100421082004@newssvr22-ext.news.prodigy.com>
Source record: 23873
Cross-posted to: rec.radio.scanner,rec.radio.shortwave,rec.radio.amateur.space,rec.radio.amateur.homebrew,rec.radio.amateur.equipment,rec.radio.amateur.digital.misc

In article <sGxVc.8248$3O3.3018@newsread2.news.pas.earthlink.net>,
"Craig Davidson" <nospam@earthlink.com> wrote:

> Crossband FM Repeater Uplink = 147.435 & Downlink = 446.000

Heard and worked from the Capital of Texas de AA5VU

1892. Re: High Current Horror Stories

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-21 17:03:43 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <cXO7ICVvB4JBFAky@ifwtech.co.uk>
Source record: 23874

Paul Burridge wrote:
>On Sat, 21 Aug 2004 16:11:10 +0100, "Ian White, G3SEK"
><G3SEK@ifwtech.co.uk> wrote:
>
>Hi Ian,
>
>Was it you who carried out some tests a while ago trying to simulate
>the measurement of S - parameters through Spice? I know you've got a
>VNA, but I'm talking here strictly about *simulation* of transistor
>reflection coefficients, for the avoidance of doubt. Was that
>yourself?

No.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

1893. FA: RF Power Transistors BLX67/BLY53A

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-21 17:15:47 UTC
From: Richard Sterry <no_spam@all.ever>
Message-ID: <cg8016$q2c$2$8300dec7@news.demon.co.uk>
Source record: 23875

http://cgi.ebay.co.uk/ws/eBayISAPI.dll?ViewItem&item=3835129593

--
Rick

1894. NCL-2000 Amplifier parts

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-21 18:41:05 UTC
From: N9EFJ <the2x4@bellsouth.net>
Message-ID: <pGMVc.2318$0o5.1650@bignews1.bellsouth.net>
Source record: 23876

I'm building a copy of this amp.
Looking for a junk NCL-2000 or parts of
one like small (bias and filament) transformers
and tank components.

Carl

1895. Re: analog to digital converter

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-21 19:13:05 UTC
From: N9EFJ <the2x4@bellsouth.net>
Message-ID: <p8NVc.2417$0o5.790@bignews1.bellsouth.net>
Source record: 23877

I use the A/D system in a PIC microcontroller.
The most simple is the PIC16F684.
It actually has an on chip crystal
oscilator in a 14 pin dip so parts count
is at a minimum.

I use a passive resistive network to
extend the range. Input is thru a
10K pot connecrted to ground thru a 1K resistor.

Input to the PIC is at the junction. Expecting
a 30 volt input I set the pot to 5K and then
multiple the result by 6 in the PIC. You most certainly should
use an appropriate 30 volt Zener to limit the raw input. There are
literally software examples by the thousands for PIC
micros on the web. You should be able to very easily roll your
own software for any application. MicroChip (PIC maker)
even supplies a free suite of assembly programs. Look
for "IPROG" as your programming software. My programmer
for the PIC is so simple you can make it on the
back of a DB25 IDC connection. Everything you need to
know is out there.

Carl - N9EFJ

1896. Re: easy to made cb reciever

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-21 19:41:13 UTC
From: Nobody <Nobody_News@Hotmail.com>
Message-ID: <tzNVc.2135$C7.1158@amsnews05.chello.com>
Source record: 23878

"sipa" <sipa(izbrisi)@hrtv.net> wrote in message
news:cfi4d4il1@ls219.htnet.hr...
>> http://hem.passagen.se/sm0vpo/
>>
>> might have something
>
> sorry, not found :(
>
>
maybe this one will work for you

http://hem.spray.se/lythall/rx/swregenrx.htm

CU
Nobody

1897. Looking for griddip meter circuit

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-21 20:07:17 UTC
From: Nobody <Nobody_News@Hotmail.com>
Message-ID: <VXNVc.2182$C7.1344@amsnews05.chello.com>
Source record: 23879

I'm looking for a homebuild Griddip meter circuit so I can build one myself.
has anyone a link or a doc for making one that i can use.

With kind regards
Nobody

1898. Re: Looking for griddip meter circuit

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-21 20:28:38 UTC
From: N9EFJ <the2x4@bellsouth.net>
Message-ID: <efOVc.2582$0o5.2578@bignews1.bellsouth.net>
Source record: 23880

Just did a Google search using "Grid Dip Meter".
The first result will get you started.....

Carl N9EFJ
"Nobody" <Nobody_News@Hotmail.com> wrote in message
news:VXNVc.2182$C7.1344@amsnews05.chello.com...
> I'm looking for a homebuild Griddip meter circuit so I can build one
myself.
> has anyone a link or a doc for making one that i can use.
>
> With kind regards
> Nobody
>
>
>
>

1899. 20 Meter FOXX3

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-21 22:42:57 UTC
From: "WB3FUP (Mike Hall)" <wb3fup@comcast.net>
Message-ID: <2oq1fmFddla6U1@uni-berlin.de>
Source record: 23881

Sometime ago I purchased the kit to build this fine little rig. I started construction but life soon intervened, and construction got put off until sometime. Sometime has arrived! Unfortunately I have misplaced the construction instructions. Can anyone on list provide a copy, or a path to a copy?

--
73 es cul

wb3fup
a Salty Bear

1900. Re: Hi

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-21 23:11:32 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <kklfi019e00dn1kqac8s515snk790qc9jt@4ax.com>
Source record: 23882

On 21 Aug 2004 17:07:46 -0500, Avega Coomber <Avega50@fashionspan.com>
wrote:

>Hi
>exciting newsgroup! keep the info coming!

You don't get out much, do you?
--

"What is now proved was once only imagin'd." - William Blake, 1793.

1901. Re: 20 Meter FOXX3

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-22 00:56:09 UTC
From: "G.Beat" <now9spamgb@no.comcast.spam.net>
Message-ID: <JaSVc.50922$mD.15668@attbi_s02>
Source record: 23883

"WB3FUP (Mike Hall)" <wb3fup@comcast.net> wrote in message
news:2oq1fmFddla6U1@uni-berlin.de...
> Sometime ago I purchased the kit to build this fine little rig. I started
> construction but life soon intervened, and construction got put off until
> sometime. Sometime has arrived! Unfortunately I have misplaced the
> construction instructions. Can anyone on list provide a copy, or a path
> to
> a copy?
>
> --
> 73 es cul
>
> wb3fup
> a Salty Bear
>
Mike -

The FOXX3 transceiver kit was designed by Derek Alexander and was available
through Kanga (UK).
http://www.kanga.demon.co.uk/foxx3trx.htm

Kanga UK contact information
http://www.kanga.demon.co.uk/contacts.htm

Kanga Products UK
http://www.kanga.demon.co.uk/announce.htm

W4JBM has built this kit and may still have instructions
http://www.geocities.com/w4jbm/shack.html

Construction photos of FOXX3 - 20 meter kit
http://www.qsl.net/ok1rp/index.htm#foxx3

G3CWI FOXX3 kit
http://www.qsl.net/g3cwi/thefoxx3.html

AA3SJ construction on 30 meter version
http://www.qsl.net/aa3sj/Pages/Foxx.html

This is the Kanga (US) web site, the Kanga US product line has changed quite
a bit in the past 2 years.
http://www.bright.net/~kanga/kanga/

****
w9gb

1902. Re: High Current Horror Stories

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-22 02:51:16 UTC
From: Jim Adney <jadney@vwtype3.org>
Message-ID: <putfi0pae9gsvr62hcodmtgauslcb64vbo@4ax.com>
Source record: 23884
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur

On Sun, 15 Aug 2004 12:01:14 +0100 Paul Burridge
<pb@notthisbit.osiris1.co.uk> wrote:

>Anyone got any high-current/low-voltage horror stories they'd care to
>share?

Co-worker of mine wore his nice shiny new anniversary wrist watch
(with metal band) while working around his car battery. Pushed his
hand down into a tight spot and shorted the hot terminal to ground
with the band.

He said there was a flash and suddenly the band was starting to glow.
He jerked his hand out almost instantaneously, and the watch and band
sailed across the garage, hit the wall, and crashed to the concrete
floor.

He wore a bandage around his wrist for a couple of weeks, but all he
has to show for it now is the brand around his wrist that the
watchband left behind.

I have no idea what he told his wife....

-

Jim Adney jadney@vwtype3.org
Madison, WI 53711 USA

1903. DTV disk on ham?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-22 03:48:56 UTC
From: pdrunen@aol.com
Message-ID: <20040821234856.04822.00002072@mb-m05.aol.com>
Source record: 23885

Hi Group,

Picked up a few good Direct TV disks around the local area. The LNA on them says 12.8GHz.

Can anyone point me to a site or give me some general infomation on this things? I would assume that the cable between the receiver and LNA also supply the DC voltage.

Is there any other band I could use the disk for? How about using it for the 2.4GHz or 5.8GHz band where there are video link equipment avaliable.

Tnx de KJ4UO

1904. scanner \ cellular phone question

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-22 06:59:57 UTC
From: petefromga@webtv.net
Message-ID: <22717-4128446D-2@storefull-3311.bay.webtv.net>
Source record: 23886

Any one know where to find a older scanner that picks up cell phones?
Or where to find out how to modify a newer model?
thanks

1905. Re: Looking for griddip meter circuit

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-22 08:56:26 UTC
From: Nobody <Nobody_News@Hotmail.com>
Message-ID: <_cZVc.3272$C7.3106@amsnews05.chello.com>
Source record: 23887

Thanks for your help it looks like one that works

CU
Nobody

"N9EFJ" <the2x4@bellsouth.net> wrote in message
news:efOVc.2582$0o5.2578@bignews1.bellsouth.net...
> Just did a Google search using "Grid Dip Meter".
> The first result will get you started.....
>
> Carl N9EFJ
> "Nobody" <Nobody_News@Hotmail.com> wrote in message
> news:VXNVc.2182$C7.1344@amsnews05.chello.com...
>> I'm looking for a homebuild Griddip meter circuit so I can build one
> myself.
>> has anyone a link or a doc for making one that i can use.
>>
>> With kind regards
>> Nobody
>>
>>
>>
>>
>
>

1906. Re: scanner \ cellular phone question

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-22 09:57:29 UTC
From: darleyput@hotmail.com
Message-ID: <cg9qme$659$1@newsg1.svr.pol.co.uk>
Source record: 23888

try

alt.radio.scanner.uk

there not so strict in the UK

1907. Re: easy to made cb reciever

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-22 10:14:40 UTC
From: darleyput@hotmail.com
Message-ID: <cg9rmm$5j7$1@news7.svr.pol.co.uk>
Source record: 23889

if you go to this site

http://qrp.pops.net/qrp/default.htm

and look at the

http://www.qrp.pops.net/cascoder1.htm

its designed for 7 MHz but you can change that by downloading

http://www.qrp.pops.net/apps/resonator.zip

and putting in the frequency of your choice, the schematic it will give you,
should be enough to change the front end of the 7 MHz RX..
That should get you 1/2 way there..

1908. Re: Looking for griddip meter circuit

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-22 10:57:33 UTC
From: Marc <m_db@telenet.be>
Message-ID: <x__Vc.222023$_X2.10695709@phobos.telenet-ops.be>
Source record: 23890

I've buy on ebay a AN/PRM-10. A very good griddipper for a small amount,
better than homebrew.

regards
Marc
ON4MDB

"Nobody" <Nobody_News@Hotmail.com> schreef in bericht
news:VXNVc.2182$C7.1344@amsnews05.chello.com...
> I'm looking for a homebuild Griddip meter circuit so I can build one
myself.
> has anyone a link or a doc for making one that i can use.
>
> With kind regards
> Nobody
>
>
>
>

1909. Re: Looking for griddip meter circuit

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-22 11:19:31 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <t50hi0d7c3ttimijd6kam12o1gdptarmh7@4ax.com>
Source record: 23891

On Sun, 22 Aug 2004 10:57:33 GMT, "Marc" <m_db@telenet.be> wrote:

>I've buy on ebay a AN/PRM-10. A very good griddipper for a small amount,
>better than homebrew.

GDMs are useless for anything above HF. There are plenty of circuits
around that will cover up to UHF, but they're hopelessly clumsy to use
in practice at such frequencies.
--

"What is now proved was once only imagin'd." - William Blake, 1793.

1910. Re: scanner \ cellular phone question

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-22 11:49:35 UTC
From: Doug Smith W9WI <w9wi@invalid.invalid>
Message-ID: <41288850.1070507@invalid.invalid>
Source record: 23892

petefromga@webtv.net wrote:
> Any one know where to find a older scanner that picks up cell phones?
> Or where to find out how to modify a newer model?
> thanks
>

Most of them (the phones) are digital these days, so you probably won't
hear much...
--
Doug Smith W9WI
Pleasant View (Nashville), TN EM66
http://www.w9wi.com

1911. Peoria Superfest 2004, September 17,18,19, 2004

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-22 11:55:28 UTC
From: WA9VRH Larry <wa9vrh@mtco.com>
Message-ID: <41288910_2@corp.newsgroups.com>
Source record: 23893
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.swap,rec.radio.swap

Hi All,
Peoria Superfest 2004, September 17,18,19, 2004
Exposition Gardens, Peoria IL
Amateur Radio Hamfest and Computer Show
GPS Coordnates: 40 deg 45.9 min N, 89 deg 37.09 Min W
Great flea market and commercial buildings.
Lots of boatanchor equipment and parts
FCC Exams Sunday
For more information: http://www.peoriasuperfest.com/
73 see you there!

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 100,000 Newsgroups - 19 Different Servers! =-----

1912. Re: High Current Horror Stories

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-22 12:26:33 UTC
From: Mark Harriss <anotheremail@this.com>
Message-ID: <412890ed@news.comindico.com.au>
Source record: 23894

ï¿½ï¿½ï¿½ï¿½ï¿½ï¿½ï¿½ï¿½ï¿½I'veï¿½heardï¿½ofï¿½aï¿½telephoneï¿½exchangeï¿½painter
putting a can of paint down on the main exchange 50V
bussbars: caused quite a fire too. Another phone tech
had a fuse that blew once a week, he kept putting a
larger and larger fuse in until the wooden exchange
building burnt down.

Mark H

1913. Re: Looking for griddip meter circuit

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-22 13:08:34 UTC
From: "Harold E. Johnson" <W4ZCB@mchsi.com>
Message-ID: <mV0Wc.21509$9d6.14526@attbi_s54>
Source record: 23895

> GDMs are useless for anything above HF. There are plenty of circuits
> around that will cover up to UHF, but they're hopelessly clumsy to use
> in practice at such frequencies.
> --
Sure am glad I waited until now to find that out. Used them and wavemeters
and slotted lines for 30 years at UHF until I found something better.

W4ZCB

1914. Re: Looking for griddip meter circuit

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-22 13:35:21 UTC
From: Uncle Peter <radioconnectionNO@cox.netSPAM>
Message-ID: <Kg1Wc.20474$yh.6273@fed1read05>
Source record: 23896

"Nobody" <Nobody_News@Hotmail.com> wrote in message
news:VXNVc.2182$C7.1344@amsnews05.chello.com...
> I'm looking for a homebuild Griddip meter circuit so I can build one
myself.
> has anyone a link or a doc for making one that i can use.
>
> With kind regards
> Nobody
>

Just a suggestion, but if you want to save some time on the project
and still do it dirt cheap: check out eBay auctions for grid dippers,
and watch for high quality units (early Millen, etc.) that are missing
the coil sets. They usually go dirt cheap. Since you'd have to
make your own set of coils for a homebrew, might as well
consider making them for a good quality commercial unit. I'm kind
of partial to the Millen.

Pete

1915. Re: scanner \ cellular phone question

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-22 14:37:34 UTC
From: xpyttl <xpyttl_NOSPAM@earthling.net>
Message-ID: <10ihcgmibniol75@corp.supernews.com>
Source record: 23797

"Doug Smith W9WI" <w9wi@invalid.invalid> wrote in message
news:41288850.1070507@invalid.invalid...

> Most of them (the phones) are digital these days, so you probably won't
> hear much...

Not only digital, but encrypted, so the receiver is the easy part.

..

1916. Re: Neato! Cheap VLF converter!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-22 15:30:37 UTC
From: Dennis <Dennis_The_Menace@no_spam.net>
Message-ID: <10ihf0vicmsih5d@corp.supernews.com>
Source record: 23798

In article <4121093F.112B1784@.deletethis.sympatico.ca>,
mylastname@.deletethis.sympatico.ca says...
>
>
>
>
>Dennis wrote:
>>
>> In article <411F6FD9.10FB98BF@.deletethis.sympatico.ca>,
>> mylastname@.deletethis.sympatico.ca says...
>> >
>> >
>> >
>> >
>> >Gregg wrote:
>> >>
>> >> Behold, Dave Holford signalled from keyed 4-1000A filament:
>> >>
>> >> > What's odd about a 134' diople? seems pretty standard for 160M Ham work
>> >> > and with open wire feeders should be very versatile.
>> >> >
>> >> > Dave
>> >>
>> >> I read that as 1,134' dipole. Fine for LowFER work :-)
>> >>
>> >> --
>> >> Gregg t3h g33k
>> >> "Ratings are for transistors....tubes have guidelines"
>> >> http://geek.scorpiorising.ca
>> >
>> >
>> >"I ordered the 14 mhz version and on a 134' dipole I'm hearing
>> >WWVB (60kc) LOUD!"
>> >
>> >EH?
>> >
>> >Dave
>>
>> I misunderstood the original post. But how is it you hear WWVB at 60Kz?
>> Are you hearing an analog?
>>
>> dennis
>>
>> --

>This is really wandering - I presume the OP is an Old Fart, like me, and
>once in a while slips back into Kc (kc) instead of kHz. But I notice he
>also used Hz in the same post so maybe it was just a "seniors moment".

I know it's very trendy to use the term "senior moment", but no it
was a typo, nothing more. Mistakes aren't necessarily the result of
a dementia, so get real.

Dennis

>
>I can hear WWVB on 60kHz on my modern radios, but my old Eddystones and
>Plessey get it on 60kc.
>
>Dave

--

1917. Re: scanner \ cellular phone question

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-22 15:53:19 UTC
From: "Dr. Anton T. Squeegee" <SpammersArePondScum@dev.null>
Message-ID: <MPG.1b92614a1e2d44df98979f@192.168.42.131>
Source record: 23799

In article <22717-4128446D-2@storefull-3311.bay.webtv.net>,
petefromga@webtv.net says...

> Any one know where to find a older scanner that picks up cell phones?
> Or where to find out how to modify a newer model?
> thanks

Gad... Why bother? The analog channels that a scanner can deal
with don't have a lot of traffic on them, and there have got to be far
more interesting listening experiences Out There.

If you're bound and determined to bore yourself to death, the
Realistic PRO-2004 is easily modified to cover the analog cell channels.
You can probably find one on EvilBay with minimal effort.

Happy hunting.

--
Dr. Anton T. Squeegee, Director, Dutch Surrealist Plumbing Institute.
(Known to some as Bruce Lane, ARS KC7GR,
kyrrin (a/t) bluefeathertech[d=o=t]calm -- www.bluefeathertech.com
"If Salvador Dali had owned a computer, would it have been equipped
with surreal ports?"

1918. Re: Hi

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-22 16:00:43 UTC
From: Dave <Devarim@hotmail.com>
Message-ID: <86ac55a3ada8cf06ab554d8d9839d2ef@news.meganetnews.com>
Source record: 23801

> >Hi
> >exciting newsgroup! keep the info coming!
>
> You don't get out much, do you?
> --
>
> "What is now proved was once only imagin'd." - William Blake, 1793.

It's just another spam bot - they're hoping folks will reply and supply an email address. There are zillions of variations of this new post appearing in ALL the groups right now

Dave

1919. Re: ARRL Radio Designer

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-22 16:25:00 UTC
From: Joe LeKostaj <joe@falseaddress2004.net>
Message-ID: <joe-301DCC.11250022082004@news.covad.net>
Source record: 23800

In article <10icfajkn1eqs0c@corp.supernews.com>,
dplatt@radagast.org (Dave Platt) wrote:

> In article <4125c5c7$1@news.alphalink.com.au>,
> Andrew Tweddle <sarason@alphalink.com.au> wrote:
>
> >I think the student version 8.5 of Serenade is basically the updated
> >version.
>
> Serenade is no longer available.
>
> Ansoft does offer a free feature-limited "student" version of its
> successor product "Ansoft Designer". I've heard that this student
> version lacks some capabilities which were available in Serenade. I
> haven't tried it out myself.

Andrew, Dave:

Thanks for the tips and links. Unfortunately even the Ansoft Designer
student version's system requirements exceed my laptop's capability.

So, I'd still be happy to buy a used copy of ARRL Radio Designer if
anybody's got one.

--
73,
Joe K9LY

1920. Re: Follow up.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-22 17:15:14 UTC
From: Terry <tsanford@nf.sympatico.ca>
Message-ID: <yu4Wc.4734$DG.92750@news20.bellglobal.com>
Source record: 23803

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:cg0n94sjf1@titan.btinternet.com...

> But in my case I would prefer the more lax and broader definition of
Quality
> : The ability to serve the intended purpose.

Well done Reg. I agree that definition fits in nicely with my (adopted)
expression which is "Fitness for use".
Terry.
PS. As an ex-Brit one of my most interesting and ironic experiences (around
1959) was trying to explain to a USAF Tech. Sgt. neighbour, of Mexican
background, the significance of the Boston Tea Party!
Sort of along the lines of, "Well actually old boy we lost that one; the US
Colonies went their own way to become the USA! Got that Carlos?"
IIRC his name was Carlos Valencia and he was married to a girl from around
New England. He fixed aircraft and I fixed his TV/Radio etc. Nice chap.

1921. Re: High Current Horror Stories

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-22 17:19:11 UTC
From: Allodoxaphobia <bit-bucket@config.com>
Message-ID: <slrncihlcf.27ee.bit-bucket@shell.config.com>
Source record: 23802

On Sun, 22 Aug 2004 12:26:33 GMT, Mark Harriss hath writ:
>
> Another phone tech had a fuse that blew once a week,
> he kept putting a larger and larger fuse in
:
:
> until the wooden exchange building burnt down.

Problem solved! HI!HI!

73
Jonesy
--
| Marvin L Jones | jonz | W3DHJ | linux
| Gunnison, Colorado | @ | Jonesy | OS/2 __
| 7,703' -- 2,345m | config.com | DM68mn SK

1922. need help finding info on TE systems 1410g

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-22 17:36:07 UTC
From: bubba <never@given.con>
Message-ID: <Xns954D8A904FCE9sorryaboutyourluck@140.99.99.130>
Source record: 23804
Cross-posted to: rec.radio.amateur.homebrew,rec.amateur.equitment

can not find my owners manual. can anyone scan their schematic and either post or e-mail me a copy.(or a link to one on line)

thanks very much!!

de kf4fco

1410g@kf4fco.com

1923. Re: ARRL Radio Designer

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-22 17:53:54 UTC
From: Jim Pennell <Nospam@killspam.com>
Message-ID: <S45Wc.30440$9Y6.19104@newsread1.news.pas.earthlink.net>
Source record: 23805

Depending on what you want to do, you might try RFSIMM99 which is a fairly powerful S parameter simulator program.

It is free and if you do a search for that name you ought to get a lot of sites to download it from.

==========

When I set the passive components to use real world models, I can enter the self resonant frequencies and so on from the catalog for the particular component I want to use.

Then, running Random Simulation mode, I can find if my design has critical components. I like that !!!

The ability to include real world parasitics is a nice part of the program, and I use it to keep my designs as tolerant of the actual components as possible.

Jim Pennell
N6BIU

1924. Re: High Current Horror Stories

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-22 18:18:14 UTC
From: Terry <tsanford@nf.sympatico.ca>
Message-ID: <Dp5Wc.5729$DG.108733@news20.bellglobal.com>
Source record: 23806

"Paul Burridge" <pb@notthisbit.osiris1.co.uk> wrote in message
news:pgguh0dee6ars3kmv3o13i7ubcmf3efqbo@4ax.com...
> Hi all,
>
> Anyone got any high-current/low-voltage horror stories they'd care to
> share? You know; where your messin' about with a car battery or
> something like that and forget to take your watch off or whatever.

Paul; I guess mine concerns 'zero amps'. Particularly, a motor generator unit comprising a 48 volt 200 amp DC generator driven by a shaft coupled 3 phase 230 volt motor, which we moved a few miles. After supervising the move, at night, I left the in charge technician and the crew to finish off and went home to bed. Around 01.30h, I was roused by a phone call, "No output". This unit HAD to be working by 09.30h at latest, next morning! During the move the DC generator must have lost its 'residual magnetism' and when restarted was putting out +9 volts instead of -48 volts and consistently tripping the output circuit breaker when they tried to connect it to the working equipment and batteries!
Although I had never encountered it before I had sufficient technical background to surmise what had happened and after blowing a few fuses and burning off a temporary lead in my hand was able to get sufficient negative 48 volt voltage onto the field winding of the unit. It recovered and was there until all the equipment in that building was retired some 15-20 years later.
Phew!
PS. 200 amps @ 48 volts is some 10 kilowatts, the output of one motor generator set and there were 3 of them.

1925. Parts for Sale

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-22 22:24:59 UTC
From: Brian - KB9BVN <kb9bvn@arrl.net>
Message-ID: <%29Wc.8334$2L3.578@newsread3.news.atl.earthlink.net>
Source record: 23807

I have some surplus parts I am offering in a bundle form.

50pcs PN2222A - NPN Transistor TO92 package
50pcs 2N3906 - PNP Transistor TO92 package
100pcs 1N4148 - High Conductance Fast Diode

$10.00 USD includes shipping in the USA via US Postal

I can do foreign orders, but write to me for additional shipping charges.

73 de KB9BVN

--
==========
Agnus dei, qui tollis peccata mundi, dona nobis Pacem.
==========
KB9BVN/QRP QRP-L 1540 QRP-ARCI 10223
39.558 N 86.095 W Johnson Co., Indiana
GRID: EM69WN - Elecraft K1 - Attic Dipole - 5w
Member of the ARRL - SOC #400
FISTS 5695 CC 764 FPQRP #-57
==========

1926. 5/8 square fiberglass tubing?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-23 00:40:35 UTC
From: Dustin <fordman@btc-bci.com>
Message-ID: <f2bWc.420$Vy2.45861@news.uswest.net>
Source record: 23808

Hello, I am looking for an online source for 5/8 fiberglass or solid plastic tubing? if you can help me It would be very much appreciated.

Dustin Kellogg

1927. Re: scanner \ cellular phone question

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-23 02:13:54 UTC
From: ogrowup@webtv.net
Message-ID: <2379-412952E2-23@storefull-3118.bay.webtv.net>
Source record: 23810

Cellphone calls are sooo boring..,

Baby monitors, OTOH, can make listening FUN again... :)

"An armed society is a polite society"

Robert A. Heinlein

1928. Re: 5/8 square fiberglass tubing?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-23 02:22:10 UTC
From: Dale Parfitt <par@parelectronics.com>
Message-ID: <mxcWc.8719$dB6.7776@nwrddc03.gnilink.net>
Source record: 23809

"Dustin" <fordman@btc-bci.com> wrote in message
news:f2bWc.420$Vy2.45861@news.uswest.net...
> Hello, I am looking for an online source for 5/8 fiberglass or solid
plastic
> tubing? if you can help me It would be very much appreciated.
>
> Dustin Kellogg
>
> Hi Dustin,

If it is solid rod, I have a few hundred feet of Extren 5/8" SQ rod- not
tube though.

Dale W4OP

1929. Re: NCL-2000 Amplifier parts

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-23 03:47:29 UTC
From: hexter@blazenet.net
Message-ID: <10iiq6hln1ajh67@corp.supernews.com>
Source record: 23811

In article <pGMVc.2318$0o5.1650@bignews1.bellsouth.net>, the2x4@bellsouth.net says...
>
>I'm building a copy of this amp.
>Looking for a junk NCL-2000 or parts of
>one like small (bias and filament) transformers
>and tank components.
>
>Carl

There was a guy who comes to the spring hamfest in Timonium Maryland who has these amplifier parts new, and by the boxfulls. I have bought inductors like plate chokes, and loading caps from him. Anyone got a name for this guy? I don't have his card, but he sure had lots of national amp parts!!!!

1930. Re: 5/8 square fiberglass tubing?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-23 05:11:09 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10iiv35qmtsbs42@corp.supernews.com>
Source record: 23812

Dustin wrote:

> Hello, I am looking for an online source for 5/8 fiberglass or solid plastic
> tubing? if you can help me It would be very much appreciated.
>
> Dustin Kellogg
>
>
If what Dale has doesn't float you boat, try Small Parts
(http://www.smallparts.com/) or McMaster Carr (http://www.mcmaster.com/).

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

1931. Farhan's Final

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-23 07:09:55 UTC
From: meara.london@virgin.net
Message-ID: <22f6e3ee.0408222309.f99f51c@posting.google.com>
Source record: 23813

I've been looking at Farhan's very FB SSB Transceiver
http://farhan.net.co.nr/xcvr1.html

I'm trying to understand the biasing on his IRF510 final, and the RF output he's getting.

He says he measures 20-24 volts peak RF across a 50 ohm load at the output. That's about 8 watts peak output.

He's using 12 volt supply, and recommends setting the idle current through the MOSFET at 80 ma. Can that be right? According to my reading of Solid State Design for the Radio Amateur (SSDRA)(page 23) with a 12 volt supply we can expect peak signal voltage at the Drain of around 12 volts (with an RF choke in Vcc line). Peak current could be max 80 ma.(maintaining Class A). Under these biasing conditions, assuming Class A operation, max output power of .96 watts would be provided by a load of 150 ohms.

I'm very new to this kind of analysis, and strongly suspect that I'm misreading either SSDRA or Farhan's excellent article.

Can someone please let me know where this apparent discrepency is coming from.

Thanks and 73

Bill N2CQR M0HBR CU2JL
http://planeta.clix.pt/n2cqr

1932. Re: High Current Horror Stories

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-23 12:28:07 UTC
From: Mark Harriss <anotheremail@this.com>
Message-ID: <4129e2d5@news.comindico.com.au>
Source record: 23814

I heard of a newly installed phone exchange generator that kept stalling when they cut it on to the load: they pulled it all apart and checked every part of the alternator and diesel motor with no success.

Then one day they were trying again and these linesmen rushed in from the pub next door shouting and screaming: The grid in the area had been shut down for line repairs so the immediate city block had no electricity. They were knocking back a few coldies when they heard the roar of the generator and saw the lights in the pub flickering.

It seems the techs had wired it in without relays to isolate the line input cables and were trying to power an entire city block: no wonder it was stalling. They were lucky they didn't fry a linesman too.

1933. Re: High Current Horror Stories

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-23 17:45:15 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <L2qWc.40511$jZ5.10773@clgrps13>
Source record: 23815

AIEEEEE! :-o

--
Gregg t3h g33k
"Ratings are for transistors....tubes have guidelines"
http://geek.scorpiorising.ca

1934. Re: High Current Horror Stories

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-23 20:47:36 UTC
From: bg998@FreeNet.Carleton.CA
Message-ID: <cgdl58$2u8$1@freenet9.carleton.ca>
Source record: 23816

Mark Harriss (anotheremail@this.com) writes:
> It seems the techs had wired it in without
> relays to isolate the line input cables and were
> trying to power an entire city block: no wonder it
> was stalling. They were lucky they didn't fry a
> linesman too.

There is a lot to be said for nipping in to a pub occasionally. Maybe one could find a lot of safe linemen there.

... Martin

1935. Re: Neato! Cheap VLF converter!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-23 22:51:21 UTC
From: scroob <idontthinkso@yoohoo.com>
Message-ID: <2ovan8Ff44s5U1@uni-berlin.de>
Source record: 23817

"Ken Bessler" <kg0wx@NOSPAMyahoo.com> wrote in news:2nqc9dF3k1vnU1@uni-berlin.de:

> I was going to buy a Palomar VLF converter for my FT-857D
> but stumbled on this website:
>
> http://home.att.net/~jacksonharbor/lfconv.htm
>
> For $12 shipped I got a kit which took an hour to assemble, taking
> my time & trying to do a good cosmetic job on the breathmints tin
> that holds the project.

This kit is sold out as of 8/19.

From the site:

" LF Converter kit - sold out (8/19/2004)

Please email: jacksonharbor @ att.net
if you would like this kit revived."

I hope he gets enough emails to reinstate it.

1936. Re: Looking for griddip meter circuit

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-24 00:02:01 UTC
From: Ken Scharf <wa2mzeNOTTHIS@bellsouth.net>
Message-ID: <cCvWc.19263$%n4.15889@bignews6.bellsouth.net>
Source record: 23818

Uncle Peter wrote:
> "Nobody" <Nobody_News@Hotmail.com> wrote in message
> news:VXNVc.2182$C7.1344@amsnews05.chello.com...
>
>>I'm looking for a homebuild Griddip meter circuit so I can build one
>
> myself.
>
>>has anyone a link or a doc for making one that i can use.
>>
>>With kind regards
>>Nobody
>>
>
>
> Just a suggestion, but if you want to save some time on the project
> and still do it dirt cheap: check out eBay auctions for grid dippers,
> and watch for high quality units (early Millen, etc.) that are missing
> the coil sets. They usually go dirt cheap. Since you'd have to
> make your own set of coils for a homebrew, might as well
> consider making them for a good quality commercial unit. I'm kind
> of partial to the Millen.
>
> Pete
>
>
Late model Heathkit GDO (comes in nice plastic case) I forget the model
number is very nice. Usually goes for $50-$100 on ebay (more
if un-assembled!).

1937. Surplus 19" equipment rack available in/near Toledo, OH?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-24 02:47:01 UTC
From: Mike Metzger <noreply@noreply.com>
Message-ID: <F_xWc.4305$ZC7.3775@newssvr19.news.prodigy.com>
Source record: 23819

Hey fellow hams. Just found this newsgroup, been inactive for about 22 years but find that it's a bug bite that won't go away, especially now with the kids getting old enough to appreciate their dad's weird habits huddled over a workbench. Homebrew is what ham radio is all about - built my first transmitter on a piece of wood using finishing nails as tie points. (Anybody remember the Electronics Illustrated cover article describing same, circa 1970?)

Anyway, back to my subject, I'm looking for a surplus 19" equipment rack. The net has tons available but, obviously, no point in spending $100 to ship something worth no more than that.

I'd appreciate any guidance on this.

73
Mike
WB8TNF

1938. Colorado

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-24 02:50:30 UTC
From: Popcorn Lover <popcorn@N0T-SPAM.COM>
Message-ID: <Xns954ED4183EB4DpopcornN0TSPAMCOM@206.124.0.13>
Source record: 23820

http://groups.yahoo.com/group/CO-Amateur-Radio/

--
- Popcorn Lover
If you love popcorn too, there are no popcorn groups on usenet but
there IS one in Yahoo Groups:
http://groups.yahoo.com/group/Popcorn_Lovers
The internet's first-ever-in-the-world popcorn group!
Share the word on making great popcorn - come join us!

1939. Re: Surplus 19" equipment rack available in/near Toledo, OH?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-24 05:23:05 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <ZgAWc.49339$X12.41007@edtnps84>
Source record: 23821

Behold, Mike Metzger signalled from keyed 4-1000A filament:

> Hey fellow hams. Just found this newsgroup, been inactive for about 22
> years but find that it's a bug bite that won't go away, especially now
> with the kids getting old enough to appreciate their dad's weird habits
> huddled over a workbench. Homebrew is what ham radio is all about -
> built my first transmitter on a piece of wood using finishing nails as
> tie points. (Anybody remember the Electronics Illustrated cover article
> describing same, circa 1970?)

Amen!

> Anyway, back to my subject, I'm looking for a surplus 19" equipment
> rack. The net has tons available but, obviously, no point in spending
> $100 to ship something worth no more than that.
>
> I'd appreciate any guidance on this.
>
>
Go to http://www.rpelectronics.com/ and enter "Rack Chassis" into the
search field.

--
Gregg t3h g33k
"Ratings are for transistors....tubes have guidelines"
http://geek.scorpiorising.ca

1940. Trimmer capacitor queries

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-24 08:12:16 UTC
From: Richard Sterry <no_spam@all.ever>
Message-ID: <cget96$8su$1$830fa7a5@news.demon.co.uk>
Source record: 23822

Hello all.

I have a few small air-spaced variable 'trimmer' capacitors, obtained some years ago for a project (one of many) which never got off the ground. They are in excellent condition, apart from the inevitable silver tarnish. I thought I might eBay them, but first there are some things I need to find out.

It may seem a daft question, but are the plastic dust jackets merely to protect them until they are installed on a PCB, or are they intended to remain on afterwards? The access hole for the trimmer screw seems to suggest the latter, whilst the fact that the two halves are held together with adhesive tape seems to suggest the former.

You can see a photo here - http://tinyurl.com/6qr7m .

My next task is to identify the value of the two types that I have, one with 5 movable vanes and one with 7. They are identified on the adhesive tape as TL 10 followed by 24/3 and 24/4 respectively, which doesn't tell me a fat lot. The problem with Googling is you can have simply too much information, and this is the case here, so I need to narrow down my search in order to make any progress. Does anyone have any idea where I should be looking?

Failing that, I'll have to blow the dust off the old GDO (it really does have a grid and not a gate!), fish out some VHF coils and some fixed capacitors, and do it the hard way!

--
Rick G4BLT

1941. Re: Trimmer capacitor queries

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-24 10:59:48 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <8n7mi0phe3sels67tsok73cbq993t4cj5v@4ax.com>
Source record: 23823

On Tue, 24 Aug 2004 09:12:16 +0100, "Richard Sterry"
<no_spam@all.ever> wrote:

>It may seem a daft question, but are the plastic dust jackets merely to
>protect them until they are installed on a PCB, or are they intended to
>remain on afterwards? The access hole for the trimmer screw seems to suggest
>the latter, whilst the fact that the two halves are held together with
>adhesive tape seems to suggest the former.

I'd leave the covers on if I were you.

>You can see a photo here - http://tinyurl.com/6qr7m .
>
>My next task is to identify the value of the two types that I have, one with
>5 movable vanes and one with 7. They are identified on the adhesive tape as
>TL 10 followed by 24/3 and 24/4 respectively, which doesn't tell me a fat
>lot. The problem with Googling is you can have simply too much information,
>and this is the case here, so I need to narrow down my search in order to
>make any progress. Does anyone have any idea where I should be looking?

You don't need to establish the value to sell 'em, although it may
help. But the kind of people who will go for this item are probably
not that bothered. They could easily be 24pF., but it's hard to tell
without any scale to the picture.

>Failing that, I'll have to blow the dust off the old GDO (it really does
>have a grid and not a gate!), fish out some VHF coils and some fixed
>capacitors, and do it the hard way!

Fixed inductors, I think you mean...

--

"What is now proved was once only imagin'd." - William Blake, 1793.

1942. Re: Trimmer capacitor queries

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-24 11:38:40 UTC
From: Richard Sterry <no_spam@all.ever>
Message-ID: <cgf9d2$1rp$1$8300dec7@news.demon.co.uk>
Source record: 23824

Paul Burridge wrote:
> On Tue, 24 Aug 2004 09:12:16 +0100, "Richard Sterry"
> <no_spam@all.ever> wrote:
>
>> It may seem a daft question, but are the plastic dust jackets merely to
>> protect them until they are installed on a PCB, or are they intended to
>> remain on afterwards? The access hole for the trimmer screw seems to
>> suggest the latter, whilst the fact that the two halves are held
>> together with adhesive tape seems to suggest the former.
>
> I'd leave the covers on if I were you.

I have since learned that these are for protection from solder splashes etc.
during assembly, and are removed afterwards.

>> You can see a photo here - http://tinyurl.com/6qr7m .
>>
>> My next task is to identify the value of the two types that I have, one
>> with 5 movable vanes and one with 7. They are identified on the adhesive
>> tape as TL 10 followed by 24/3 and 24/4 respectively, which doesn't tell
>> me a fat lot. The problem with Googling is you can have simply too much
>> information, and this is the case here, so I need to narrow down my
>> search in order to make any progress. Does anyone have any idea where I
>> should be looking?
>
> You don't need to establish the value to sell 'em, although it may
> help. But the kind of people who will go for this item are probably
> not that bothered. They could easily be 24pF., but it's hard to tell
> without any scale to the picture.

I like to provide as much info as possible. There are two different sizes,
one with 5 movable vanes and one with 7, and as the size and spacing of the
vanes is the same I would expect their capacitances to be different - unless
I'm missing something, which is perfectly possible!

>
>> Failing that, I'll have to blow the dust off the old GDO (it really does
>> have a grid and not a gate!), fish out some VHF coils and some fixed
>> capacitors, and do it the hard way!
>
> Fixed inductors, I think you mean...

The fixed capacitors are for calibration purposes, the values of the
inductors being unknown (just airpspaced coils). BTW, the GDO is a Heathkit
GD-1U - heavy, mains powered, but works a treat!

Rick

1943. Vertical Antennae matching

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-24 17:46:33 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2p1dcjFfvldbU1@uni-berlin.de>
Source record: 23825

It seems to me that if I have a vertical antenna with the ATU at the base of it with coax back to the shack, that all I need is a series inductor to tune it for frequencies for which it is shorter than 1/4 wave and a series capacitor for frequencies for which it is longer than 1/4 wave.

What do I do, however, for those frequencies for which it is close to a half wave? PI network? Or L network?

1944. Re: Vertical Antennae matching

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-24 19:57:32 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cgg6jcpiq1@sparta.btinternet.com>
Source record: 23826

> What do I do, however, for those frequencies for which it is close
> to a half wave? PI network? Or L network?
>
==========

You very slightly de-tune (decrease) the antenna length, not enough to have any effect on its radiating properties, such that a simple parallel tuned matching circuit will cope.

You can connect a coax feedline line either in series with the coil, an L-network. or tap the coax a few turns up the coil. A very modest ground connection adjacent to the bottom end of the coil witll suffice.

The same circuit will cater efficiently for quite a wide range of antenna heights.

I hope you are satisfied with the above description.

Reg, G4FGQ

1945. Replacement Transistor

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-24 20:02:29 UTC
From: TIFort <beerbarrelNOSPAM@cox.net>
Message-ID: <rf7ni05eq23b28vg3lu1v2mgl3dbch7kqa@4ax.com>
Source record: 23827

Does anyone have an idea what a suitable replacement would be for a MPF102 transistor? The MPF102 comes in a TO92 case. I would like to find a transistor that would sub with this but be in a surface mount package. I've looked at quite a few places around the internet but can't get one to cross exactly. If it's not a exact match, I guess I could go with one with a little more gain.

Thanks,
Tracy

1946. RF Xistors Available

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-24 20:12:10 UTC
From: Al <no.spam@wanted.com>
Message-ID: <no.spam-3EFE12.16111024082004@news.verizon.net>
Source record: 23828

I have a quantity of PT6690 RF transistors. I believe that they are rated 5 watts at 400MHz.

Are they of any use?

Thanks in advance.

Al

1947. Re: High Current Horror Stories

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-24 21:44:09 UTC
From: James Horn <jimhorn@svn.net>
Message-ID: <10indl911s1iv25@corp.supernews.com>
Source record: 23829

While not low voltage, I remember reading in the '60s in Scientific American an article which mentioned how many milliamps of current was enough to be felt / dangerous / deadly, etc. It mentioned that substantially larger currents could sometimes even be safer as they could cause involuntary muscle contractions which would interrupt the current flow.

The example given was of a worker at a high-rise construction site in New York who was changing out of his work clothes at the end of his shift in a temporary shack that also housed the site electrical power connections. While doffing his trousers he accidentally backed into a high voltage panel. An estimated 60 amperes passed from one buttock to the other through muscles that immediately straightened, propelling him through the shack and its door and into two lanes of road traffic which immediately stopped.

Because the current didn't pass through any vital organs, he only sustained surface burns and various bruises and scrapes though the electrical panel manufacturer's logo is now mirror-image tattooed to his behind.

I've *gotta* find the source of all this...

Jim Horn, WB9SYN/6

1948. Re: RF Xistors Available

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-24 22:36:51 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <sngni0tq8k9ui67rr8ct5dji90ihb5j4ot@4ax.com>
Source record: 23830

On Tue, 24 Aug 2004 20:12:10 GMT, Al <no.spam@wanted.com> wrote:

>I have a quantity of PT6690 RF transistors. I believe that they are
>rated 5 watts at 400MHz.
>
>Are they of any use?

Yes.
--

"What is now proved was once only imagin'd." - William Blake, 1793.

1949. Re: High Current Horror Stories

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-24 22:41:13 UTC
From: Roger Gt <not@here.net>
Message-ID: <duPWc.11225$cH.6547@newssvr27.news.prodigy.com>
Source record: 23831

"James Horn" <jimhorn@svn.net> wrote in message
news:10indl911s1iv25@corp.supernews.com...
: While not low voltage, I remember reading in the '60s in
Scientific
: American an article which mentioned how many milliamps of
current was
: enough to be felt / dangerous / deadly, etc. It mentioned that
: substantially larger currents could sometimes even be safer as
they could
: cause involuntary muscle contractions which would interrupt the
current
: flow.
:
: The example given was of a worker at a high-rise construction
site in New
: York who was changing out of his work clothes at the end of his
shift in a
: temporary shack that also housed the site electrical power
connections.
: While doffing his trousers he accidentally backed into a high
voltage
: panel. An estimated 60 amperes passed from one buttock to the
other
: through muscles that immediately straightened, propelling him
through the
: shack and its door and into two lanes of road traffic which
immediately
: stopped.
:
: Because the current didn't pass through any vital organs, he
only
: sustained surface burns and various bruises and scrapes though
the
: electrical panel manufacturer's logo is now mirror-image
tattooed to his
: behind.
:
: I've *gotta* find the source of all this...
: Jim Horn, WB9SYN/6

60 amps though "Human flesh" will cook it well done! 15mA through the vital organs will kill! As little as 30 microamps will cause a severe muscle reaction and not even the sturdiest will be able to resist movement if the current reaches 2 mA.

1950. Re: Surplus 19" equipment rack available in/near Toledo, OH?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-25 00:48:38 UTC
From: kb8uhu@aol.com
Message-ID: <20040824204838.04516.00001665@mb-m27.aol.com>
Source record: 23832

How tall?

de Bob W8IJG

1951. Re: Vertical Antennae matching

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-25 01:06:22 UTC
From: k9sqg@aol.com
Message-ID: <20040824210622.15298.00002384@mb-m04.aol.com>
Source record: 23833

It's not that simple. Getting the antenna resonent is one issue, getting it matched for 50 ohm coax is the other issue. So a simple inductor or capacitor won't always work by itself. Helps with resonence, but not impedance.

1952. Re: Vertical Antennae matching

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-25 01:45:57 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cggr0l$1s1$1@titan.btinternet.com>
Source record: 23834

But a simple inductor AND capacitor always works.

All tuners need at least one capacitor and one inductor.

1953. contestants needed for poker tv

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-25 04:19:25 UTC
From: winhugecash_2005@yahoo.com
Message-ID: <cgh40d$fjo@odbk17.prod.google.com>
Source record: 23835

Please forward this to your friends!

We are looking for contestants to star in a new reality TV show called Final Table Challenge.

The show is scheduled to run like a live Poker TV Show with our first Show at Sams Town in Las Vegas.

The lucky winner will then compete against other poker players in a chance to win some cash and become a TV celebrity.

The worst that will happen is that you get a trip to Las Vegas and you play some poker on our dime.

You should be up for a great time.
Looks etc are not important, but you must be ready for anything.

If you think that you and / or your friends have got what it takes to make it onto the show, just visit our registration and sign up.

http://www.finaltablechallenge.com/registration.php

To find out more details and how to apply to be on The Final Table Challenge TV Show please visit our web site.

http://www.finaltablechallenge.com/registration.php

The signup is free and takes less than 30 seconds. Remember, you can't win unless you're in so apply now !

Don't forget, we want to hear from your friends too, so please forward this mail to them all.

1954. Re: Vertical Antennae matching

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-25 15:25:33 UTC
From: Rick Karlquist N6RK <richard@karlquist.removethis.com>
Message-ID: <Nb2Xc.42797$9d6.33881@attbi_s54>
Source record: 23836

"Airy R. Bean" <me@privacy.net> wrote in message
news:2p1dcjFfvldbU1@uni-berlin.de...
> What do I do, however, for those frequencies for which it is close
> to a half wave? PI network? Or L network?

An L network with reactances of several hundred ohms for
both inductor and capacitor.

Rick N6RK

1955. Re: Looking for griddip meter circuit

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-25 16:21:43 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <cgiefa$656$1@newshost.mot.com>
Source record: 23838

"Ken Scharf" <wa2mzeNOTTHIS@bellsouth.net> wrote in message
news:cCvWc.19263$%n4.15889@bignews6.bellsouth.net...
> Uncle Peter wrote:
> > "Nobody" <Nobody_News@Hotmail.com> wrote in message
> > news:VXNVc.2182$C7.1344@amsnews05.chello.com...
> >
> >>I'm looking for a homebuild Griddip meter circuit so I can build one
> >
> > myself.
> >
> >>has anyone a link or a doc for making one that i can use.
> >>
> >>With kind regards
> >>Nobody

Google had over 15,000 hits for "Grid dip meter"

1956. Re: Vertical Antennae matching

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-25 16:49:39 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10ipgp766lmgg49@corp.supernews.com>
Source record: 23837

A common solution is to use a parallel tuned circuit, approximately resonant, with inductor and capacitor reactances of a couple hundred ohms or so, and the capacitor being adjustable. Connect one end of the network to ground and the other to the antenna. Connect the feedline between ground and a tap near the bottom of the coil. Alternately adjust the tap position and the variable capacitor for the best impedance match.

Roy Lewallen, W7EL

Rick Karlquist N6RK wrote:
> "Airy R. Bean" <me@privacy.net> wrote in message
> news:2p1dcjFfvldbU1@uni-berlin.de...
>
>>What do I do, however, for those frequencies for which it is close
>>to a half wave? PI network? Or L network?
>
>
> An L network with reactances of several hundred ohms for
> both inductor and capacitor.
>
> Rick N6RK
>
>

1957. Re: Vertical Antennae matching

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-25 17:12:21 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2p3vurFg16lnU1@uni-berlin.de>
Source record: 23839

I'm never satisfied, always driven by the spirit
of curiosity and discovery!

Changing the vertical length is not an option as its
an ally pole supporting a tv antenna; it just happens to be insulated
from the ground.

I was planning to put about 20 radials in green-and-yellow, splaying
out from a single copper stake.

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:cgg6jcpiq1@sparta.btinternet.com...
> > What do I do, however, for those frequencies for which it is close
> > to a half wave? PI network? Or L network?
> >
> ==========
>
> You very slightly de-tune (decrease) the antenna length, not enough to
have
> any effect on its radiating properties, such that a simple parallel tuned
> matching circuit will cope.
>
> You can connect a coax feedline line either in series with the coil, an
> L-network. or tap the coax a few turns up the coil. A very modest ground
> connection adjacent to the bottom end of the coil witll suffice.
>
> The same circuit will cater efficiently for quite a wide range of antenna
> heights.
>
> I hope you are satisfied with the above description.
> ---
> Reg, G4FGQ
>
>

1958. Re: Vertical Antennae matching

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-25 17:12:55 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2p3vutFg16lnU2@uni-berlin.de>
Source record: 23840

Hence the question about Pi and L networks.

"K9SQG" <k9sqg@aol.com> wrote in message
news:20040824210622.15298.00002384@mb-m04.aol.com...
> It's not that simple. Getting the antenna resonent is one issue, getting
it
> matched for 50 ohm coax is the other issue. So a simple inductor or
capacitor
> won't always work by itself. Helps with resonence, but not impedance.

1959. Re: Vertical Antennae matching

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-25 17:13:45 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2p3vutFg16lnU3@uni-berlin.de>
Source record: 23841

I've obtained roller coaster and 350 pF TX capacitor.

"Rick Karlquist N6RK" <richard@karlquist.removethis.com> wrote in message
news:Nb2Xc.42797$9d6.33881@attbi_s54...
> "Airy R. Bean" <me@privacy.net> wrote in message
> news:2p1dcjFfvldbU1@uni-berlin.de...
> > What do I do, however, for those frequencies for which it is close
> > to a half wave? PI network? Or L network?
>
> An L network with reactances of several hundred ohms for
> both inductor and capacitor.
>
> Rick N6RK
>
>

1960. Re: Vertical Antennae matching

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-25 17:15:34 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2p3vuuFg16lnU4@uni-berlin.de>
Source record: 23842

Presumably the roller coaster could be used for
a vari-tap, but then that means that the whole coil
will always be in circuit.

Time for a quikc .XLS for all bands.....

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:10ipgp766lmgg49@corp.supernews.com...
> A common solution is to use a parallel tuned circuit, approximately
> resonant, with inductor and capacitor reactances of a couple hundred
> ohms or so, and the capacitor being adjustable. Connect one end of the
> network to ground and the other to the antenna. Connect the feedline
> between ground and a tap near the bottom of the coil. Alternately adjust
> the tap position and the variable capacitor for the best impedance match.
>
> Roy Lewallen, W7EL
>
> Rick Karlquist N6RK wrote:
> > "Airy R. Bean" <me@privacy.net> wrote in message
> > news:2p1dcjFfvldbU1@uni-berlin.de...
> >
> >>What do I do, however, for those frequencies for which it is close
> >>to a half wave? PI network? Or L network?
> >
> >
> > An L network with reactances of several hundred ohms for
> > both inductor and capacitor.
> >
> > Rick N6RK
> >
> >

1961. Re: Looking for griddip meter circuit

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-25 17:43:31 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <MPG.1b966f9d71d5be4298970f@news-central.giganews.com>
Source record: 23843

In article <cgiefa$656$1@newshost.mot.com>,
suteuve.nosukowicuz@moutouroula.com says...
>
> "Ken Scharf" <wa2mzeNOTTHIS@bellsouth.net> wrote in message
> news:cCvWc.19263$%n4.15889@bignews6.bellsouth.net...
> > Uncle Peter wrote:
> > > "Nobody" <Nobody_News@Hotmail.com> wrote in message
> > > news:VXNVc.2182$C7.1344@amsnews05.chello.com...
> > >
> > >>I'm looking for a homebuild Griddip meter circuit so I can build one
> > >
> > > myself.
> > >
> > >>has anyone a link or a doc for making one that i can use.
> > >>
> > >>With kind regards
> > >>Nobody

Interestingly, I hardly ever use my grid-dipper anymore after building
the L/C Meter IIB from www.aade.com. Tank circuits at less than 50 MHz
or so can be set up by just measuring the component values in question
and running the numbers.

I don't have anything to do with the AADE people, just an unsolicited
testimonial. If your work is primarily at HF, you will find a high-
precision L/C meter just as valuable if not more so. (Of course, it
can't act as a signal source or an absorption wavemeter the way most
real GDOs can.)

-- jm

---

http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

1962. Re: Vertical Antennae matching

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-25 18:06:25 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10ipl95hegeci4a@corp.supernews.com>
Source record: 23844

There's no reason you can't make the inductor variable instead of the capacitor -- as long as it has some way of making a variable tap. With the method I described, you have to be able to adjust both the tank's resonant frequency and the tap in order to assure getting a match.

Roy Lewallen, W7EL

Airy R. Bean wrote:

> Presumably the roller coaster could be used for
> a vari-tap, but then that means that the whole coil
> will always be in circuit.
>
> Time for a quikc .XLS for all bands.....
>

1963. Re: High Current Horror Stories

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-25 21:17:32 UTC
From: James Horn <jimhorn@svn.net>
Message-ID: <10iq0fcq9vnv188@corp.supernews.com>
Source record: 23845

Roger Gt <not@here.net> wrote:

> 60 amps though "Human flesh" will cook it well done! 15mA through
> the vital organs will kill! As little as 30 microamps will cause
> a severe muscle reaction and not even the sturdiest will be able
> to resist movement if the current reaches 2 mA.

Generally true, Roger, but *time* is as important a variable as well. To cook anything well done takes substantial energy and that's a function of current, voltage and time. The point of the story was that the effect was immediate, the current flow brief, and the surface was still burned.

I don't volunteer to try recreating the experiment though!

Jim Horn, WB9SYN/6

1964. Noisy trimmer pots

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-25 22:44:58 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <t15qi019vmir74tpl400f5kl2tfkqauu12@4ax.com>
Source record: 23846

Hi,

I bought a big bag of surplus assorted trimmer pots at a radio rally 2 years ago. They're all unused, which I assumed meant they'd be trouble-free. However, many of them seem to have gone very 'noisy' and if one tries to wind them from one end to the other, the resulting voltage readings jump around a lot and often have 'blank' areas for part of an arc where no contact seems to be being made between wiper and track. I immediately suspected that they'd probably require a good dousing with switch-lubricant, but I'm not sure if that's the best remedy and even if it is, there doesn't seem to be any serviceable access into them through which one might be able to spray some lube. The ones I have are between a quarter and one-half inch in diameter approx and have a protective casing around them, unlike the good old skeleton presets one could get at easily. Anyone care to give me any tips on the best way to revitalise these old pots?

Thanks.
--

"What is now proved was once only imagin'd." - William Blake, 1793.

1965. Re: Noisy trimmer pots

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-25 23:24:50 UTC
From: jgboyles@aol.com
Message-ID: <20040825192450.15906.00002617@mb-m21.aol.com>
Source record: 23747

>Anyone care to give me any
>tips on the best way to revitalise these old pots?

No way if these are sealed. They are probably carbon composition, which is notorious for getting noisy with age. The trash container is where I would deposit them. New ones are not that expensive, but I have used new ones that are noisy.
Ham radio stuff, they might work after a fashion, but I would be very careful using them in a critical circuit.
73 Gary N4AST

1966. Re: Looking for griddip meter circuit

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-25 23:29:43 UTC
From: jgboyles@aol.com
Message-ID: <20040825192944.15906.00002618@mb-m21.aol.com>
Source record: 23748

>Google had over 15,000 hits for "Grid dip meter"

I noticed that myself, has anybody looked past the first hundred? Any
content?
73 Gary N4AST

1967. Re: Replacement Transistor

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-26 01:16:59 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <fSaXc.9517$A8.5158@edtnps89>
Source record: 23749

I have used 2N3819 with success.

--
Gregg t3h g33k
"Ratings are for transistors....tubes have guidelines"
http://geek.scorpiorising.ca

1968. Re: Noisy trimmer pots

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-26 01:17:58 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <aTaXc.9518$A8.7272@edtnps89>
Source record: 23750

WD-40

--
Gregg t3h g33k
"Ratings are for transistors....tubes have guidelines"
http://geek.scorpiorising.ca

1969. Re: High Current Horror Stories

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-26 01:21:59 UTC
From: Roger Gt <not@here.net>
Message-ID: <XWaXc.11726$Xb4.10430@newssvr27.news.prodigy.com>
Source record: 23751

"James Horn" <jimhorn@svn.net> wrote in message
news:10iq0fcq9vnv188@corp.supernews.com...
: Roger Gt <not@here.net> wrote:
:
: > 60 amps though "Human flesh" will cook it well done! 15mA
through
: > the vital organs will kill! As little as 30 microamps will
cause
: > a severe muscle reaction and not even the sturdiest will be
able
: > to resist movement if the current reaches 2 mA.
:
:
: Generally true, Roger, but *time* is as important a variable as
well. To
: cook anything well done takes substantial energy and that's a
function of
: current, voltage and time. The point of the story was that the
effect was
: immediate, the current flow brief, and the surface was still
burned.
:
: I don't volunteer to try recreating the experiment though!
:
: Jim Horn, WB9SYN/6
:

I wasn't trying to paint a picture, that was the story tellers job, I only volunteered a little information. However, I do doubt that he got 60 amperes through his buttocks! The current would have caused the required impulse to part with the voltage rather early on. (:>)

I actually worked in a place where they were testing nerve stimulus devices which allowed for diagnosing whether there was damage in some particular part of the body. As a final test they had the technicians put needles into their arms to take a sample reading. I passed on that one. Those poor guys ever got stopped by the police they would have a hard time explaining the tracks.

1970. Tek 2792P

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-26 01:30:24 UTC
From: MGI2121 <mgi2121@nowhere.land.com>
Message-ID: <Q2bXc.11731$We4.1365@newssvr27.news.prodigy.com>
Source record: 23754

Hello everybody:

I am thinking about buying a second hand Tek 2792 spectrum analyzer. Can anybody give me some recommendations or comments about this unit?

What about parts, service manuals, repair difficulty.....I know that this a surplus market unit.

Thank you

1971. Re: Replacement Transistor

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-26 01:30:56 UTC
From: TIFort <beerbarrelNOSPAM@cox.net>
Message-ID: <u8fqi01abm20edj013hous938q7e0a6l29@4ax.com>
Source record: 23752

On Thu, 26 Aug 2004 01:16:59 GMT, Gregg <nospam@unknown.org> wrote:

>I have used 2N3819 with success.

That seems to be another TO-92 case item. Is it available in a surface
mount package anywhere that you know of?

Thanks

1972. RF parts and equipment

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-26 02:24:17 UTC
From: MGI2121 <mgi2121@nowhere.land.com>
Message-ID: <lRbXc.11741$sJ4.9031@newssvr27.news.prodigy.com>
Source record: 23755

If you are looking for a good source of RF parts and equipment
http://stores.ebay.com/RF-Gelitronics

1973. Re: Replacement Transistor

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-26 02:57:50 UTC
From: Leon Heller <leon_heller@hotmail.com>
Message-ID: <412d51ae$0$20247$cc9e4d1f@news-text.dial.pipex.com>
Source record: 23753

"TlFort" <beerbarrelNOSPAM@cox.net> wrote in message
news:rf7ni05eq23b28vg3lu1v2mgl3dbch7kqa@4ax.com...
> Does anyone have an idea what a suitable replacement would be for a
> MPF102 transistor? The MPF102 comes in a TO92 case. I would like to
> find a transistor that would sub with this but be in a surface mount
> package. I've looked at quite a few places around the internet but
> can't get one to cross exactly. If it's not a exact match, I guess I
> could go with one with a little more gain.

Dual-gate MOSFETs like the BF981 are widely available in SM. You could tie
the two gates together. You will probably have to modify the circuit,
though.

Leon

1974. Re: Tek 2792P

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-26 03:57:30 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <MPG.1b96ff88e01ebb57989710@news-central.giganews.com>
Source record: 23756

In article <Q2bXc.11731$We4.1365@newssvr27.news.prodigy.com>, mgi2121
@nowhere.land.com says...
> Hello everybody:
>
> I am thinking about buying a second hand Tek 2792 spectrum analyzer. Can
> anybody give me some recommendations or comments about this unit?
>
> What about parts, service manuals, repair difficulty.....I know that this
> a surplus market unit.
>
> Thank you

I'd be curious what you hear. The 2790 series seemed to be pretty
similar to the 490 series, which is very well-documented. But the
contemporary 2782/2784 models weren't documented at all beyond the
module level.

Maybe Jim Yanik (ex-Tek service guy) will see your inquiry and respond.
You also might try the TekScopes reflector at Yahoo Groups.

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

1975. Re: Noisy trimmer pots

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-26 04:28:49 UTC
From: ehsjr@bellatlantic.net
Message-ID: <5GdXc.9574$VY.2134@trndny09>
Source record: 23757

Paul Burridge wrote:

>Hi,
>
>I bought a big bag of surplus assorted trimmer pots at a radio rally 2
>years ago. They're all unused, which I assumed meant they'd be
>trouble-free. However, many of them seem to have gone very 'noisy' and
>if one tries to wind them from one end to the other, the resulting
>voltage readings jump around a lot and often have 'blank' areas for
>part of an arc where no contact seems to be being made between wiper
>and track. I immediately suspected that they'd probably require a good
>dousing with switch-lubricant, but I'm not sure if that's the best
>remedy and even if it is, there doesn't seem to be any serviceable
>access into them through which one might be able to spray some lube.
>The ones I have are between a quarter and one-half inch in diameter
>approx and have a protective casing around them, unlike the good old
>skeleton presets one could get at easily. Anyone care to give me any
>tips on the best way to revitalise these old pots?
>
>Thanks.
>
>
A trimmer pot shouldn't be intended for use in a circuit requiring
frequent adjustment - which means that the noisy behavior you
see may not be a show stopper. You can crank the thing through
a few cycles which may clean it well enough for use. If you are
going to toss them anyway, then experiment to see if you can salvage
them. Someone mentioned WD-40. You could dunk one in
isopropyl alchohol and crank it while immersed, then let it air dry.
It's worth experimenting, even if you end up tossing them all.
At least you'll learn what doesn't work!

1976. QRP receivers: LM386 as audio filter + amplifier ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-26 08:44:07 UTC
From: n1jpr@hotmail.com
Message-ID: <95a201e0.0408260044.76f4b27c@posting.google.com>
Source record: 23758

I would like to build a minimalistic
AF chain for small HF receivers,
that would limit the audio passband
to either 300-2800 Hz or 700-900 Hz.

The LM386 audio amplifier has a tempting inverting input.
Did anyone try to design it into a 1-device
audio filter + power amplifier?

I looked around, pored over the applications sheet,
but found no examples.

I did this playing with TAA611's many years ago. Then I did find
rather clear indications on how to lower the high frequency cutoff -
but nothing similar with the LM386.

Any hints?

Or,
why isn't this done
as a matter of course,
as I
perhaps mistakenly
think it should?

73 de n1jpr/i2

http://filippo.ru.ru
http://webfools.net/filippo/desert-ratt.html

1977. Re: Replacement Transistor

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-26 10:24:30 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <mheri017h34l4406ivvcoko1jaqnvo3ijb@4ax.com>
Source record: 23759

On Thu, 26 Aug 2004 03:57:50 +0100, "Leon Heller"
<leon_heller@hotmail.com> wrote:

>"TlFort" <beerbarrelNOSPAM@cox.net> wrote in message
>news:rf7ni05eq23b28vg3lu1v2mgl3dbch7kqa@4ax.com...
>> Does anyone have an idea what a suitable replacement would be for a
>> MPF102 transistor? The MPF102 comes in a TO92 case. I would like to
>> find a transistor that would sub with this but be in a surface mount
>> package. I've looked at quite a few places around the internet but
>> can't get one to cross exactly. If it's not a exact match, I guess I
>> could go with one with a little more gain.
>
>Dual-gate MOSFETs like the BF981 are widely available in SM. You could tie
>the two gates together. You will probably have to modify the circuit,
>though.
>
>Leon
>

with the two gates together you get 3N128....

J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

1978. Re: Noisy trimmer pots

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-26 14:33:35 UTC
From: Phil Munro <PcMunro@cc.ysu.edu>
Message-ID: <412df371$1@news.ysu.edu>
Source record: 23760

ehsjr@bellatlantic.net wrote:

> Paul Burridge wrote:
>
>> Hi,
>>
>> I bought a big bag of surplus assorted trimmer pots at a radio rally 2
>> years ago. They're all unused, which I assumed meant they'd be
>> trouble-free. However, many of them seem to have gone very 'noisy' and
>> if one tries to wind them from one end to the other, the resulting
>> voltage readings jump around a lot and often have 'blank' areas for
>> part of an arc where no contact seems to be being made between wiper
>> and track. I immediately suspected that they'd probably require a good
>> dousing with switch-lubricant, but I'm not sure if that's the best
>> remedy and even if it is, there doesn't seem to be any serviceable
>> access into them through which one might be able to spray some lube.
>> The ones I have are between a quarter and one-half inch in diameter
>> approx and have a protective casing around them, unlike the good old
>> skeleton presets one could get at easily. Anyone care to give me any
>> tips on the best way to revitalise these old pots?
>>
>> Thanks.
>>
> A trimmer pot shouldn't be intended for use in a circuit requiring
> frequent adjustment - which means that the noisy behavior you
> see may not be a show stopper. You can crank the thing through
> a few cycles which may clean it well enough for use. If you are
> going to toss them anyway, then experiment to see if you can salvage
> them. Someone mentioned WD-40. You could dunk one in
> isopropyl alchohol and crank it while immersed, then let it air dry.
> It's worth experimenting, even if you end up tossing them all.
> At least you'll learn what doesn't work!
In the old days (many years ago) we used "Quietrole", a red liquid,
on pots. It contained carbon tet AND a lubricant (I was told back then)
and it worked very well. Of course that was on the older rotary pots
in use at the time.
I think that stuff may still be available in a spray can, but it
has been quite a few years since I bought a can of it. --Phil

--
Phil Munro Dept of Electrical & Computer Engin
mailto:PcMunro@cc.ysu.edu Youngstown State University
Youngstown, Ohio 44555

1979. Re: QRP receivers: LM386 as audio filter + amplifier ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-26 15:02:10 UTC
From: John Walton <jdwalton@comcast.net>
Message-ID: <2fadnZA_Nt32Z7DcRVn-ig@comcast.com>
Source record: 23761

If you are going QRP there are now much lower ambient current devices than the LM386 -- secondly, if you go to Texas Instruments website you can download their FilterPro software -- you can program gain and Q into the devices. Analog Devices also has some good interactive filter design software.

Jack

"SpamHog" <n1jpr@hotmail.com> wrote in message
news:95a201e0.0408260044.76f4b27c@posting.google.com...
> I would like to build a minimalistic
> AF chain for small HF receivers,
> that would limit the audio passband
> to either 300-2800 Hz or 700-900 Hz.
>
> The LM386 audio amplifier has a tempting inverting input.
> Did anyone try to design it into a 1-device
> audio filter + power amplifier?
>
> I looked around, pored over the applications sheet,
> but found no examples.
>
> I did this playing with TAA611's many years ago. Then I did find
> rather clear indications on how to lower the high frequency cutoff -
> but nothing similar with the LM386.
>
> Any hints?
>
> Or,
> why isn't this done
> as a matter of course,
> as I
> perhaps mistakenly
> think it should?
>
>
> 73 de n1jpr/i2
>
> http://filippo.ru.ru
> http://webfools.net/filippo/desert-ratt.html

1980. Re: Noisy trimmer pots

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-26 16:36:03 UTC
From: Mark V Russo <rmrusso1@optonline.net>
Message-ID: <412E1251.7060703@optonline.net>
Source record: 23762

Hi, Just get a can of tuner spray, sometimes called TV tuner spray,
tuner shower, etc..
That usually works. It is a common thing.
Most of the electronic stores will have it.
73

Paul Burridge wrote:

>Hi,
>
>I bought a big bag of surplus assorted trimmer pots at a radio rally 2
>years ago. They're all unused, which I assumed meant they'd be
>trouble-free. However, many of them seem to have gone very 'noisy' and
>if one tries to wind them from one end to the other, the resulting
>voltage readings jump around a lot and often have 'blank' areas for
>part of an arc where no contact seems to be being made between wiper
>and track. I immediately suspected that they'd probably require a good
>dousing with switch-lubricant, but I'm not sure if that's the best
>remedy and even if it is, there doesn't seem to be any serviceable
>access into them through which one might be able to spray some lube.
>The ones I have are between a quarter and one-half inch in diameter
>approx and have a protective casing around them, unlike the good old
>skeleton presets one could get at easily. Anyone care to give me any
>tips on the best way to revitalise these old pots?
>
>Thanks.
>
>

1981. Re: 5/8 square fiberglass tubing?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-26 17:34:21 UTC
From: munged@address.com
Message-ID: <1093541661.138839@cswreg.cos.agilent.com>
Source record: 23763

Dustin <fordman@btc-bci.com> wrote:
> Hello, I am looking for an online source for 5/8 fiberglass or solid plastic
> tubing? if you can help me It would be very much appreciated.

http://www.tapplastics.com - will ship anywhere in USA.

Don K6LTS

1982. Re: Noisy trimmer pots

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-26 18:12:30 UTC
From: clifto <clifto@clifto.com>
Message-ID: <epl102-b6v.ln1@remote.clifto.com>
Source record: 23764

Phil Munro wrote:
> In the old days (many years ago) we used "Quietrole", a red liquid,
> on pots. It contained carbon tet AND a lubricant (I was told back then)
> and it worked very well. Of course that was on the older rotary pots
> in use at the time.

DeOxit makes a 5% spray that's good. However, the OP says he can't see a
way into the trimmer body.

--
If Kerry can't cope with the "Republican Attack Machine",
how can he hope to deal with Al Qaeda?

1983. Re: Noisy trimmer pots

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-26 20:33:54 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <cglhk6$m1h$1@newshost.mot.com>
Source record: 23771

"Mark V Russo" <rmrusso1@optonline.net> wrote in message
news:412E1251.7060703@optonline.net...

Hi, Just get a can of tuner spray, sometimes called TV tuner spray, tuner shower, etc..
73

Paul Burridge wrote:
Hi,

I bought a big bag of surplus assorted trimmer pots at a radio rally 2
years ago. They're all unused, which I assumed meant they'd be
trouble-free. However, many of them seem to have gone very 'noisy' and
if one tries to wind them from one end to the other, ...Radio Shack carried this. I have a can, but don't know if it is still available.-- Steve N, K,9;d, c. i My email has no u's.

1984. Re: QRP receivers: LM386 as audio filter + amplifier ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-26 23:21:08 UTC
From: Skipp <skippzerotwofive@yahoo.com>
Message-ID: <cglr94dpr1@skeeter.ucdavis.edu>
Source record: 23765

I've got just the LM-386 circuit for you, with graphs. Email me direct
and I'll send you a scan.

cheers
skipp025 at yahoo.com

: SpamHog <n1jpr@hotmail.com> wrote:
: I would like to build a minimalistic
: AF chain for small HF receivers,
: that would limit the audio passband
: to either 300-2800 Hz or 700-900 Hz.

: The LM386 audio amplifier has a tempting inverting input.
: Did anyone try to design it into a 1-device
: audio filter + power amplifier?

: I looked around, pored over the applications sheet,
: but found no examples.

: I did this playing with TAA611's many years ago. Then I did find
: rather clear indications on how to lower the high frequency cutoff -
: but nothing similar with the LM386.

: Any hints?

: Or,
: why isn't this done
: as a matter of course,
: as I
: perhaps mistakenly
: think it should?

: 73 de n1jpr/i2

: http://filippo.ru.ru
: http://webfools.net/filippo/desert-ratt.html

1985. DIODES: 1 KV AT 1.5A

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-26 23:31:45 UTC
From: Heytubeguy <heytubeguy@worldnet.att.net>
Message-ID: <BpuXc.254445$OB3.29399@bgtnsc05-news.ops.worldnet.att.net>
Source record: 23766

I ship ANY quantity at $0.10 each + SHIPPING. NOS

Joe

1986. Surplus for sale

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-27 01:19:00 UTC
From: Brian - KB9BVN <kb9bvn@arrl.net>
Message-ID: <8_vXc.4944$Y%3.259@newsread2.news.atl.earthlink.net>
Source record: 23767

I have a bunch of PNP 2N2907 transistors in the plastic TO92 format.

I am selling them for $4.00 per 50 pieces

These compliment the ever popular 2N2222 version of NPN's out there.

Look here for data sheet: http://library.solarbotics.net/datasheets/

73

Paypal is accepted, snail mail to my QRZ address.

==========
KB9BVN/QRP QRP-L 1540 QRP-ARCI 10223
39.558 N 86.095 W Johnson Co., Indiana
GRID: EM69WN - Elecraft K1 - Attic Dipole - 5w
Member of the ARRL - SOC #400
FISTS 5695 CC 764 FPQRP #-57
==========

1987. Re: Surplus for sale

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-27 02:33:35 UTC
From: Gary Schafer <gaschafer@comcast.net>
Message-ID: <oa7ti0tkrmc1c2k254v2rjav4rd1aicuv4@4ax.com>
Source record: 23768

Would you have any mps A29 transistors?

Thanks
Gary K4FMX

On Fri, 27 Aug 2004 01:19:00 GMT, "Brian - KB9BVN" <kb9bvn@arrl.net>
wrote:

>I have a bunch of PNP 2N2907 transistors in the plastic TO92 format.
>
>I am selling them for $4.00 per 50 pieces
>
>These compliment the ever popular 2N2222 version of NPN's out there.
>
>Look here for data sheet: http://library.solarbotics.net/datasheets/
>
>73
>
>Paypal is accepted, snail mail to my QRZ address.
>
>
>==
> KB9BVN/QRP QRP-L 1540 QRP-ARCI 10223
> 39.558 N 86.095 W Johnson Co., Indiana
> GRID: EM69WN - Elecraft K1 - Attic Dipole - 5w
> Member of the ARRL - SOC #400
> FISTS 5695 CC 764 FPQRP #-57
>==
>

1988. GOT BUGS?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-27 03:01:29 UTC
From: surveillanceinc@aol.com
Message-ID: <20040826230129.16562.00002816@mb-m22.aol.com>
Source record: 23769

GOT BUGS?

{ YOU KNOW- THE KIND THAT HEAR AND SEE EVERYTHING YOU DO}

We find them fast and dispatch the little buggers super fast. We employ government level Spectrum Analyzers. We sweep to 22-GHZ and above if necessary. We use real TDR's (Time Domain Reflectometers) to sweep your phone lines. We also sweep limos and private jets, cars... And of course, we offer complete computer forensics to sweep your computer for the insidious SPYWARE which records your every email, keystroke, picture, instant message, virtually everything on your computer and summarily sends it back secretly to its waiting master. SPYWARE is so sneaky that it can and will change directories to avoid being discovered. We will find and execute the slimy little buggers and install a program on your computer to keep them out for good. We're pros with the right equipment to do the job right the first time. You won't find any SPY STORE toys here. No little mysterious black boxes with long antennas and a guy running around chasing mysterious signals in the air. We utilize SPECTRUM ANALYZERS which you could expect to pay $30,000 to $50,000 for a lab grade unit. The same applies to our TDR's- all pro equipment, period. Ask about our SPECIAL- $99.00 SWEEP for RF bugs and COVERT MICRO VIDEO CAMERAS. UP TO THREE ROOMS, Los Angeles area only. Email SurveillanceInc@aol.com

1989. How to bias a MOSFET amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-27 05:40:36 UTC
From: meara.london@virgin.net
Message-ID: <22f6e3ee.0408262140.383c9581@posting.google.com>
Source record: 23770
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design

I'm trying to improve my limited understanding of how RF amps operate. I've been studying "Solid State Design for the Radio Amateur" and Experimental Methods in RF Design"

SSDRA has a very helpful section that asks the reader to calculate max output power for a Class A RF amp (common emitter). They ask the reader to consider maximum voltage and current swings in the collector circuit that will keep the output linear. Basically, my understanding is that (with an RF choke in the Vcc line) max peak signal voltage on collector is Vc-Ve. Max peak current is the standing or quiescent current. In this way when the collector voltage is hitting its peak collector current is dropping almost to zero.

While the SSDRA example uses BJTs, I'm guessing that essentially the same restrictions would apply to the drain circuit of a MOSFET amp.

Here's my problem: When I look at MOSFET amp circuits in the literature, they often have linear amps with 12 volts on the drain, but with standing currents of only around 40 milliamps. And they claim 7 watts out. How can that be? Using the analysis outlined above, I'd think that you'd get max output of 12*.040 = .48 watts.

Here's an example: I've been looking at Farhan's very FB SSB Transceiver
http://farhan.net.co.nr/xcvr1.html

I'm trying to understand the biasing on his IRF510 final, and the RF output he's getting.

He says he measures 20-24 volts peak RF across a 50 ohm load at the output. That's about 8 watts peak output.

He's using 12 volt supply, and recommends setting the idle current through the MOSFET at 80 ma. Can that be right? According to my reading of Solid State Design for the Radio Amateur (SSDRA)(page 23) with a 12 volt supply we can expect peak signal voltage at the Drain of around 12 volts (with an RF choke in Vcc line). Peak current could be max 80 ma.(maintaining Class A). Under these biasing conditions, assuming Class A operation, max output power of .96 watts would be provided by a load of 150 ohms.

Even if he were to be running this amp Class B (or close to it), I can't see how he'd get 8 watts out with only 80 milliamps of standing current

I'm very new to this kind of analysis, and strongly suspect that I'm misreading either SSDRA or Farhan's excellent article.

Can someone please let me know where this apparent discrepency is coming from.

Thanks and 73

Bill N2CQR M0HBR CU2JL
http://planeta.clix.pt/n2cqr

1990. Doubling a reference frequency

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-27 07:32:37 UTC
From: mike@corn2.freeserve.co.uk
Message-ID: <412ee1b0.84629680@news.freeserve.net>
Source record: 23772

GM Folks,
My 10Mhz TCXO that I use for a frequency counter timebase has gone toes up and I only have a 5Mhz one available to replace it. Can anyone offer ideas to double the 5 Mhz TCXO keeping the M:S ratio accurate enough for use with the frequency counter ?.

The 5Mhz TCXO has an output of 2v P-P sinewave into 50R and I need TTL level 50:50 M:S at 10Mhz.

Thanks, Mike W

1991. Re: Doubling a reference frequency

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-27 07:48:58 UTC
From: Leon Heller <leon_heller@hotmail.com>
Message-ID: <412ee768$0$20254$cc9e4d1f@news-text.dial.pipex.com>
Source record: 23773

"Mike W" <mike@corn2.freeserve.co.uk> wrote in message
news:412ee1b0.84629680@news.freeserve.net...
> GM Folks,
> My 10Mhz TCXO that I use for a frequency counter timebase has gone
> toes up and I only have a 5Mhz one available to replace it. Can anyone
> offer ideas to double the 5 Mhz TCXO keeping the M:S ratio accurate
> enough for use with the frequency counter ?.
>
> The 5Mhz TCXO has an output of 2v P-P sinewave into 50R and I need TTL
> level 50:50 M:S at 10Mhz.

You could use a diode doubler with a tuned 10 MHz amplifier.

73, Leon

1992. Re: How to bias a MOSFET amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-27 09:54:41 UTC
From: legg <legg@nospam.magma.ca>
Message-ID: <pn0ui0pn61pp888ctiqhc4ul2bt5choop0@4ax.com>
Source record: 23774
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design

On 26 Aug 2004 22:40:36 -0700, meara.london@virgin.net (Bill N2CQR MOHBR) wrote:

>I'm trying to improve my limited understanding of how RF amps operate.
>I've been studying "Solid State Design for the Radio Amateur" and
>Experimental Methods in RF Design"

Keep studying.

The static bias is the zero-signal drain current and your calculation is for static DC loss. Signals applied to the gate can add to the drain current, as well as subtract.

RF final amps are unlikely to be biased classA. Class B and C will have the final acting more like a switch. Current is imited by the load impedance - which in this case is a complex impedance that looks like 50 ohms at the output only.

As to the answer for your posting - the fet in this case is biased by varying gate static voltage using the variable resistor in the schematic, as instructed.

RL

1993. Re: GOT BUGS?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-27 11:31:57 UTC
From: Scott <acepilot@bloomer.net>
Message-ID: <X_SdnSjxcPq2hrLcRVn-rA@bright.net>
Source record: 23775

What about IR transmitters? Spectrum Analyzer useless at light frequencies.

SurveillanceInc wrote:

> GOT BUGS?
>
> { YOU KNOW- THE KIND THAT HEAR AND SEE EVERYTHING YOU DO}
>
> We find them fast and dispatch the little buggers super fast. We employ
> government level Spectrum Analyzers. We sweep to 22-GHZ and above if
> necessary. We use real TDR's (Time Domain Reflectometers) to sweep your phone
> lines. We also sweep limos and private jets, cars... And of course, we offer
> complete computer forensics to sweep your computer for the insidious SPYWARE
> which records your every email, keystroke, picture, instant message, virtually
> everything on your computer and summarily sends it back secretly to its waiting
> master. SPYWARE is so sneaky that it can and will change directories to avoid
> being discovered. We will find and execute the slimy little buggers and
> install a program on your computer to keep them out for good. We're pros with
> the right equipment to do the job right the first time. You won't find any SPY
> STORE toys here. No little mysterious black boxes with long antennas and a guy
> running around chasing mysterious signals in the air. We utilize SPECTRUM
> ANALYZERS which you could expect to pay $30,000 to $50,000 for a lab grade
> unit. The same applies to our TDR's- all pro equipment, period. Ask about our
> SPECIAL- $99.00 SWEEP for RF bugs and COVERT MICRO VIDEO CAMERAS. UP TO THREE
> ROOMS, Los Angeles area only. Email SurveillanceInc@aol.com
>
>
>

1994. Re: DIODES: 1 KV AT 1.5A

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-27 11:38:17 UTC
From: "f.dinger" <f.dinger@ntlworld.com>
Message-ID: <J2FXc.63$2z5.21@newsfe5-win.ntli.net>
Source record: 23776

> I ship ANY quantity at $0.10 each + SHIPPING. NOS
==========
If 1 kV is Peak Inverse Voltage (PIV) , these diodes are suitable for (only)
350 Volt RMS max.
The potential seller could perhaps be more specific when making his offer.

Frank GM0CSZ / KN6WH

1995. Re: How to bias a MOSFET amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-27 13:07:46 UTC
From: John Walton <jdwalton@comcast.net>
Message-ID: <r-udnY8fydKFrLLcRVn-og@comcast.com>
Source record: 23777
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design

It's a bias voltage, rather than a bias current. The MOSFET enters its
linear conducting area after a certain threshold voltage is attained.

"Bill N2CQR MOHBR" <meara.london@virgin.net> wrote in message
news:22f6e3ee.0408262140.383c9581@posting.google.com...
> I'm trying to improve my limited understanding of how RF amps operate.
> I've been studying "Solid State Design for the Radio Amateur" and
> Experimental Methods in RF Design"
>
> SSDRA has a very helpful section that asks the reader to calculate max
> output power for a Class A RF amp (common emitter). They ask the
> reader to consider maximum voltage and current swings in the collector
> circuit that will keep the output linear. Basically, my understanding
> is that (with an RF choke in the Vcc line) max peak signal voltage on
> collector is Vc-Ve. Max peak current is the standing or quiescent
> current. In this way when the collector voltage is hitting its peak
> collector current is dropping almost to zero.
>
> While the SSDRA example uses BJTs, I'm guessing that essentially the
> same restrictions would apply to the drain circuit of a MOSFET amp.
>
> Here's my problem: When I look at MOSFET amp circuits in the
> literature, they often have linear amps with 12 volts on the drain,
> but with standing currents of only around 40 milliamps. And they
> claim 7 watts out. How can that be? Using the analysis outlined
> above, I'd think that you'd get max output of 12*.040 = .48 watts.
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> Here's an example: I've been looking at Farhan's very FB SSB
> Transceiver
> http://farhan.net.co.nr/xcvr1.html
>
> I'm trying to understand the biasing on his IRF510 final, and the RF
> output he's getting.
>
> He says he measures 20-24 volts peak RF across a 50 ohm load at the
> output. That's about 8 watts peak output.
>
> He's using 12 volt supply, and recommends setting the idle current
> through the MOSFET at 80 ma. Can that be right? According to my
> reading of Solid State Design for the Radio Amateur (SSDRA)(page 23)
> with a 12 volt supply we can expect peak signal voltage at the Drain
> of around 12 volts (with an RF choke in Vcc line). Peak current could
> be max 80 ma.(maintaining Class A). Under these biasing conditions,

> assuming Class A operation, max output power of .96 watts would be
> provided by a load of 150 ohms.
>
> Even if he were to be running this amp Class B (or close to it), I
> can't see how he'd get 8 watts out with only 80 milliamps of standing
> current
>
> I'm very new to this kind of analysis, and strongly suspect that I'm
> misreading either SSDRA or Farhan's excellent article.
>
> Can someone please let me know where this apparent discrepency is
> coming from.
>
> Thanks and 73
>
> Bill N2CQR M0HBR CU2JL
> http://planeta.clix.pt/n2cqr

1996. Re: QRP receivers: LM386 as audio filter + amplifier ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-27 13:54:08 UTC
From: n1jpr@hotmail.com
Message-ID: <95a201e0.0408270554.42b01e91@posting.google.com>
Source record: 23778

Thank you Jack!

> If you are going QRP there are now much lower
> ambient current devices than the LM386

Any specific device you would suggest?

> Texas Instruments / Analog Devices

I'm heading there!

BR + 73

Filippo

1997. Re: Doubling a reference frequency

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-27 14:36:49 UTC
From: Gary Schafer <gaschafer@comcast.net>
Message-ID: <dmhui05qs5c0dkavbbb3ldbtqb5ft5796d@4ax.com>
Source record: 23779

Check your counter specs. Some will take 1, 5 or 10 mhz time base
without doing anything.

73
Gary K4FMX

On Fri, 27 Aug 2004 07:32:37 GMT, mike@corn2.freeserve.co.uk (Mike W)
wrote:

>GM Folks,
>My 10Mhz TCXO that I use for a frequency counter timebase has gone
>toes up and I only have a 5Mhz one available to replace it. Can anyone
>offer ideas to double the 5 Mhz TCXO keeping the M:S ratio accurate
>enough for use with the frequency counter ?.
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>The 5Mhz TCXO has an output of 2v P-P sinewave into 50R and I need TTL
>level 50:50 M:S at 10Mhz.
>
>Thanks, Mike W

1998. Re: Noisy trimmer pots

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-27 14:43:21 UTC
From: Phil Munro <PcMunro@cc.ysu.edu>
Message-ID: <412f4820$1@news.ysu.edu>
Source record: 23780

clifto wrote:

> Phil Munro wrote:
>
>> In the old days (many years ago) we used "Quietrole", a red liquid,
>>on pots. It contained carbon tet AND a lubricant (I was told back then)
>>and it worked very well. Of course that was on the older rotary pots
>>in use at the time.
>
> DeOxit makes a 5% spray that's good. However, the OP says he can't see a
> way into the trimmer body.
>
With the Quietrole stuff and the old rotary pots, we used to have
some success with taking the knob off and dropping some liquid on the
shaft. It didn't work as well (as fast) as squirting it into the open
spot on the pots, but it would work many times.
But as I remember it, it was important to get something specifically
for cleaning pots, since carbon tet by itself would not leave behind
the appropriate lub for a lasting solution. --Phil
--
Phil Munro Dept of Electrical & Computer Engin
mailto:PcMunro@cc.ysu.edu Youngstown State University
Youngstown, Ohio 44555

1999. Re: How to bias a MOSFET amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-27 15:07:02 UTC
From: John Larkin <jjlarkin@highlandSNIPtechTHISnologyPLEASE.com>
Message-ID: <10jui09a0umnq61k470i6bevd0rm9kdd46@4ax.com>
Source record: 23781
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design

On 26 Aug 2004 22:40:36 -0700, meara.london@virgin.net (Bill N2CQR MOHBR) wrote:

>
>Even if he were to be running this amp Class B (or close to it), I
>can't see how he'd get 8 watts out with only 80 milliamps of standing
>current
>
>I'm very new to this kind of analysis, and strongly suspect that I'm
>misreading either SSDRA or Farhan's excellent article.
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>Can someone please let me know where this apparent discrepency is
>coming from.
>
>Thanks and 73
>
>Bill N2CQR M0HBR CU2JL
>http://planeta.clix.pt/n2cqr

I think the RF guys (I'm not one!) call an amplifier "linear" if the RF output amplitude follows the input drive amplitude. You can do this with a transistor that has very low quiescent bias. So "linear" does not mean "class A" to them. The key here is that an RF amp has a tuned output, whereas an audio amp doesn't. So the lopsided bias would normally produce intolerable distortion in something like audio, but the tuned output circuit changes the pulsey-looking collector/drain current back into a nice sine wave. So you don't need a lot of idle current, and the transistor really amplifies half of the incoming sine cycle.

Most mosfets are pretty nicely linear (ie, straight-line Ic/Vd curve) beyond the initial knee. You could get gobs of watts at zero standing current, but then you'd have some zero-clipping (no output) for the smallest drive levels, so a little idle current helps.

John

2000. Re: Doubling a reference frequency

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-27 15:20:39 UTC
From: et472@FreeNet.Carleton.CA
Message-ID: <cgnjg7ooc1@freenet9.carleton.ca>
Source record: 23782

Gary Schafer (gaschafer@comcast.net) writes:
> Check your counter specs. Some will take 1, 5 or 10 mhz time base
> without doing anything.
>
> 73
> Gary K4FMX
>
That's a good point. Given that they will all divide the timebase down
to a very low frequency, even if there's nothing specific one could likely tap
higher up on the divider chain.

Michael VE2BVW

> On Fri, 27 Aug 2004 07:32:37 GMT, mike@corn2.freeserve.co.uk (Mike W)
> wrote:
>
>>GM Folks,
>>My 10Mhz TCXO that I use for a frequency counter timebase has gone
>>toes up and I only have a 5Mhz one available to replace it. Can anyone
>>offer ideas to double the 5 Mhz TCXO keeping the M:S ratio accurate
>>enough for use with the frequency counter ?.
>>
>>The 5Mhz TCXO has an output of 2v P-P sinewave into 50R and I need TTL
>>level 50:50 M:S at 10Mhz.
>>
>>Thanks, Mike W
>

2001. Polishing and drilling marble slabs?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-27 15:45:27 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2p93dhFhjc9dU1@uni-berlin.de>
Source record: 23783

Assuming that one could obtain a slab of marble for the
base of a home grown bug key, is it an easy thing to
polish and to drill?

Does one use ordinary masonry drills?

Any undertakers out there?

2002. Re: Polishing and drilling marble slabs?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-27 16:26:56 UTC
From: mikea@mikea.ath.cx
Message-ID: <cgnncf$h69$1@puck.litech.org>
Source record: 23784

Airy R. Bean <me@privacy.net> wrote:
> Assuming that one could obtain a slab of marble for the
> base of a home grown bug key, is it an easy thing to
> polish and to drill?

> Does one use ordinary masonry drills?

> Any undertakers out there?

A quick Google search on "drill marble slab" came up with hits to
support my first idea for drilling the marble: use a copper tube
the diameter of the hole you want, in a drill press at _low_ speed,
with lots of (fairly coarse) abrasive powder, lots of water, and low
pressure on the drill bit. It's the same rig I use for drilling glass.

You will want a stream of running water so that the bit is kept cool
and lubricated, and the abrasive doesn't turn into a hard paste.
It will be messy; if you can put the slab in a cookie tin or
aluminum-foil pan, and run the excess out through a tube, that will
help. You also could build a modeling-clay dam around the hole.

It's almost impossible to over-lubricate, but it's really easy to
under-lubricate.

See http://www.shopsmartxpress.com/AmeriGls/AmrDefault.htm?M9a.htm
for some useful tips.

Polishing is easy: coarse-to-fine sandpaper, then buff with increasingly
fine powdered abrasive, up through white rouge or so. You have to get
all the old abrasive out of the polishing tool before you put the new,
finer abrasive in -- but you knew that.

Marble is rather soft, though quite abrasive, and so it's easy to
take off more than is necessary.

--
Mike Andrews
mikea@mikea.ath.cx
Tired old sysadmin

2003. Re: Doubling a reference frequency

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-27 17:06:18 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <b3pui0trnr6vek8hab06am2o4igetm489c@4ax.com>
Source record: 23785

On Fri, 27 Aug 2004 07:32:37 GMT, mike@corn2.freeserve.co.uk (Mike W) wrote:

>GM Folks,
>My 10Mhz TCXO that I use for a frequency counter timebase has gone
>toes up and I only have a 5Mhz one available to replace it. Can anyone
>offer ideas to double the 5 Mhz TCXO keeping the M:S ratio accurate
>enough for use with the frequency counter ?.

If you are just going to drive the gate of the frequency counter, the gate is typically 1 s, 100 ms, 10 ms etc. so the 5/10 MHz reference frequency is divided down a few times anyway, so why do you need the 50:50 mark:space ratio ?

The frequency divider chain will change on either on the leading or trailing edge of the clock (but not on both), so the gate time will be 1.000000 s regardless of the mark/space ratio, provided that the clock mark/space ratio remains constant.

Paul OH3LWR

2004. Re: DIODES: 1 KV AT 1.5A

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-27 18:15:25 UTC
From: Dale Parfitt <par@parelectronics.com>
Message-ID: <1TKXc.68$OQ6.12@trnddc09>
Source record: 23786

"Bill Turner" <noway@nohow.com> wrote in message
news:03fui0hrhrbc7vdntlff45rmqjabrfv2fv@4ax.com...
> On Fri, 27 Aug 2004 11:38:17 GMT, "f.dinger" <f.dinger@ntlworld.com>
> wrote:
>
> >If 1 kV is Peak Inverse Voltage (PIV) , these diodes are suitable for
(only)
> >350 Volt RMS max.
> >The potential seller could perhaps be more specific when making his
offer.
>
> ____
>
> Diodes have always been rated for PIV. It's up to the designer to apply
> them correctly. It's not the seller's job.
>
> --
> Bill, W6WRT
> QSLs via LoTW
> My response exactly- PIV is the way its done.

Dale W4OP

2005. Grid Dip Meter Circuit Found

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-27 18:27:46 UTC
From: haf47@juno.com
Message-ID: <f03bf94f.0408271027.5a7a1818@posting.google.com>
Source record: 23788

What looks like a very nice circuit is available at Harry's site.

http://w1.859.telia.com/~u85920178/use/gdo.htm

This site includes all the info you would need to contruct your own dip meter, including coil winding information.

Please forgive me if this has been noted before; this was the first site to come up on Google with the request of "Grid Dip Meter Circuit."

73 de WA2AFD

2006. Re: How to bias a MOSFET amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-27 18:28:39 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <a6vui05dnd0l6q9d21iod1hfv8o46iiekt@4ax.com>
Source record: 23787
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design

On Fri, 27 Aug 2004 08:07:02 -0700, John Larkin
<jjlarkin@highlandSNIPtechTHISnologyPLEASE.com> wrote:

>I think the RF guys (I'm not one!) call an amplifier "linear" if the
>RF output amplitude follows the input drive amplitude. You can do this
>with a transistor that has very low quiescent bias. So "linear" does
>not mean "class A" to them. The key here is that an RF amp has a tuned
>output, whereas an audio amp doesn't. So the lopsided bias would
>normally produce intolerable distortion in something like audio, but
>the tuned output circuit changes the pulsey-looking collector/drain
>current back into a nice sine wave. So you don't need a lot of idle
>current, and the transistor really amplifies half of the incoming sine
>cycle.
>
>Most mosfets are pretty nicely linear (ie, straight-line Ic/Vd curve)
>beyond the initial knee. You could get gobs of watts at zero standing
>current, but then you'd have some zero-clipping (no output) for the
>smallest drive levels, so a little idle current helps.

The only sensible way to do it AFAICS is to operate the MOSFET in
class C as a high speed switch and reconstruct the pulsed output into
a sine wave carrier by means of a suitable tuned circuit. I wouldn't
consider driving a MOSFET for RF use in any other way. The efficiency
should be pretty darned good, too.
--

"What is now proved was once only imagin'd." - William Blake, 1793.

2007. Re: How to bias a MOSFET amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-27 19:31:40 UTC
From: John Fields <jfields@austininstruments.com>
Message-ID: <vc1vi0lvdbhm98btvt46ljqng8mc0t3sqn@4ax.com>
Source record: 23789
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design

On Fri, 27 Aug 2004 19:28:39 +0100, Paul Burridge
<pb@notthisbit.osiris1.co.uk> wrote:

>On Fri, 27 Aug 2004 08:07:02 -0700, John Larkin
><jjlarkin@highlandSNIPtechTHISnologyPLEASE.com> wrote:
>
>>I think the RF guys (I'm not one!) call an amplifier "linear" if the
>>RF output amplitude follows the input drive amplitude. You can do this
>>with a transistor that has very low quiescent bias. So "linear" does
>>not mean "class A" to them. The key here is that an RF amp has a tuned
>>output, whereas an audio amp doesn't. So the lopsided bias would
>>normally produce intolerable distortion in something like audio, but
>>the tuned output circuit changes the pulsey-looking collector/drain
>>current back into a nice sine wave. So you don't need a lot of idle
>>current, and the transistor really amplifies half of the incoming sine
>>cycle.
>>
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>class C as a high speed switch and reconstruct the pulsed output into
>a sine wave carrier by means of a suitable tuned circuit. I wouldn't
>consider driving a MOSFET for RF use in any other way. The efficiency
>should be pretty darned good, too.

That doesn't make any sense to me.

Unless things have changed pretty drastically from how they were when
I was doing RF, class "C" was pretty much relegated to FM, so that
when you hit PTT, you banged the hell out of the final and filtered
the hell out of the carrier, which went to maximum amplitude and
stayed there, and the information was put on the constant amplitude
carrier by varying its frequency (or phase).

AM and SSB finals were _always_ linear amps and, like John said, the
amplitude of the carrier/sideband(s) followed the amplitude of the
modulating audio precisely.

Whether you use a MOSFET as a switch or as a resistive element
yielding a linearly varying output depends on how you tailor the
characteristics of the MOSFET to fit the application. After all,

there are lots of linear audio amps out there with MOSFET class A and class B finals, aren't there? So why shouldn't there be linear MOSFET RF amps as well?

--
John Fields

2008. HF MOBILE OF THE MONTH

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-27 19:49:13 UTC
From: Webmaster <webmaster@k2bj.com>
Message-ID: <ZeMXc.111$2s.68@twister.nyroc.rr.com>
Source record: 23790
Cross-posted to: rec.radio.amateur,rec.radio.amateur.boatanchors,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,uk.radio.amateur

Have a great setup you want to show off to the world? Submit now for next month's feature!

See details at:

http://www.k2bj.com

HF Mobile's Home on the Web

2009. Re: How to bias a MOSFET amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-27 20:00:56 UTC
From: John Larkin <jjlarkin@highSNIPlandTHIStechPLEASEnology.com>
Message-ID: <lb4vi0pb05uiaudmhhhl1tph40fepdogik@4ax.com>
Source record: 23791
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design

On Fri, 27 Aug 2004 19:28:39 +0100, Paul Burridge
<pb@notthisbit.osiris1.co.uk> wrote:

>On Fri, 27 Aug 2004 08:07:02 -0700, John Larkin
><jjlarkin@highlandSNIPtechTHISnologyPLEASE.com> wrote:
>
>>I think the RF guys (I'm not one!) call an amplifier "linear" if the
>>RF output amplitude follows the input drive amplitude. You can do this
>>with a transistor that has very low quiescent bias. So "linear" does
>>not mean "class A" to them. The key here is that an RF amp has a tuned
>>output, whereas an audio amp doesn't. So the lopsided bias would
>>normally produce intolerable distortion in something like audio, but
>>the tuned output circuit changes the pulsey-looking collector/drain
>>current back into a nice sine wave. So you don't need a lot of idle
>>current, and the transistor really amplifies half of the incoming sine
>>cycle.
>>
>>Most mosfets are pretty nicely linear (ie, straight-line Ic/Vd curve)
>>beyond the initial knee. You could get gobs of watts at zero standing
>>current, but then you'd have some zero-clipping (no output) for the
>>smallest drive levels, so a little idle current helps.
>
>The only sensible way to do it AFAICS is to operate the MOSFET in
>class C as a high speed switch and reconstruct the pulsed output into
>a sine wave carrier by means of a suitable tuned circuit. I wouldn't
>consider driving a MOSFET for RF use in any other way. The efficiency
>should be pretty darned good, too.

That means, to get a linear amp, the input signal has to be converted
to PWM gate drive. That's hard to do at high frequencies. At 300 MHz,
a power mosfet doesn't much look like a high-speed switch any more.

John

2010. Re: How to bias a MOSFET amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-27 22:39:07 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10ive0askf3r8c2@corp.supernews.com>
Source record: 23793
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design

John Larkin wrote:
> On 26 Aug 2004 22:40:36 -0700, meara.london@virgin.net (Bill N2CQR
> MOHBR) wrote:
>
>
>
>>Even if he were to be running this amp Class B (or close to it), I
>>can't see how he'd get 8 watts out with only 80 milliamps of standing
>>current
>>
>>I'm very new to this kind of analysis, and strongly suspect that I'm
>>misreading either SSDRA or Farhan's excellent article.
>>
>>Can someone please let me know where this apparent discrepency is
>>coming from.
>>
>>Thanks and 73
>>
>>Bill N2CQR M0HBR CU2JL
>>http://planeta.clix.pt/n2cqr
>
>
>
> I think the RF guys (I'm not one!) call an amplifier "linear" if the
> RF output amplitude follows the input drive amplitude. You can do this
> with a transistor that has very low quiescent bias. So "linear" does
> not mean "class A" to them. The key here is that an RF amp has a tuned
> output, whereas an audio amp doesn't. So the lopsided bias would
> normally produce intolerable distortion in something like audio, but
> the tuned output circuit changes the pulsey-looking collector/drain
> current back into a nice sine wave. So you don't need a lot of idle
> current, and the transistor really amplifies half of the incoming sine
> cycle.
>
> Most mosfets are pretty nicely linear (ie, straight-line Ic/Vd curve)
> beyond the initial knee. You could get gobs of watts at zero standing
> current, but then you'd have some zero-clipping (no output) for the
> smallest drive levels, so a little idle current helps.
>
> John
>
RF guys call the amplifier "linear" if the output, after filtering,
looks like a bigger version of the input -- basically the same criterion

as any other amplifier. The reason that you can get away with half as many active elements as with an audio amplifier is because if the modulation is narrow compared to the carrier each half of the waveform looks the same, so amplifying half of it then filtering reconstructs the half you didn't play with.

Class A amplifiers (and push-pull class AB or B amplifiers) are used in RF work, but mostly because they cut down on the harmonics that must be filtered out.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

2011. Re: How to bias a MOSFET amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-27 22:40:15 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10ive2aqkudn216@corp.supernews.com>
Source record: 23794
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design

Paul Burridge wrote:

> On Fri, 27 Aug 2004 08:07:02 -0700, John Larkin
> <jjlarkin@highlandSNIPtechTHISnologyPLEASE.com> wrote:
>
>
>>I think the RF guys (I'm not one!) call an amplifier "linear" if the
>>RF output amplitude follows the input drive amplitude. You can do this
>>with a transistor that has very low quiescent bias. So "linear" does
>>not mean "class A" to them. The key here is that an RF amp has a tuned
>>output, whereas an audio amp doesn't. So the lopsided bias would
>>normally produce intolerable distortion in something like audio, but
>>the tuned output circuit changes the pulsey-looking collector/drain
>>current back into a nice sine wave. So you don't need a lot of idle
>>current, and the transistor really amplifies half of the incoming sine
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>>smallest drive levels, so a little idle current helps.
>
>
> The only sensible way to do it AFAICS is to operate the MOSFET in
> class C as a high speed switch and reconstruct the pulsed output into
> a sine wave carrier by means of a suitable tuned circuit. I wouldn't
> consider driving a MOSFET for RF use in any other way. The efficiency
> should be pretty darned good, too.

Don't operate SSB much, do you?

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

2012. Re: How to bias a MOSFET amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-27 22:42:53 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10ive79bpgbhdeb@corp.supernews.com>
Source record: 23795
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design

John Fields wrote:

> On Fri, 27 Aug 2004 19:28:39 +0100, Paul Burridge
> <pb@notthisbit.osiris1.co.uk> wrote:
>
>
-- snip --
>>The only sensible way to do it AFAICS is to operate the MOSFET in
>>class C as a high speed switch and reconstruct the pulsed output into
>>a sine wave carrier by means of a suitable tuned circuit. I wouldn't
>>consider driving a MOSFET for RF use in any other way. The efficiency
>>should be pretty darned good, too.
>
>
> ---
> That doesn't make any sense to me.
>
> Unless things have changed pretty drastically from how they were when
> I was doing RF, class "C" was pretty much relegated to FM, so that
> when you hit PTT, you banged the hell out of the final and filtered
> the hell out of the carrier, which went to maximum amplitude and
> stayed there, and the information was put on the constant amplitude
> carrier by varying its frequency (or phase).
>
> AM and SSB finals were _always_ linear amps and, like John said, the
> _amplitude_ of the carrier/sideband(s) followed the amplitude of the
> modulating audio precisely.
>
> Whether you use a MOSFET as a switch or as a resistive element
> yielding a linearly varying output depends on how you tailor the
> characteristics of the MOSFET to fit the application. After all,
> there are lots of linear audio amps out there with MOSFET class A and
> class B finals, aren't there? So why shouldn't there be linear MOSFET
> RF amps as well?
>
Well, AM tube finals were often operated class C with the modulation
applied to the plate supply. This is harder to do with silicon because
the varying collector voltage modulates the collector-base capacitance
and causes weird phase shifts.

And there are linear MOSFET RF amps; they're necessary for single-sideband.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

2013. Re: How to bias a MOSFET amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-27 22:55:39 UTC
From: John Larkin <jjlarkin@highSNIPlandTHIStechPLEASEnology.com>
Message-ID: <tsevi0lq0537ug3pjaeenetldv71jqlb5u@4ax.com>
Source record: 23796
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design

On Fri, 27 Aug 2004 08:07:02 -0700, John Larkin
<jjlarkin@highlandSNIPtechTHISnologyPLEASE.com> wrote:

>Most mosfets are pretty nicely linear (ie, straight-line Ic/Vd curve)
^^^^^

Oops, I meant Id/Vg. But you all knew that.

John

2014. Re: How to bias a MOSFET amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-27 23:28:21 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <1rgvi0hffk555p4nl1403enjkgcd6rtvql@4ax.com>
Source record: 23697
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design

On Fri, 27 Aug 2004 13:00:56 -0700, John Larkin
<jjlarkin@highSNIPlandTHIStechPLEASEnology.com> wrote:

>That means, to get a linear amp, the input signal has to be converted
>to PWM gate drive. That's hard to do at high frequencies. At 300 MHz,
>a power mosfet doesn't much look like a high-speed switch any more.

Certainly not at that kind of frequency! But for the lower HF bands,
it's *perfectly* feasible.
--

"What is now proved was once only imagin'd." - William Blake, 1793.

2015. Re: How to bias a MOSFET amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-27 23:32:30 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <ssgvi0hi2cf76ko887iot69u5li4n4l6p1@4ax.com>
Source record: 23698
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design

On Fri, 27 Aug 2004 15:40:15 -0700, Tim Wescott
<tim@wescottnospamdesign.com> wrote:

>Don't operate SSB much, do you?

Nope. I'm a CWer. But the use of MOSFETs at RF for Anything other than
SSB (FM & AM in particular are ideally-suited) is as Kosher as Jim
Thompson's Saturday afternoon lunch of salt beef sandwiches with extra
dill.

--

"What is now proved was once only imagin'd." - William Blake, 1793.

2016. Re: How to bias a MOSFET amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-28 00:01:37 UTC
From: John Fields <jfields@austininstruments.com>
Message-ID: <s6ivi0l995bpmg1eptvc431vedmledq445@4ax.com>
Source record: 23699
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design

On Fri, 27 Aug 2004 15:42:53 -0700, Tim Wescott
<tim@wescottnospamdesign.com> wrote:

>Well, AM tube finals were often operated class C with the modulation
>applied to the plate supply.

Funny, I never considered plate modulation to be class C; that is if
we're talking about the same thing. What I'm thinking about is when
you key the transmitter on and it starts putting out a carrier at some
level, then you modulate the plate supply with audio so that at the
low peaks of the audio waveform the output of the TX is zero, but at
the output of the high peaks it's twice (?) what it was with no
modulation. Is that class C?

--
John Fields

2017. Re: Texas Balloon Launch Team (BLT) to fly ham radio and GPS this saturday 10am

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-28 00:25:34 UTC
From: Craig Davidson <nospam@earthlink.com>
Message-ID: <2iQXc.464$8d1.336@newsread2.news.pas.earthlink.net>
Source record: 23700
Cross-posted to: rec.radio.scanner,rec.radio.shortwave,rec.radio.amateur.space,rec.radio.amateur.homebrew,rec.radio.amateur.equipment,rec.radio.amateur.digital.misc

The balloon was successfully launched last Saturday. It reached 83,000 feet over Texas before the balloon burst and the electronics payload parachuted back to earth. Amateur radio operators were heard talking through the cross band repeater from Galveston, Houston, Dallas, Austin, and Rio Grande. Recovery was as simple as entering the last broadcast GPS coordinates as a waypoint into a hand held GPS receiver and following the arrow to the landing site. Conveniently the package landed only a few hundred feet from a paved road.

Watch for future balloon launch announcements at:

Here are the photos from BLT-20

http://www.qsl.net/w5acm/b204821b.html

Here are some photos of the integration meeting

http://www.qsl.net/w5acm/b20_4818.html

Here are photos of the previous flight BLT-19

http://www.qsl.net/w5acm/b19_3823f.html

Here are the photos of the previous flight BLT-18

Launch http://www.qsl.net/w5acm/b18_1825.html

Flight http://www.qsl.net/w5acm/b18_1826.html

Recovery http://www.qsl.net/w5acm/b18_1827.html

>
>
>
>Craig Davidson wrote in message ...
>>
>>It's time again for the Texas Balloon Launch Team (BLT) to fly their 20th
>>mission.
>>
>>The Primary GPS APRS transmitter is on 440.950 Mhz FM
>>
>>The Backup GPS system transmits on: 445.925 MHz FM
>>
>>There is also a Crossband voice Repeater on the balloon which
>>transmits on 446.000 MHz FM

>>
>>In addition there will be a Live television Camera transmitting its signal
>>on
>>1255 MHz FM
>>
>>The balloon will take about one hour to rise to 100,000 feet where the
>>balloon explodes and the electronics payload parachutes back to earth for
>>another hour. You should be able to hear the balloon transmitting from
over
>>300 miles away.
>>
>>They will launch from the same airport in Wharton Texas
>>(http://www.airnav.com/airport/5R5) on Saturday morning at 10am and
will
>>use most of the same equipment as BLT 19 last year. If the frequencies or
>>launch site change then I will post another message by Saturday morning.
>>The airnav web page shown above has a handy distance calculator where you
>>can enter the code for your local airport and it will tell you the
distance
>>from wharton.
>>
>>The GPS coordinates transmitted from the balloon are used to locate the
>>landing site.
>>
>>The electronics package is also fitted with a Piezoelectric beeper to help
>>the recovery
>>crew find the payload in "that last 100 feet of tall grass".
>>
>>See the photos from previous missions at:
>> http://www.qsl.net/w5acm/b18_1825.html
>> http://www.qsl.net/w5acm/b18_1826.html
>> http://www.qsl.net/w5acm/b18_1827.html
>> http://www.qsl.net/w5acm/b19.html
>>
>>For all the non hams out there:
>>
>>The GPS data is transmitted in APRS format.
>>
>>To learn more about APRS click here:
>>http://www.tapr.org/tapr/html/sigf.html
>>http://web.usna.navy.mil/~bruninga/aprs.html
>>
>>Receivers are available from Ham radio stores such as Amateur Electronic
>>Supply http://www.aesham.com/ or Ham Radio Outlet
>>http://www.hamradio.com/ Or you could look on Ebay for a 440 MHz FM
>>receiver. You can also get a police scanner from Radio Shack to do the
>job.
>>Make sure it receives the proper frequency.
>>
>>You also need an antenna. I recommend the arrow antenna to get started:

>>
>>http://www.arrowantennas.com/146-437.html
>>
>>You will also need a packet modem to decode the APRS audio tones. The
>>Kantronics KPC3 is an example http://www.kantronics.com/kpc3+.htm These
>>units plug into the speaker jack of the receiver and also to the RS232
>>serial port of your computer.
>>
>>Or you could try to decode the audio tones with software and your sound
>card
>>instead of buying the modem above. Check out these web sites for packet
>>software:
>>
>>http://www.qsl.net/soundcardpacket/
>>http://packetradio.com/rascalmkv.htm
>>http://www.elcom.gr/sv2agw/agwsc.htm
>>

GPS receivers for tracking the balloon can be purchased at: www.tvnav.com

I recommend Garmin consumer grade GPS receivers:

http://www.garmin.com/outdoor/products.html#mapping

2018. Re: How to bias a MOSFET amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-28 00:43:34 UTC
From: John Larkin <jjlarkin@highSNIPlandTHIStechPLEASEnology.com>
Message-ID: <27lvi0dg1dvsgk0ep60g5892mhm5562lud@4ax.com>
Source record: 23701
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design

On Sat, 28 Aug 2004 00:28:21 +0100, Paul Burridge
<pb@notthisbit.osiris1.co.uk> wrote:

>On Fri, 27 Aug 2004 13:00:56 -0700, John Larkin
><jjlarkin@highSNIPlandTHIStechPLEASEnology.com> wrote:
>
>>That means, to get a linear amp, the input signal has to be converted
>>to PWM gate drive. That's hard to do at high frequencies. At 300 MHz,
>>a power mosfet doesn't much look like a high-speed switch any more.
>
>Certainly not at that kind of frequency! But for the lower HF bands,
>it's *perfectly* feasible.

Have you actually built a class C linear RF power amp? Tell us how it
works.

John

2019. Re: How to bias a MOSFET amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-28 01:07:50 UTC
From: Active8 <reply2group@ndbbm.net>
Message-ID: <13wx5owmpxilc$.dlg@news.individual.net>
Source record: 23702
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design

On Fri, 27 Aug 2004 19:01:37 -0500, John Fields wrote:

> On Fri, 27 Aug 2004 15:42:53 -0700, Tim Wescott
> <tim@wescottnospamdesign.com> wrote:
>
>>Well, AM tube finals were often operated class C with the modulation
>>applied to the plate supply.
>
> ---
> Funny, I never considered plate modulation to be class C; that is if
> we're talking about the same thing. What I'm thinking about is when
> you key the transmitter on and it starts putting out a carrier at some
> level, then you modulate the plate supply with audio so that at the
> low peaks of the audio waveform the output of the TX is zero, but at
> the output of the high peaks it's twice (?) what it was with no
> modulation. Is that class C?

It can be. Depends on the biasing. It *is* AM, however.

Class C just means that the conduction angle is less than 180 deg. I recall seeing it specified as a certain amount less than 180 once, but I don't recall how much. The idea is to give the output tank enough kick to get it to swing.

So you amplify the carrier with class C and modulate the plate. I've seen projects which do this with bipolars. One that comes to mind is an old Radio Electronics article for a uWave ATV commo system using gunplexers, but that can't be right since gunnplexers are modulated at the gunnplexer. I think it was another ATV project. If I ever find that old article I'll letcha know.
--
Best Regards,
Mike

2020. Re: How to bias a MOSFET amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-28 01:09:43 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10ivmqkhu7e3mee@corp.supernews.com>
Source record: 23704
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design

John Fields wrote:
> On Fri, 27 Aug 2004 15:42:53 -0700, Tim Wescott
> <tim@wescottnospamdesign.com> wrote:
>
>
>
>>Well, AM tube finals were often operated class C with the modulation
>>applied to the plate supply.
>
>
> ---
> Funny, I never considered plate modulation to be class C; that is if
> we're talking about the same thing. What I'm thinking about is when
> you key the transmitter on and it starts putting out a carrier at some
> level, then you modulate the plate supply with audio so that at the
> low peaks of the audio waveform the output of the TX is zero, but at
> the output of the high peaks it's twice (?) what it was with no
> modulation. Is that class C?
>
In a tube setup the RF amplifier should be operating in class C and the power audio amplifier should provide nice linear modulation to the RF amp's plate supply. In fact* one needs to provide sufficient excitation to the RF final, too, lest the thing go into a current limited mode on the modulation peaks.

Presumably you could make a REALLY EFFICIENT setup with transistors by operating the RF final in class E, but you get that pesky capacitance problem back...

* So I understand, I'm just a tube wannabe.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

2021. Re: How to bias a MOSFET amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-28 01:10:58 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10ivmsu6030nd33@corp.supernews.com>
Source record: 23703
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design

Paul Burridge wrote:

> On Fri, 27 Aug 2004 15:40:15 -0700, Tim Wescott
> <tim@wescottnospamdesign.com> wrote:
>
>
>>Don't operate SSB much, do you?
>
>
> Nope. I'm a CWer. But the use of MOSFETs at RF for Anything other than
> SSB (FM & AM in particular are ideally-suited) is as Kosher as Jim
> Thompson's Saturday afternoon lunch of salt beef sandwiches with extra
> dill.
>
Motorola used to list RF MOSFETs for linear amplifier use. I don't know
if they went to On semi or FreeFall.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

2022. Re: How to bias a MOSFET amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-28 01:23:19 UTC
From: Active8 <reply2group@ndbbm.net>
Message-ID: <183f8yphuybbt$.dlg@news.individual.net>
Source record: 23705
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design

On Fri, 27 Aug 2004 18:09:43 -0700, Tim Wescott wrote:

> John Fields wrote:
>> On Fri, 27 Aug 2004 15:42:53 -0700, Tim Wescott
>> <tim@wescottnospamdesign.com> wrote:
>>
>>>Well, AM tube finals were often operated class C with the modulation
>>>applied to the plate supply.
>>
>> ---
>> Funny, I never considered plate modulation to be class C; that is if
>> we're talking about the same thing. What I'm thinking about is when
>> you key the transmitter on and it starts putting out a carrier at some
>> level, then you modulate the plate supply with audio so that at the
>> low peaks of the audio waveform the output of the TX is zero, but at
>> the output of the high peaks it's twice (?) what it was with no
>> modulation. Is that class C?
>>
> In a tube setup the RF amplifier should be operating in class C and the
> power audio amplifier should provide nice linear modulation to the RF
> amp's plate supply. In fact* one needs to provide sufficient excitation
> to the RF final, too, lest the thing go into a current limited mode on
> the modulation peaks.
>
> Presumably you could make a REALLY EFFICIENT setup with transistors by
> operating the RF final in class E, but you get that pesky capacitance
> problem back...
>
> * So I understand, I'm just a tube wannabe.

I don't know how well it works, but I saw a class E schem using a
section of line to take out the odd harmonics.
--
Best Regards,
Mike

2023. Re: How to bias a MOSFET amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-28 01:30:42 UTC
From: SioL <Sio_spam_L@same.net>
Message-ID: <LeRXc.1968$F6.400010@news.siol.net>
Source record: 23707
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design

"Paul Burridge" <pb@notthisbit.osiris1.co.uk> wrote in message
news:1rgvi0hffk555p4nl1403enjkgcd6rtvql@4ax.com...
> On Fri, 27 Aug 2004 13:00:56 -0700, John Larkin
> <jjlarkin@highSNIPlandTHIStechPLEASEnology.com> wrote:
>
>>That means, to get a linear amp, the input signal has to be converted
>>to PWM gate drive. That's hard to do at high frequencies. At 300 MHz,
>>a power mosfet doesn't much look like a high-speed switch any more.
>
> Certainly not at that kind of frequency! But for the lower HF bands,
> it's *perfectly* feasible.

You should know.

SioL

2024. looking for schematic making software

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-28 01:35:33 UTC
From: bobinphx <rbelisle1@cox.net>
Message-ID: <GcRXc.176126$Oi.155621@fed1read04>
Source record: 23706

To All,
Is there any software that will help ease the frustration of drawing a schematic by hand from an existing radio????

Bob in phx

2025. Re: Polishing and drilling marble slabs?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-28 03:00:12 UTC
From: w4pqw@cox.net
Message-ID: <84b5ffd4.0408271900.51aaff5c@posting.google.com>
Source record: 23708

"Airy R. Bean" <me@privacy.net> wrote in message news:<2p93dhFhjc9dU1@uni-berlin.de>...
> Assuming that one could obtain a slab of marble for the
> base of a home grown bug key, is it an easy thing to
> polish and to drill?
>
> Does one use ordinary masonry drills?
>
> Any undertakers out there?

If you will stop by any trophy shop you can get all sorts of marble
,color,shape size etc. quite reasonable too. may already have holes
that you can use. Harold W4PQW

2026. Re: How to bias a MOSFET amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-28 03:12:44 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <GPKdnV3u4eS0ZbLcRVn-uQ@comcast.com>
Source record: 23709
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design

"Tim Wescott" <tim@wescottnospamdesign.com> wrote in message
news:10ivmqkhu7e3mee@corp.supernews.com...
> John Fields wrote:
> > On Fri, 27 Aug 2004 15:42:53 -0700, Tim Wescott
> > <tim@wescottnospamdesign.com> wrote:
>
.....
.....
> Presumably you could make a REALLY EFFICIENT setup with transistors by
> operating the RF final in class E, but you get that pesky capacitance
> problem back...

You are only scratching the surface. Check out the Harris DX series of high power AM transmitters. It will blow your mind away. Basically, the instantanous RF output power is synthesized by turning on 0 to 64 fairly low power (~KW) modules. I don't know what the sampling frequency is, but probably >20 KHz.. All modules are driven by a square wave signal at the carrier frequency. There is no modulator.

Tam

>
> * So I understand, I'm just a tube wannabe.
>
> --
>
> Tim Wescott
> Wescott Design Services
> http://www.wescottdesign.com

2027. Re: How to bias a MOSFET amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-28 03:16:16 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <WoSdnQXG6Y9gZbLcRVn-qA@comcast.com>
Source record: 23710
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design

"Tim Wescott" <tim@wescottnospamdesign.com> wrote in message
news:10ivmsu6030nd33@corp.supernews.com...
> Paul Burridge wrote:
>
> > On Fri, 27 Aug 2004 15:40:15 -0700, Tim Wescott
> > <tim@wescottnospamdesign.com> wrote:
> >
> >
> >>Don't operate SSB much, do you?
> >
> >
> > Nope. I'm a CWer. But the use of MOSFETs at RF for Anything other than
> > SSB (FM & AM in particular are ideally-suited) is as Kosher as Jim
> > Thompson's Saturday afternoon lunch of salt beef sandwiches with extra
> > dill.
> >
> Motorola used to list RF MOSFETs for linear amplifier use. I don't know
> if they went to On semi or FreeFall.
>

I believe Tyco. Yes, that same Tyco.

Tam
> --
>
> Tim Wescott
> Wescott Design Services
> http://www.wescottdesign.com

2028. Re: Polishing and drilling marble slabs?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-28 05:37:48 UTC
From: john jardine <john@jjdesigns.fsnet.co.uk>
Message-ID: <cgo8nc$f05$1@newsg1.svr.pol.co.uk>
Source record: 23792

"Airy R. Bean" <me@privacy.net> wrote in message
news:2p93dhFhjc9dU1@uni-berlin.de...
> Assuming that one could obtain a slab of marble for the
> base of a home grown bug key, is it an easy thing to
> polish and to drill?
>
> Does one use ordinary masonry drills?
>
> Any undertakers out there?
>
>
An ordinary masonry drill is perfect.It goes through it like cheese. The material is basically quite soft and can be easily shaped with an angle grinder and a cheap diamond cutting disc (those for cutting bricks, flags etc) . For final levelling use various grades of car 'wet-n-dry' (Silicon Carbide paper) and finish using Silicon Carbide (or even diamond!) 'lapping paste' slurries.
(nb. for rust stains soak in oxalic acid)
regards
john

2029. Re: Polishing and drilling marble slabs?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-28 06:09:24 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2pamo7FiqhsrU1@uni-berlin.de>
Source record: 23711

Good idea!

<w4pqw@cox.net> wrote in message
news:84b5ffd4.0408271900.51aaff5c@posting.google.com...
> "Airy R. Bean" <me@privacy.net> wrote in message
news:<2p93dhFhjc9dU1@uni-berlin.de>...
> > Assuming that one could obtain a slab of marble for the
> > base of a home grown bug key, is it an easy thing to
> > polish and to drill?
> > Does one use ordinary masonry drills?
> > Any undertakers out there?
>
> If you will stop by any trophy shop you can get all sorts of marble
> ,color,shape size etc. quite reasonable too. may already have holes
> that you can use. Harold W4PQW

2030. Re: Polishing and drilling marble slabs?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-28 06:18:42 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2pamo7FiqhsrU2@uni-berlin.de>
Source record: 23712

OK - I'll try that out on some off-cuts, assuming that such
things are available.

Otherwise - I'm collecting various bits of metal to make up a
bug key but am distracted by vertical antenna and its ATU.

I am trying to conceive of a minimal switching scheme to accommodate
the 10 ATU configurations discovered so far....
Straight through
Series C
Series L
Series C-L
"L" network with C on TX side
"L" network with C on ant side
"PI" network
"T" network
Parallel tank, series fed
Parallel tank, parallel fed

"john jardine" <john@jjdesigns.fsnet.co.uk> wrote in message
news:cgo8nc$f05$1@newsg1.svr.pol.co.uk...
> "Airy R. Bean" <me@privacy.net> wrote in message
> news:2p93dhFhjc9dU1@uni-berlin.de...
> > Assuming that one could obtain a slab of marble for the
> > base of a home grown bug key, is it an easy thing to
> > polish and to drill?
> > Does one use ordinary masonry drills?
> > Any undertakers out there?
> An ordinary masonry drill is perfect.It goes through it like cheese. The
> material is basically quite soft and can be easily shaped with an angle
> grinder and a cheap diamond cutting disc (those for cutting bricks, flags
> etc) . For final levelling use various grades of car 'wet-n-dry'
(Silicon
> Carbide paper) and finish using Silicon Carbide (or even diamond!)
'lapping
> paste' slurries.
> (nb. for rust stains soak in oxalic acid)
> regards
> john

2031. Re: Polishing and drilling marble slabs?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-28 06:24:31 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2pan9aFif0jdU1@uni-berlin.de>
Source record: 23713

Presumably also, therefore, with the miniature grinding
wheels of the "Dremel" style?

"john jardine" <john@jjdesigns.fsnet.co.uk> wrote in message
> ...material is basically quite soft and can be easily shaped with an angle
> grinder....

2032. Re: How to bias a MOSFET amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-28 09:23:40 UTC
From: Rich Grise <null@example.net>
Message-ID: <waYXc.214$XK5.198@trnddc02>
Source record: 23714
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design

John Fields wrote:

> On Fri, 27 Aug 2004 15:42:53 -0700, Tim Wescott
> <tim@wescottnospamdesign.com> wrote:
>
>
>>Well, AM tube finals were often operated class C with the modulation
>>applied to the plate supply.
>
> ---
> Funny, I never considered plate modulation to be class C; that is if
> we're talking about the same thing. What I'm thinking about is when
> you key the transmitter on and it starts putting out a carrier at some
> level, then you modulate the plate supply with audio so that at the
> low peaks of the audio waveform the output of the TX is zero, but at
> the output of the high peaks it's twice (?) what it was with no
> modulation. Is that class C?
>
No, that's plate modulation. Class C is when the active element
conducts for less than 180 degrees of the cycle. A lot of times
when they plate modulate, they'll also apply the modulation to the
screen grid or even the control grid or previous stage. :-)

Cheers!
Rich

2033. Re: How to bias a MOSFET amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-28 09:31:53 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <47k0j05i66i7597518b72tsbnpvek8kmtl@4ax.com>
Source record: 23715
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design

On Fri, 27 Aug 2004 19:01:37 -0500, John Fields
<jfields@austininstruments.com> wrote:

>On Fri, 27 Aug 2004 15:42:53 -0700, Tim Wescott
><tim@wescottnospamdesign.com> wrote:
>
>
>>Well, AM tube finals were often operated class C with the modulation
>>applied to the plate supply.
>
>---
>Funny, I never considered plate modulation to be class C; that is if
>we're talking about the same thing. What I'm thinking about is when
>you key the transmitter on and it starts putting out a carrier at some
>level, then you modulate the plate supply with audio so that at the
>low peaks of the audio waveform the output of the TX is zero, but at
>the output of the high peaks it's twice (?) what it was with no
>modulation. Is that class C?

As you presumably know, that's just 100% AM.

--

"What is now proved was once only imagin'd." - William Blake, 1793.

2034. Re: How to bias a MOSFET amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-28 09:36:21 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <nbk0j0tkn4frucfi9qa4m0223ifogaj6sb@4ax.com>
Source record: 23716
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design

On Fri, 27 Aug 2004 17:43:34 -0700, John Larkin
<jjlarkin@highSNIPlandTHIStechPLEASEnology.com> wrote:

>Have you actually built a class C linear RF power amp? Tell us how it
>works.

It depends on how you define "linear" basically. But the term is a
total misnomer in RF amp terminology and very misleading. I can't
understand how it got there. :-/
--

"What is now proved was once only imagin'd." - William Blake, 1793.

2035. Re: How to bias a MOSFET amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-28 09:56:03 UTC
From: Ian Jackson <REMOVE-THIS-BIT@g3ohx.demon.co.uk>
Message-ID: <vlebyhAzaFMBFwLa@g3ohx.demon.co.uk>
Source record: 23717
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design

In message <nbk0j0tkn4frucfi9qa4m0223ifogaj6sb@4ax.com>, Paul Burridge
<pb@notthisbit.osiris1.co.uk> writes
>On Fri, 27 Aug 2004 17:43:34 -0700, John Larkin
><jjlarkin@highSNIPlandTHIStechPLEASEnology.com> wrote:
>
>>Have you actually built a class C linear RF power amp? Tell us how it
>>works.
>
>It depends on how you define "linear" basically. But the term is a
>total misnomer in RF amp terminology and very misleading. I can't
>understand how it got there. :-/

Don't forget that you cannot really modulate a 'linear' amplifier by
varying the supply rail (which is what 'plate & screen' mod does). The
modulated stage has to be non-linear (eg Class C) where the power output
varies as the square of the supply volts. If the PA was biassed in Class
A, there wouldn't be any modulation.
Ian.
--

2036. Re: How to bias a MOSFET amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-28 11:26:19 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <dpq0j0ta846bgqf9ua3sodul2nq69rklpe@4ax.com>
Source record: 23718

On Sat, 28 Aug 2004 09:23:40 GMT, Rich Grise <null@example.net> wrote:

>No, that's plate modulation. Class C is when the active element
>conducts for less than 180 degrees of the cycle. A lot of times
>when they plate modulate, they'll also apply the modulation to the
>screen grid or even the control grid or previous stage. :-)

Can't blame 'em! Given that the audio power level needs to be
commensurate with the transmitter's RF power output level, using final
plate modulation with a 500KW TX might be a more than a little
inefficient. :-)

--

"What is now proved was once only imagin'd." - William Blake, 1793.

2037. Re: How to bias a MOSFET amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-28 11:29:14 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <41r0j0t3ng0hq8b5oqcu5hh52hi98tkiok@4ax.com>
Source record: 23719
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design

On Sat, 28 Aug 2004 10:56:03 +0100, Ian Jackson
<REMOVE-THIS-BIT@g3ohx.demon.co.uk> wrote:

>Don't forget that you cannot really modulate a 'linear' amplifier by
>varying the supply rail (which is what 'plate & screen' mod does). The
>modulated stage has to be non-linear (eg Class C) where the power output
>varies as the square of the supply volts. If the PA was biassed in Class
>A, there wouldn't be any modulation.

Certainly there would be no *amplitude* modulation, but that doesn't
preclude FM and various other schemes.
--

"What is now proved was once only imagin'd." - William Blake, 1793.

2038. Re: Texas Balloon Launch Team (BLT) to fly ham radio and GPS this saturday 10am

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-28 12:33:41 UTC
From: K4SQR@juno.com
Message-ID: <7c8be5b4.0408280433.8a6cc53@posting.google.com>
Source record: 23720
Cross-posted to: rec.radio.scanner,rec.radio.shortwave,rec.radio.amateur.space,rec.radio.amateur.homebrew,rec.radio.amateur.equipment,rec.radio.amateur.digital.misc

Congratulations Craig and group;
Very interesting reading!! Photos simply out of this world.
Good luck in future endeavors,
73,
Jim K4SQR

"Craig Davidson" <nospam@earthlink.com> wrote in message
news:<2iQXc.464$8d1.336@newsread2.news.pas.earthlink.net>...
> The balloon was successfully launched last Saturday. It reached 83,000 feet
> over Texas before the balloon burst and the electronics payload parachuted
> back to earth. Amateur radio operators were heard talking through the cross
> band repeater from Galveston, Houston, Dallas, Austin, and Rio Grande.
> Recovery was as simple as entering the last broadcast GPS coordinates as a
> waypoint into a hand held GPS receiver and following the arrow to the
> landing site. Conveniently the package landed only a few hundred feet from
> a paved road.
>
> Watch for future balloon launch announcements at:
>
> Here are the photos from BLT-20
>
> http://www.qsl.net/w5acm/b204821b.html
>
> Here are some photos of the integration meeting
>
> http://www.qsl.net/w5acm/b20_4818.html
>
>
>
> Here are photos of the previous flight BLT-19
>
> http://www.qsl.net/w5acm/b19_3823f.html
>
>
>
> Here are the photos of the previous flight BLT-18
>
> Launch http://www.qsl.net/w5acm/b18_1825.html
>
> Flight http://www.qsl.net/w5acm/b18_1826.html
>

> Recovery http://www.qsl.net/w5acm/b18_1827.html
>
>
> >
> >
> >
> >Craig Davidson wrote in message ...
> >>
> >>It's time again for the Texas Balloon Launch Team (BLT) to fly their 20th
> >>mission.
> >>
> >>The Primary GPS APRS transmitter is on 440.950 Mhz FM
> >>
> >>The Backup GPS system transmits on: 445.925 MHz FM
> >>
> >>There is also a Crossband voice Repeater on the balloon which
> >>transmits on 446.000 MHz FM
> >>
> >>In addition there will be a Live television Camera transmitting its signal
> >>on
> >>1255 MHz FM
> >>
> >>The balloon will take about one hour to rise to 100,000 feet where the
> >>balloon explodes and the electronics payload parachutes back to earth for
> >>another hour. You should be able to hear the balloon transmitting from
> over
> >>300 miles away.
> >>
> >>They will launch from the same airport in Wharton Texas
> >>(http://www.airnav.com/airport/5R5) on Saturday morning at 10am and
> will
> >>use most of the same equipment as BLT 19 last year. If the frequencies or
> >>launch site change then I will post another message by Saturday morning.
> >>The airnav web page shown above has a handy distance calculator where you
> >>can enter the code for your local airport and it will tell you the
> distance
> >>from wharton.
> >>
> >>The GPS coordinates transmitted from the balloon are used to locate the
> >>landing site.
> >>
> >>The electronics package is also fitted with a Piezoelectric beeper to help
> >>the recovery
> >>crew find the payload in "that last 100 feet of tall grass".
> >>
> >>See the photos from previous missions at:
> >> http://www.qsl.net/w5acm/b18_1825.html
> >> http://www.qsl.net/w5acm/b18_1826.html
> >> http://www.qsl.net/w5acm/b18_1827.html
> >> http://www.qsl.net/w5acm/b19.html

> >>
> >>For all the non hams out there:
> >>
> >>The GPS data is transmitted in APRS format.
> >>
> >>To learn more about APRS click here:
> >>http://www.tapr.org/tapr/html/sigf.html
> >>http://web.usna.navy.mil/~bruninga/aprs.html
> >>
> >>Receivers are available from Ham radio stores such as Amateur Electronic
> >>Supply http://www.aesham.com/ or Ham Radio Outlet
> >>http://www.hamradio.com/ Or you could look on Ebay for a 440 MHz FM
> >>receiver. You can also get a police scanner from Radio Shack to do the
> job.
> >>Make sure it receives the proper frequency.
> >>
> >>You also need an antenna. I recommend the arrow antenna to get started:
> >>
> >>http://www.arrowantennas.com/146-437.html
> >>
> >>You will also need a packet modem to decode the APRS audio tones. The
> >>Kantronics KPC3 is an example http://www.kantronics.com/kpc3+.htm These
> >>units plug into the speaker jack of the receiver and also to the RS232
> >>serial port of your computer.
> >>
> >>Or you could try to decode the audio tones with software and your sound
> card
> >>instead of buying the modem above. Check out these web sites for packet
> >>software:
> >>
> >>http://www.qsl.net/soundcardpacket/
> >>http://packetradio.com/rascalmkv.htm
> >>http://www.elcom.gr/sv2agw/agwsc.htm
> >>
>
> GPS receivers for tracking the balloon can be purchased at: www.tvnav.com
>
> I recommend Garmin consumer grade GPS receivers:
>
> http://www.garmin.com/outdoor/products.html#mapping

2039. Re: Doubling a reference frequency

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-28 14:37:33 UTC
From: Jim Adney <jadney@vwtype3.org>
Message-ID: <r050j010vf93nbeor4lbhtlhdjan787efb@4ax.com>
Source record: 23723

On Fri, 27 Aug 2004 07:32:37 GMT mike@corn2.freeserve.co.uk (Mike W)
wrote:

>GM Folks,
>My 10Mhz TCXO that I use for a frequency counter timebase has gone
>toes up and I only have a 5Mhz one available to replace it. Can anyone
>offer ideas to double the 5 Mhz TCXO keeping the M:S ratio accurate
>enough for use with the frequency counter ?.

What is the TCXO and what is wrong with it? It may be simple to just
fix it.

-

Jim Adney jadney@vwtype3.org
Madison, WI 53711 USA

2040. Re: looking for schematic making software

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-28 14:43:35 UTC
From: Heam Locea <anothere@yaboo.com>
Message-ID: <2pbl0cFj2l2dU1@uni-berlin.de>
Source record: 23724

"bobinphx" <rbelisle1@cox.net> wrote in message
news:GcRXc.176126$Oi.155621@fed1read04...
> To All,
> Is there any software that will help ease the frustration of drawing a
> schematic by hand from an existing radio????
>
> Bob in phx
>
>

Many draw it out first by hand on paper, instead of using SW as it is
easier.
You have to enter in all the nodes and connections anyway.
Make all corrections on paper first, then put in the final. several programs
out there.

2041. Re: Polishing and drilling marble slabs?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-28 14:44:13 UTC
From: Al <no.spam@wanted.com>
Message-ID: <no.spam-85CEFD.10442128082004@news.verizon.net>
Source record: 23722

In article <2pamo7FiqhsrU1@uni-berlin.de>,
"Airy R. Bean" <me@privacy.net> wrote:

> Good idea!
>
> <w4pqw@cox.net> wrote in message
> news:84b5ffd4.0408271900.51aaff5c@posting.google.com...
> > "Airy R. Bean" <me@privacy.net> wrote in message
> news:<2p93dhFhjc9dU1@uni-berlin.de>...
> > > Assuming that one could obtain a slab of marble for the
> > > base of a home grown bug key, is it an easy thing to
> > > polish and to drill?
> > > Does one use ordinary masonry drills?
> > > Any undertakers out there?
> >
> > If you will stop by any trophy shop you can get all sorts of marble
> > ,color,shape size etc. quite reasonable too. may already have holes
> > that you can use. Harold W4PQW
>
>

I get my used marble from our town's recycling center. You'd be
surprised how many "trophies" are thrown out. I find the side I want and
disassemble it. I even use them for heat blocks when I am doing some
heavy duty soldering. If they crack, I toss them. And...the price is
right!

Al

2042. Re: How to bias a MOSFET amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-28 14:45:19 UTC
From: John Fields <jfields@austininstruments.com>
Message-ID: <v201j0h5bln1coubm4nvum3dds1rbp9nmj@4ax.com>
Source record: 23721
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design

On Sat, 28 Aug 2004 10:36:21 +0100, Paul Burridge
<pb@notthisbit.osiris1.co.uk> wrote:

>On Fri, 27 Aug 2004 17:43:34 -0700, John Larkin
><jjlarkin@highSNIPlandTHIStechPLEASEnology.com> wrote:
>
>>Have you actually built a class C linear RF power amp? Tell us how it
>>works.
>
>It depends on how you define "linear" basically. But the term is a
>total misnomer in RF amp terminology and very misleading. I can't
>understand how it got there. :-/

Let's say that you have an audio amp with an input resistance of 1000
ohms and that, with a 1V input, it puts 10 volts across an 8 ohm load.

That's a voltage gain of

Vout 10V
Av = 20 log ------ dB = 20log ---- dB = 20dB
V in 1V

and a power gain of

Pout 12.5W
Aw = 10 log ------- dB = 10log -------- dB ~ 41dB
Pin 0.001W

Now let's say that you up the input voltage to 2V and that the output
voltage goes to 20V. That's still a voltage gain of 20dB and a power
gain 41dB.

Finally, let's say that no matter what voltage you apply to the
input,(up to some reasonable limit) the output voltage is always 10
times higher. That's a linear amplifier.

It's no different with RF.

Let's say, for example, that we have an RF amp with a 50 ohm input and
output impedance and that with a 1 watt input it puts out 10 watts
That is, it has 10 dB of power gain. If it's a linear amplifier and
we exercise its input according to the following table, the
relationships given in the table will be true. If it isn't, they
won't be.

```
Pin Pout Aw Ein Eout Av
W->50R W->50R dB V->50R V->50R dB
----------------------------------------
1 10 10 7.07 22.4 10
2 20 10 10.0 31.6 10
3 30 10 12.3 31.6 10
4 40 10 14.1 44.7 10
5 50 10 15.8 50.0 10
6 60 10 17.3 54.8 10
7 70 10 18.7 59.2 10
8 80 10 20.0 63.2 10
9 90 10 21.2 67.1 10
10 100 10 22.4 70.7 10
```

So, that should take the mystery out of why it's called a "linear amplifier" :-)

--
John Fields

2043. Re: looking for schematic making software

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-28 15:26:30 UTC
From: John LeRoy <w4jkl@qsl.net>
Message-ID: <ju1Yc.30119$N11.7539@bignews5.bellsouth.net>
Source record: 23725

Bob, I've had good luck with both TubPad from Gary WD4NKA at
http://www.qsl.net/wd4nka/TEXTS/Tubepadf.html
and also ExpressSCH at www.expresspcb.com, which I use mostly for solid
state stuff.
73,
John W4JKL

2044. Re: How to bias a MOSFET amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-28 15:43:21 UTC
From: John Larkin <jjlarkin@highlandSNIPtechTHISnologyPLEASE.com>
Message-ID: <8u91j0dd0b8fg98ljsdp5tlg8pp9vm76bl@4ax.com>
Source record: 23726
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design

On Sat, 28 Aug 2004 10:36:21 +0100, Paul Burridge
<pb@notthisbit.osiris1.co.uk> wrote:

>On Fri, 27 Aug 2004 17:43:34 -0700, John Larkin
><jjlarkin@highSNIPlandTHIStechPLEASEnology.com> wrote:
>
>>Have you actually built a class C linear RF power amp? Tell us how it
>>works.
>
>It depends on how you define "linear" basically. But the term is a
>total misnomer in RF amp terminology and very misleading. I can't
>understand how it got there. :-/

Define "linear"? You must be joking.

I'll take that as a "no" to my question. Not surprised.

John

2045. Re: DTV disk on ham?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-28 16:13:15 UTC
From: Ken Scharf <wa2mzeNOTTHIS@bellsouth.net>
Message-ID: <Sc2Yc.37982$cx.25570@bignews4.bellsouth.net>
Source record: 23727

PDRUNEN wrote:
> Hi Group,
>
> Picked up a few good Direct TV disks around the local area. The LNA on them
> says 12.8GHz.
>
> Can anyone point me to a site or give me some general infomation on this
> things? I would assume that the cable between the receiver and LNA also supply
> the DC voltage.
>
> Is there any other band I could use the disk for? How about using it for the
> 2.4GHz or 5.8GHz band where there are video link equipment avaliable.
>
> Tnx de KJ4UO
I would guess that the dish would have too little gain below 10ghz to
be useful.

2046. Re: High Current Horror Stories

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-28 16:23:15 UTC
From: Ken Scharf <wa2mzeNOTTHIS@bellsouth.net>
Message-ID: <fm2Yc.38026$cx.6587@bignews4.bellsouth.net>
Source record: 23728
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur

OK, some more stupid tricks.
In Jr. High school science fair some kid
brought in a one tube radio, powered by
a 1.5v A battery and a 90 volt B battery.
Radio wasn't working so some brainiac
said 'test the batteries'. How do you test
them? Kid said he tested transistor radio
batteries by touching them to his tounge,
to taste the sour a good battery caused!!!

Well he tried that with the B battery!

PS...It was VERY GOOD!!!!!

(just how far did he threw that battery
across the room, I forgot!)

2047. Re: High Current Horror Stories

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-28 16:24:43 UTC
From: Ken Scharf <wa2mzeNOTTHIS@bellsouth.net>
Message-ID: <Bn2Yc.38032$cx.31397@bignews4.bellsouth.net>
Source record: 23729

Gary S. wrote:
> I seem to recall that one of the early founders of amateur radio in
> the US died from a similar accident.
>
> Details escape me, although I recall reading about it sometime last
> year.
>
> Happy trails,
> Gary (net.yogi.bear)
> --
> at the 51st percentile of ursine intelligence
>
> Gary D. Schwartz, Needham, MA, USA
> Please reply to: garyDOTschwartzATpoboxDOTcom
Russ Hall was eletrocuted by a CRT power supply
in the 30's while building an early TV receiver.

2048. WTB: EV-676 connector

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-28 16:35:48 UTC
From: Heytubeguy <heytubeguy@worldnet.att.net>
Message-ID: <Ev2Yc.526572$Gx4.42865@bgtnsc04-news.ops.worldnet.att.net>
Source record: 23731

LOOKING for 91-mc4m connector for EV-676 MIC. Used OK, Joe

2049. Re: How to bias a MOSFET amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-28 17:07:06 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <ooe1j0hk07082mnusi6nr5vqq0sntl040l@4ax.com>
Source record: 23732
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design

On Sat, 28 Aug 2004 08:43:21 -0700, John Larkin
<jjlarkin@highlandSNIPtechTHISnologyPLEASE.com> wrote:

>On Sat, 28 Aug 2004 10:36:21 +0100, Paul Burridge
><pb@notthisbit.osiris1.co.uk> wrote:
>
>>On Fri, 27 Aug 2004 17:43:34 -0700, John Larkin
>><jjlarkin@highSNIPlandTHIStechPLEASEnology.com> wrote:
>>
>>>Have you actually built a class C linear RF power amp? Tell us how it
>>>works.
>>
>>It depends on how you define "linear" basically. But the term is a
>>total misnomer in RF amp terminology and very misleading. I can't
>>understand how it got there. :-/
>
>Define "linear"? You must be joking.
>
>I'll take that as a "no" to my question. Not surprised.

Actually I've built *several* class C RF amps, John. However, I
wouldn't call any of them linear. You will be aware than linearity
starts to go out of the window when Class A slides into Class AB and
beyond. Let's not have an argument over definitions. It's an open
invitation to John Woodgate. ;-)
--

"What is now proved was once only imagin'd." - William Blake, 1793.

2050. Re: How to bias a MOSFET amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-28 17:21:33 UTC
From: John Fields <jfields@austininstruments.com>
Message-ID: <o8f1j0dfdhufbf6bn07ngnkc3vhvns8d2s@4ax.com>
Source record: 23733
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design

On Sat, 28 Aug 2004 10:56:03 +0100, Ian Jackson
<REMOVE-THIS-BIT@g3ohx.demon.co.uk> wrote:

>In message <nbk0j0tkn4frucfi9qa4m0223ifogaj6sb@4ax.com>, Paul Burridge
><pb@notthisbit.osiris1.co.uk> writes
>>On Fri, 27 Aug 2004 17:43:34 -0700, John Larkin
>><jjlarkin@highSNIPlandTHIStechPLEASEnology.com> wrote:
>>
>>>Have you actually built a class C linear RF power amp? Tell us how it
>>>works.
>>
>>It depends on how you define "linear" basically. But the term is a
>>total misnomer in RF amp terminology and very misleading. I can't
>>understand how it got there. :-/
>
>Don't forget that you cannot really modulate a 'linear' amplifier by
>varying the supply rail (which is what 'plate & screen' mod does). The
>modulated stage has to be non-linear (eg Class C) where the power output
>varies as the square of the supply volts.

Nonlinear? Yes. Class "C"? No.

From http://sound.westhost.com/class-a.htm :

"
Class-A Output device(s) conduct through 360 degrees of input cycle
(never switch off) - A single output device is possible. The device
conducts for the entire waveform in Figure 1

Class-B Output devices conduct for 180 degrees (1/2 of input cycle) -
for audio, two output devices in "push-pull" must be used (see
Class-AB)

Class-AB Halfway (or partway) between the above two examples (181 to
200 degrees typical) - also requires push-pull operation for audio.
The conduction for each output device is shown in Figure 1.

Class-C Output device(s) conduct for less than 180 degrees (100 to 150
degrees typical) - Radio Frequencies only - cannot be used for audio!
** This is the sound heard when one of the output devices goes open
circuit in an audio amp! See Figure 1, showing the time the output
device conducts (single-ended operation is assumed, and yes this does
work for RF)

Class-D Quasi-digital amplification. Uses pulse-width-modulation of a
high frequency (square wave) carrier to reproduce the audio signal -
because of frequency limitations (and the fact that they nearly all
seem to sound disgusting), many are only suitable for industrial
control of motors and loud but crappy sub-woofers (this may change if
transistors with an infinite bandwidth become available soon - yeah,
right!) All Class-D amps have a major limitation in the output filter,
whose response is highly dependent on the load impedance.
"

>If the PA was biassed in Class A, there wouldn't be any modulation.

There could be; all that would be required would be for the gain of
the stage to vary with the modulating input. I don't believe there's
a constraint on class A biasing which inherently precludes a class A
stage from being modulated.

--
John Fields

2051. Re: Polishing and drilling marble slabs?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-28 17:24:55 UTC
From: Highland Ham <abcgm0csz.kn6whxyz@abcntlworldxyz.com>
Message-ID: <Hd3Yc.468$477.73@newsfe6-gui.ntli.net>
Source record: 23734

> Assuming that one could obtain a slab of marble for the
> base of a home grown bug key, is it an easy thing to
> polish and to drill?
>
> Does one use ordinary masonry drills?
>
> Any undertakers out there?
==========
Yes that will do . I drilled a slate base (similar to marble) for a pump
key .
It might be helpful to drill with the marble immersed in water.
This method also enables drilling in glass , for example to fit a
feed-through for an antenna (single glazing of course)

Frank GM0CSZ / KN6WH

2052. Re: How to bias a MOSFET amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-28 17:27:42 UTC
From: John Larkin <jjlarkin@highlandSNIPtechTHISnologyPLEASE.com>
Message-ID: <ulf1j09i57351burss3kcdo7ob0cfihqsq@4ax.com>
Source record: 23735
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design

On Sat, 28 Aug 2004 18:07:06 +0100, Paul Burridge
<pb@notthisbit.osiris1.co.uk> wrote:

>On Sat, 28 Aug 2004 08:43:21 -0700, John Larkin
><jjlarkin@highlandSNIPtechTHISnologyPLEASE.com> wrote:
>
>>On Sat, 28 Aug 2004 10:36:21 +0100, Paul Burridge
>><pb@notthisbit.osiris1.co.uk> wrote:
>>
>>>On Fri, 27 Aug 2004 17:43:34 -0700, John Larkin
>>><jjlarkin@highSNIPlandTHIStechPLEASEnology.com> wrote:
>>>
>>>>Have you actually built a class C linear RF power amp? Tell us how it
>>>>works.
>>>
>>>It depends on how you define "linear" basically. But the term is a
>>>total misnomer in RF amp terminology and very misleading. I can't
>>>understand how it got there. :-/
>>
>>Define "linear"? You must be joking.
>>
>>I'll take that as a "no" to my question. Not surprised.
>
>Actually I've built *several* class C RF amps, John. However, I
>wouldn't call any of them linear. You will be aware than linearity
>starts to go out of the window when Class A slides into Class AB and
>beyond.

I am not aware of any such things. So I take it you have not designed
any class C linear RF power amplifiers.

> Let's not have an argument over definitions. It's an open
>invitation to John Woodgate. ;-)

So, let's not have any definitions at all. Then nobody would ever be
wrong.

John

2053. Re: How to bias a MOSFET amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-28 17:39:34 UTC
From: John Fields <jfields@austininstruments.com>
Message-ID: <2fg1j0hi5n2tqbqdbadj6h0euk6iilg5h7@4ax.com>
Source record: 23736
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design

On Sat, 28 Aug 2004 18:07:06 +0100, Paul Burridge
<pb@notthisbit.osiris1.co.uk> wrote:

>Actually I've built *several* class C RF amps, John.

Intentionally???

>However, I
>wouldn't call any of them linear. You will be aware than linearity
>starts to go out of the window when Class A slides into Class AB and
>beyond.

Really? I'd _love_ to hear your explanation for why that "happens".

I've heard a lot of amps that sounded pretty good at both low and high
volumes, and in between, and they've almost all had class AB outputs.

>Let's not have an argument over definitions. It's an open
>invitation to John Woodgate. ;-)

And you don't like getting your ears pinned back?^)

--
John Fields

2054. Re: looking for schematic making software

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-28 17:39:37 UTC
From: haf47@juno.com
Message-ID: <f03bf94f.0408280939.3bb59f7c@posting.google.com>
Source record: 23737

"bobinphx" <rbelisle1@cox.net> wrote in message
news:<GcRXc.176126$Oi.155621@fed1read04>...
> To All,
> Is there any software that will help ease the frustration of drawing a
> schematic by hand from an existing radio????
>
> Bob in phx

Two programs come to mind for drawing schematics. One is
TinyCad...don't let the name fool you, this is one powerful, yet easy
to use piece of software that will draw just about any type of
schmatic, and it's freeware. You can find it at:
http://tinycad.sourceforge.net/

Another is my personal favorite is EAGLE. This will not only draw
schematics, but will convert the schematic to a PCB, and it even has
an autorouter. It is a commecial program with features up the kazoo,
but also comes in a limited freeware version that can do most of the
work that any amateur or hobbyist needs. You can find it at:
http://www.cadsoft.de/

You can be drawing schematics with TinyCad after carefully reading the
help files for 20 minutes.

Eagle is a different story. This is an amazingly powerful piece of
softwre with a longer learning curve. It's my opinion that you'll find
it useless if you don't plan on spending 2 or 3 hours with it going
over the tutorial and practicing a bit. If you do put in the time,
Eagle will knock your socks off.

These programs and many more are available. A simple search on Google
for "schematic drawing software" came up with 366,00 hits. Now, many
of these hits were "about" software, but there were certainly many
that went to software sites.

Hope this helps you.

73 de WA2AFD

2055. Re: Polishing and drilling marble slabs?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-28 18:11:47 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2pc0ccFje6hoU1@uni-berlin.de>
Source record: 23738

I'll make up some switches out of brass rod - what I
have in mind is something like a large banana plug & socket
combination activated by nylon or PTFE rods. (I don't envisage
one FG rotary switch - I'll do it with separate switches,
possibly with some interlocking along the lines of
old railway signal box practice - I've enough books here
on that subject!

Primary doodles indicate that the antenna could be left
permanently connected to the inductor and one of the C's,
except in the case of a "T" network when it needs to be
connected to the other end of the said C.

There won't be any relays. The vertical antenna to the base
of which the ATU will be directly coupled is about 10 ft from
the shack and what I have in mind to use is a series of
activating rods - cunningly hidden/faced by a small picket fence.

The only area of development I haven't yet sussed out is how
to pass the operating rods into and out of a sealed (to keep
out the rain) chamber. Perhaps something like the stern
gland of a ship's propeller shaft might come into play here.

"john jardine" <john@jjdesigns.fsnet.co.uk> wrote in message
news:cgqbtv$2dl$1@news6.svr.pol.co.uk...
The 'select 1 of 10' ATU would seem a grade 1 mechanical-electrical
> juggernaut of switches, relays?, screening cans, adjustable inductors
> (roller coasters?), variables caps, connectors and knobs. I wish you a
> interesting journey :-).

2056. Re: Polishing and drilling marble slabs?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-28 18:19:48 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2pc0r5Fj62qrU1@uni-berlin.de>
Source record: 23740

PS. Don't expect any reports of rapid progress - mechanical
contrivances seem to take me an age, and I'm also undertaking
my own "vibroplex" bug key at the same time (Hence this
thread about marble slabs) . Mechanics is frustratingly slow.....

1. In software, you get an idea, and a couple of hours later, your
prototype is working well and exciting you as to the possibilities
of the next version.

2. In hardware, you get an idea, and a couple of days later, your
prototype breadboard is singing along.

3. In mechanics, you get an idea which requires 10 components,
and one week later you're lucky if you've managed to make the jig
for machining the first of those components!

"Airy R. Bean" <me@privacy.net> wrote in message
news:2pc0ccFje6hoU1@uni-berlin.de...
> I'll make up some switches out of brass rod -

2057. Re: How to bias a MOSFET amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-28 18:19:53 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <m1j1j0laji4tugfvlm3vv505gabhq3vr9e@4ax.com>
Source record: 23739
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design

On Sat, 28 Aug 2004 10:27:42 -0700, John Larkin
<jjlarkin@highlandSNIPtechTHISnologyPLEASE.com> wrote:

>I am not aware of any such things. So I take it you have not designed
>any class C linear RF power amplifiers.

It depends on what you call "power" (here we go again). Certainly not
beyond 500mW, no, if that answers your question.

>So, let's not have any definitions at all. Then nobody would ever be
>wrong.

I imagine Kevin would be the major beneficiary of that measure. :-)
--

"What is now proved was once only imagin'd." - William Blake, 1793.

2058. Re: How to bias a MOSFET amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-28 18:20:06 UTC
From: John Woodgate <jmw@jmwa.demon.contraspam.yuk>
Message-ID: <1$so5AEWzMMBFw6N@jmwa.demon.co.uk>
Source record: 23742
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design

I read in sci.electronics.design that Paul Burridge
<pb@notthisbit.osiris1.co.uk> wrote (in <ooe1j0hk07082mnusi6nr5vqq0sntl0
40l@4ax.com>) about 'How to bias a MOSFET amp?', on Sat, 28 Aug 2004:

>It's an open invitation to John
>Woodgate. ;-)

Oh, thank you, Paul. Remind me to invite you to explain something one
day.

People are using 'linear' in two different senses. For audio, in fact
for any amplifying stage with an **untuned load**, linearity requires
linearity of output current with respect to input voltage, (Class A
single ended or push-pull, Class B push-pull).

But with a **tuned load**, 'linearity' can be achieved even with Class C
biasing. This is why linearity in this case is defined as output power
being proportional to input power.

With a **tuned load**, the output power also depends more or less
linearly on the supply voltage, so amplitude modulation can be achieved
by varying the supply voltage.
--
Regards, John Woodgate, OOO - Own Opinions Only.
The good news is that nothing is compulsory.
The bad news is that everything is prohibited.
http://www.jmwa.demon.co.uk Also see http://www.isce.org.uk

2059. Re: How to bias a MOSFET amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-28 18:28:03 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <e6j1j0pufqcl460m5red31ecq7bcvqdalf@4ax.com>
Source record: 23741
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design

On Sat, 28 Aug 2004 12:39:34 -0500, John Fields
<jfields@austininstruments.com> wrote:

>On Sat, 28 Aug 2004 18:07:06 +0100, Paul Burridge
><pb@notthisbit.osiris1.co.uk> wrote:
>
>
>>Actually I've built *several* class C RF amps, John.
>
>---
>Intentionally???

Aha! very amusing. Most of them have been intentional, yes, but who
here can say they haven't ended up at some point with something they
hadn't bargained for?

>>However, I
>>wouldn't call any of them linear. You will be aware than linearity
>>starts to go out of the window when Class A slides into Class AB and
>>beyond.
>
>---
>Really? I'd _love_ to hear your explanation for why that "happens".

I won't bore you with explanations you're already well acquainted
with. But I'm still reeling from the revelation that you confused AM
with Class C. :-/

>I've heard a lot of amps that sounded pretty good at both low and high
>volumes, and in between, and they've almost all had class AB outputs.

I'm sure you have. But even class A isn't perfect. The pitfalls of
large-signal handling and all that. Do you know of an active device
with a *perfectly* linear transconductance between say 0 and 20V? No?
I thought not...
--

"What is now proved was once only imagin'd." - William Blake, 1793.

2060. Re: Doubling a reference frequency

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-28 18:40:25 UTC
From: "Harold E. Johnson" <W4ZCB@mchsi.com>
Message-ID: <sk4Yc.61598$9d6.35914@attbi_s54>
Source record: 23743

> >My 10Mhz TCXO that I use for a frequency counter timebase has gone
> >toes up and I only have a 5Mhz one available to replace it. Can anyone
> >offer ideas to double the 5 Mhz TCXO keeping the M:S ratio accurate
> >enough for use with the frequency counter ?.
>
Feed the 5 MHz to both inputs of a high level DBM. The output will be sum
and difference, kill the DC component with a 0.1 uF coupling cap and you
probably can use the 10 MHz result. If not, a little low pass filter to get
rid of the higher frequency responses will make it useable.

W4ZCB

2061. Re: How to bias a MOSFET amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-28 18:47:51 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <fok1j0d9vkelm6nfucf17hnusb06rdcu2i@4ax.com>
Source record: 23745
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design

On Sat, 28 Aug 2004 19:20:06 +0100, John Woodgate
<jmw@jmwa.demon.contraspam.yuk> wrote:

>Oh, thank you, Paul. Remind me to invite you to explain something one
>day.
>
>People are using 'linear' in two different senses.

No kidding? Only two? ;-)

> For audio, in fact
>for any amplifying stage with an **untuned load**, linearity requires
>linearity of output current with respect to input voltage, (Class A
>single ended or push-pull, Class B push-pull).
>
>But with a **tuned load**, 'linearity' can be achieved even with Class C
>biasing. This is why linearity in this case is defined as output power
>being proportional to input power.

Okay. I'm quite happy with that. Any not?
--

"What is now proved was once only imagin'd." - William Blake, 1793.

2062. Re: looking for schematic making software

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-28 18:48:30 UTC
From: John Popelish <jpopelish@rica.net>
Message-ID: <4130D37E.BEF3B59F@rica.net>
Source record: 23744

bobinphx wrote:
>
> To All,
> Is there any software that will help ease the frustration of drawing a
> schematic by hand from an existing radio????
>
> Bob in phx

I recently used DraftChoice for Windows (a downloadable shareware program) to reconstruct the schematic of an HP lab supply.

I created symbols for all the part types and then put them down on the screen (on grid) roughly where the parts were on the board. Then I connected them together with three colors of lines (one for each side of the board and one for flying leads). Then using the alter/rubber tool, I stretched the lines to put the parts in some obvious order that made sense to me. The rubber function stretches lines without distorting symbols. When the parts were all where I wanted them, I replaced the original colored lines with black ones. The result was a very fine schematic.

The big weakness of this program is its limited export capability. But it is very easy to work with and saves me a lot of time. If you get a copy and want a symbol file of my electronic symbols, email me and I will send it. I have a blank drawing file with the text set to .1 inch high, .1 inch grid and this symbol file included, to start any schematic. Then I save-as a new named file.

--
John Popelish

2063. Re: EV-676 connector

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-28 18:52:10 UTC
From: "G.Beat" <now9spamgb@no.comcast.spam.net>
Message-ID: <uv4Yc.331635$%_6.228360@attbi_s01>
Source record: 23746

"Heytubeguy" <heytubeguy@worldnet.att.net> wrote in message
news:Ev2Yc.526572$Gx4.42865@bgtnsc04-news.ops.worldnet.att.net...
> LOOKING for 91-mc4m connector for EV-676 MIC. Used OK, Joe
>

Joe -

The 91-MC4M connector was originally made by Amphenol.
In the 1980s, Wire Pro (WPI)acquired several of the commercial product
lines from Amphenol.
http://www.wpi-interconnect.com/salem.htm

The 78 and 86 Series of Commercial Plugs and Accessories as well as the 80
and 91 Series Microphone Connectors were two of these product lines acquired
at that time.

WirePro has the normal distributors: Allied, Newark, Arrow and ECCO
(Chicago)
http://www.eccochicago.com/ecco/index.asp

This surplus company says they have 580 in stock and the price is less than
$ 10) !
http://www.electronicsurplus.com/commerce/catalog/product.jsp?product_id=68641

Newark On-Line (just down the road from me) says they have it: Newark Part
number 39F016 -- and over 500 in stock at $ 10.58
http://www.newark.com/NewarkWebCommerce/newark/en_US/support/search/searchResults.jsp?QTex
t=39F016

This price is definitely from the audio (gold plated) audience = $ 26.00 !
http://www.oaktreeent.com/Vintage_Style_Microphone_Cables.htm

Ken's Electronics wants $ 16.00 for his connector (no wonder early CB died)
http://www.kenselectronics.com/lists/micplug.htm

Greg

2064. Re: How to bias a MOSFET amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-28 20:04:17 UTC
From: Ralph Mowery <rmowery28146@earthlink.net>
Message-ID: <5z5Yc.3257$6o3.2610@newsread2.news.atl.earthlink.net>
Source record: 23647
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design

> >But with a **tuned load**, 'linearity' can be achieved even with Class C
> >biasing. This is why linearity in this case is defined as output power
> >being proportional to input power.
>
> Okay. I'm quite happy with that. Any not?
> --

I am not. For a normal ham amp to be linear it can not be biased class C. Class C will not reproduce a SSB or AM signal. It only works with constant signal levesl such as FM or CW. The tunes circuit "rings" and reproduces the missing portion of the sine wave of a single frequency. It can not do this for signasl where the amplitude is constantly changing such as SSB or AM.
As a circuit is baised from A to B to C portions of the waveform is clipped out. Class B can be used for audio or rf if it is in a push pull circuit so that as one device (tube or transistor) is cut off the other is conducting on the other portion of the cycle.

The term linear is now being used incorrectly for almost any RF amp even if the amp is biased class C. While it is not linear many use the term linear when the word amplifier or class B or C ampifier should be used.

Any class (A, B , C) of amp can be plate modulated for AM. It is then not really an amplifier.

2065. Re: Vertical Antennae matching

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-28 20:12:20 UTC
From: Nimrod <mighty@hunter.com>
Message-ID: <2pc793Fj8v82U1@uni-berlin.de>
Source record: 23648

"Airy R. Bean" <me@privacy.net> wrote in message
news:2p3vuuFg16lnU4@uni-berlin.de...
> Presumably the roller coaster could be used for
> a vari-tap, but then that means that the whole coil
> will always be in circuit.
>

You've never seen a roller coaster I take it.

2066. Re: Polishing and drilling marble slabs?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-28 20:12:26 UTC
From: Nimrod <mighty@hunter.com>
Message-ID: <2pc7amFjbofeU1@uni-berlin.de>
Source record: 23649

"Airy R. Bean" <me@privacy.net> wrote in message
news:2pc0r5Fj62qrU1@uni-berlin.de...
> PS. Don't expect any reports of rapid progress - mechanical
> contrivances seem to take me an age, and I'm also undertaking
> my own "vibroplex" bug key at the same time (Hence this
> thread about marble slabs) . Mechanics is frustratingly slow.....
>
> 1. In software, you get an idea, and a couple of hours later, your
> prototype is working well and exciting you as to the possibilities
> of the next version.

You didn't manage that at Westinghouse, did you? As I recall you got sacked
for not getting it working.
>
> 2. In hardware, you get an idea, and a couple of days later, your
> prototype breadboard is singing along.

With or without Big K?
>
> 3. In mechanics, you get an idea which requires 10 components,
> and one week later you're lucky if you've managed to make the jig
> for machining the first of those components!

Fettled castings, stuck threads, etc etc.

2067. Re: How to bias a MOSFET amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-28 20:16:46 UTC
From: Zak <jute@zak.invalid>
Message-ID: <EK5Yc.6906$vH5.6515@amstwist00>
Source record: 23651
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design

Tam/WB2TT wrote:

> You are only scratching the surface. Check out the Harris DX series of high
> power AM transmitters. It will blow your mind away. Basically, the
> instantanous RF output power is synthesized by turning on 0 to 64 fairly low
> power (~KW) modules. I don't know what the sampling frequency is, but
> probably >20 KHz.. All modules are driven by a square wave signal at the
> carrier frequency. There is no modulator.

There is also a fractional stage - a 64 stage AM modulation would sound
quite nasty, so an analogue signal is added to make up.

There is also a 'spare stage' dthat can be switched in if one of the
stages fails.

Nice stuff, but the only really interesting thing IMO is the output
combiner. The rest is just 'how do we make this digital'.

Thomas

2068. FS: Now w/ new Pictures - Home Brew HF Linear Amplifier 80-10 meters, single Eimac 4-400

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-28 20:17:21 UTC
From: U_Need_This <kmil@REMOVE.skyweb.net>
Message-ID: <12q1j0td1dms63tv07t0prr593bf28t0cg@4ax.com>
Source record: 23650
Cross-posted to: rec.radio.swap,rec.radio.amateur.homebrew,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment

HF Linear Amplifier 80-10 meters single Eimac 4-400 with
separate RF Deck and Power Supply.
Nicely built the RF Deck looks like a Henry.

Output is adjustable with a simple change in value of a grid resistor.
Spare Eimac 4-400 NOS - tested however no hours,
both tubes in great shape.
Prefer pick up - the powersupply is heavy. $275

Pictures Here:
http://home.comcast.net/~quantor/hf-amp_4-400/index.html

de N2LGB
kmil@REMOVE.skyweb.net

2069. Re: How to bias a MOSFET amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-28 20:37:33 UTC
From: John Fields <jfields@austininstruments.com>
Message-ID: <dhp1j0tcdj141qrpdr6j3kb16fac2sc4df@4ax.com>
Source record: 23652
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design

On Sat, 28 Aug 2004 19:28:03 +0100, Paul Burridge
<pb@notthisbit.osiris1.co.uk> wrote:

>On Sat, 28 Aug 2004 12:39:34 -0500, John Fields
><jfields@austininstruments.com> wrote:
>
>>On Sat, 28 Aug 2004 18:07:06 +0100, Paul Burridge
>><pb@notthisbit.osiris1.co.uk> wrote:
>>
>>
>>>Actually I've built *several* class C RF amps, John.
>>
>>---
>>Intentionally???
>
>Aha! very amusing. Most of them have been intentional, yes, but who
>here can say they haven't ended up at some point with something they
>hadn't bargained for?
>
>>However, I
>>wouldn't call any of them linear. You will be aware than linearity
>>starts to go out of the window when Class A slides into Class AB and
>>beyond.
>>
>>---
>>Really? I'd _love_ to hear your explanation for why that "happens".
>
>I won't bore you with explanations you're already well acquainted
>with.

On the contrary, I'd like to hear why you think class AB or B isn't
(or can't be) linear, input-to-output.

>But I'm still reeling from the revelation that you confused AM
>with Class C. :-/

Go back and read it again in the context of "is that a smart thing to
do?" with your tongue-in-cheek detector energized.

>>I've heard a lot of amps that sounded pretty good at both low and high
>>volumes, and in between, and they've almost all had class AB outputs.

>
>I'm sure you have. But even class A isn't perfect. The pitfalls of
>large-signal handling and all that. Do you know of an active device
>with a *perfectly* linear transconductance between say 0 and 20V? No?
>I thought not...

We weren't talking about components with perfectly linear transfer functions, _you_ were alluding to deterioration of input-to-output linearity in systems using different driver biasing schemes. Or so I thought, when you said:

"You will be aware than linearity starts to go out of the window when Class A slides into Class AB and beyond."

And I'll repeat:

"I'd _love_ to hear your explanation for why that "happens".".

But never mind, now that Woodgate's cleared it up there's no need for you to embarrass yourself further.

--
John Fields

2070. Re: How to bias a MOSFET amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-28 21:08:37 UTC
From: Active8 <reply2group@ndbbm.net>
Message-ID: <1e6iv8lnwr2yt$.dlg@news.individual.net>
Source record: 23653
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design

On Sat, 28 Aug 2004 19:20:06 +0100, John Woodgate wrote:

<snip>
>
> With a **tuned load**, the output power also depends more or less
> linearly on the supply voltage, so amplitude modulation can be achieved
> by varying the supply voltage.

Just an obsevation... when you enclose a word or words in double
asterisks, my reader no longer renders them in bold, thus removing
the intended emphasis. IIRC it's the double underscore enclosure
that causes my reader to underline the text.

We now return you to our regularly scheduled terminology debate.

--
Best Regards,
Mike

2071. Re: How to bias a MOSFET amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-28 21:38:43 UTC
From: John Woodgate <jmw@jmwa.demon.contraspam.yuk>
Message-ID: <wsxZtvFjtPMBFwLZ@jmwa.demon.co.uk>
Source record: 23654
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design

I read in sci.electronics.design that Active8 <reply2group@ndbbm.net>
wrote (in <1e6iv8lnwr2yt$.dlg@news.individual.net>) about 'How to bias a
MOSFET amp?', on Sat, 28 Aug 2004:

>Just an obsevation... when you enclose a word or words in double
>asterisks, my reader no longer renders them in bold, thus removing the
>intended emphasis. IIRC it's the double underscore enclosure that causes
>my reader to underline the text.

You should use a plain text reader, as Manitou intended.(;-)
--
Regards, John Woodgate, OOO - Own Opinions Only.
The good news is that nothing is compulsory.
The bad news is that everything is prohibited.
http://www.jmwa.demon.co.uk Also see http://www.isce.org.uk

2072. Re: How to bias a MOSFET amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-28 23:26:29 UTC
From: Dave VanHorn <dvanhorn@cedar.net>
Message-ID: <I7ednfDcaPw6iazcRVn-hQ@comcast.com>
Source record: 23655
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design

Dad just bought a 2kW FET amplifier. It's ex-industrial use, but has MRF line transistors, and we expect no trouble putting it online for 160-10 meter use.
It's a dozen MRF-150s

Look up the specs (and the prices (OUCH)) on the MRF-154.

--
KC6ETE Dave's Engineering Page, www.dvanhorn.org
Microcontroller Consultant, specializing in Atmel AVR

2073. Re: Doubling a reference frequency

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-29 00:03:35 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cgr6gn$1tu$1@sparta.btinternet.com>
Source record: 23656

A few turns on a teeny ferrite ring 1:2 transformer, centre-tapped secondary, and a couple of diodes will double the frequency without any power loss.

2074. Re: Vertical Antennae matching

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-29 00:08:16 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cgr6pg$2e2$1@sparta.btinternet.com>
Source record: 23657

> > Presumably the roller coaster could be used for
> > a vari-tap, but then that means that the whole coil
> > will always be in circuit.
> >
>
> You've never seen a roller coaster I take it.
>
==========

He just loves looking for problems where none exist.

2075. Re: Vertical Antennae matching

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-29 00:30:15 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <oo82j097unqajoohodj1pfn4i97fvetqji@4ax.com>
Source record: 23658

On Sun, 29 Aug 2004 00:08:16 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>
>> > Presumably the roller coaster could be used for
>> > a vari-tap, but then that means that the whole coil
>> > will always be in circuit.
>> >
>>
>> You've never seen a roller coaster I take it.
>>
>==========
>
>He just loves looking for problems where none exist.

Rollercoasters are hard to come by these days, aren't they, Reg? I
haven't seen one in 25 years or so now. :-(

--

"What is now proved was once only imagin'd." - William Blake, 1793.

2076. Re: How to bias a MOSFET amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-29 00:36:33 UTC
From: kensmith@green.rahul.net
Message-ID: <cgr8eh$33r$1@blue.rahul.net>
Source record: 23659
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design

In article <1$so5AEWzMMBFw6N@jmwa.demon.co.uk>,
John Woodgate <noone@yuk.yuk> wrote:
[...]
>With a **tuned load**, the output power also depends more or less
>linearly on the supply voltage, so amplitude modulation can be achieved
>by varying the supply voltage.

Small quibble:

you need to add "for a large enough drive" to the above. For small drive
levels the drive and the device gm control the output power.

--
--
kensmith@rahul.net forging knowledge

2077. Re: Polishing and drilling marble slabs?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-29 00:44:49 UTC
From: john jardine <john@jjdesigns.fsnet.co.uk>
Message-ID: <cgqbtv$2dl$1@news6.svr.pol.co.uk>
Source record: 23730

"Airy R. Bean" <me@privacy.net> wrote in message
news:2pan9aFif0jdU1@uni-berlin.de...
> Presumably also, therefore, with the miniature grinding
> wheels of the "Dremel" style?
>
> "john jardine" <john@jjdesigns.fsnet.co.uk> wrote in message
> > ...material is basically quite soft and can be easily shaped with an
angle
> > grinder....
>
>
>
Yes. They work very well (even more so the diamond tipped fitments) but
take a god awful amount of time to process any useful areas.

The 'select 1 of 10' ATU would seem a grade 1 mechanical-electrical
juggernaut of switches, relays?, screening cans, adjustable inductors
(roller coasters?), variables caps, connectors and knobs. I wish you a
interesting journey :-).
During a radio phase I think I also tried 'em all. Concluded they're all
much-of-a-muchness and finally settled on a 2 component "L". (The human
ear's 'Db' response seems to make a bit of a mockery of equipment technical
spec's :-).
regards
john

2078. Re: How to bias a MOSFET amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-29 00:46:11 UTC
From: kensmith@green.rahul.net
Message-ID: <cgr90j$33r$2@blue.rahul.net>
Source record: 23660
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design

In article <1$so5AEWzMMBFw6N@jmwa.demon.co.uk>,
John Woodgate <noone@yuk.yuk> wrote:
[...]
>But with a **tuned load**, 'linearity' can be achieved even with Class C
>biasing. This is why linearity in this case is defined as output power
>being proportional to input power.

I think this is right:

If this isn't the slow modulation case, for a single device RF output stage to work as a linear you need to bias it to about the point where gm is 1/2 the "mid current" gm. This makes the stage class AB.

If you want to go towards class B or C there are things you can do in the slow modulation case. Basically as the RF input increases, you move into class C and as it decreases you move back towards AB. Moving to class C lowers the output power for large signals a bit so the AB class's standing current can be reduced by some amount.

--
--
kensmith@rahul.net forging knowledge

2079. Re: How to bias a MOSFET amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-29 00:48:51 UTC
From: kensmith@green.rahul.net
Message-ID: <cgr95j$33r$3@blue.rahul.net>
Source record: 23661
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design

In article <5z5Yc.3257$6o3.2610@newsread2.news.atl.earthlink.net>,
Ralph Mowery <rmowery28146@earthlink.net> wrote:
[...]
>Any class (A, B , C) of amp can be plate modulated for AM. It is then
>not really an amplifier.

I disagree with this. If the stage puts out more RF than it takes in, it
is an amplifier even if the purpose of the stage is to be a modulator.

--
--
kensmith@rahul.net forging knowledge

2080. Re: How to bias a MOSFET amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-29 00:55:52 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10j2acioqmafqec@corp.supernews.com>
Source record: 23663
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design

Paul Burridge wrote:

> On Fri, 27 Aug 2004 17:43:34 -0700, John Larkin
> <jjlarkin@highSNIPlandTHIStechPLEASEnology.com> wrote:
>
>
>>Have you actually built a class C linear RF power amp? Tell us how it
>>works.
>
>
> It depends on how you define "linear" basically. But the term is a
> total misnomer in RF amp terminology and very misleading. I can't
> understand how it got there. :-/

From basic systems theory:

A system S is linear if and only if for any two input signals x1 and x2 that generate the output signals y1 = S(x1) and y2 = S(x2), and for any two real constants A1 and A2, the output signal y = S(A1*x1 + A2*x2) is equal to A1*y1 + A2*y2.

This condition is approached with a properly adjusted RF linear amplifier, even one operated class AB or B. It is _not_ approached with a class C amplifier.

So if you define "linear" the way electronics engineering professionals define "linear" a class A, AB or B amplifier can be made to act linearly, more or less, and a class C amplifier cannot. So the term isn't a misnomer, and its use is obvious.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

2081. Re: How to bias a MOSFET amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-29 01:05:08 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <L8ednUzX7vsitqzcRVn-sA@comcast.com>
Source record: 23664
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design

"Zak" <jute@zak.invalid> wrote in message
news:EK5Yc.6906$vH5.6515@amstwist00...
> Tam/WB2TT wrote:
>
> > You are only scratching the surface. Check out the Harris DX series of
high
> > power AM transmitters. It will blow your mind away. Basically, the
> > instantanous RF output power is synthesized by turning on 0 to 64 fairly
low
> > power (~KW) modules. I don't know what the sampling frequency is, but
> > probably >20 KHz.. All modules are driven by a square wave signal at the
> > carrier frequency. There is no modulator.
>
> There is also a fractional stage - a 64 stage AM modulation would sound
> quite nasty, so an analogue signal is added to make up.
>
> There is also a 'spare stage' dthat can be switched in if one of the
> stages fails.
>
> Nice stuff, but the only really interesting thing IMO is the output
> combiner. The rest is just 'how do we make this digital'.
>
>
> Thomas

Yeah, exactly what I was wondering about, how do they combine the outputs?
They imply that they are combining power, but I suspect they are adding
voltages. BTW, the modules are not all the same. As I recall fom the WLW web
site, 60 are 1-2 KW, 1 is 500W, 2 are 200W, and 1 is 100W. They claim
something like 90% efficiency from 3 phase 60~ in to RF out. Also, there
must be some huge bandpass filter on the output to suppress the sampling
frequency.

Tam

2082. Re: looking for schematic making software

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-29 01:29:52 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <MPG.1b9ad16d52a21e83989712@news-central.giganews.com>
Source record: 23665

In article <GcRXc.176126$Oi.155621@fed1read04>, rbelisle1@cox.net
says...
> To All,
> Is there any software that will help ease the frustration of drawing a
> schematic by hand from an existing radio????
>
> Bob in phx
>
>
>

The schematic-capture facility of LTSpice is actually pretty decent.
Its interface is a bit quirky but VERY fast once you get used to it.

http://www.linear.com/software/

Amazing package considering the cost (free). (It would be impressive at
$5,000 a seat, actually.)

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

2083. Re: How to bias a MOSFET amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-29 02:10:52 UTC
From: legg <legg@nospam.magma.ca>
Message-ID: <rje2j0lh6kaj8u6us1hfrfm838ps8gdmrr@4ax.com>
Source record: 23666
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design

On Sat, 28 Aug 2004 10:36:21 +0100, Paul Burridge
<pb@notthisbit.osiris1.co.uk> wrote:

>On Fri, 27 Aug 2004 17:43:34 -0700, John Larkin
><jjlarkin@highSNIPlandTHIStechPLEASEnology.com> wrote:
>
>>Have you actually built a class C linear RF power amp? Tell us how it
>>works.
>
>It depends on how you define "linear" basically. But the term is a
>total misnomer in RF amp terminology and very misleading. I can't
>understand how it got there. :-/

I'd always understood that it refered to an operating frequency range
with a wide bandwidth, therefore suited to FM or frequency hopping.

RL

2084. Re: How to bias a MOSFET amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-29 06:09:18 UTC
From: John Woodgate <jmw@jmwa.demon.contraspam.yuk>
Message-ID: <NIqGfdAOMXMBFwsg@jmwa.demon.co.uk>
Source record: 23667
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design

I read in sci.electronics.design that Tim Wescott
<tim@wescottnospamdesign.com> wrote (in <10j2acioqmafqec@corp.supernews.
com>) about 'How to bias a MOSFET amp?', on Sat, 28 Aug 2004:

>A system S is linear if and only if for any two input signals x1 and x2
>that generate the output signals y1 = S(x1) and y2 = S(x2), and for any
>two real constants A1 and A2, the output signal y = S(A1*x1 + A2*x2) is
>equal to A1*y1 + A2*y2.
>
>This condition is approached with a properly adjusted RF linear
>amplifier, even one operated class AB or B. It is _not_ approached with
>a class C amplifier.

The point that the discussion has reached is that the term 'linear' IS
used in a different sense that includes Class C, whether we like it or
not.
>
>So if you define "linear" the way electronics engineering professionals
>define "linear" a class A, AB or B amplifier can be made to act
>linearly, more or less, and a class C amplifier cannot. So the term
>isn't a misnomer, and its use is obvious.

These are the 'electronic engineering professionals' who have 49
different definitions of 'level' in the International Electrotechnical
Vocabulary? (;-)
--
Regards, John Woodgate, OOO - Own Opinions Only.
The good news is that nothing is compulsory.
The bad news is that everything is prohibited.
http://www.jmwa.demon.co.uk Also see http://www.isce.org.uk

2085. Re: Doubling a reference frequency

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-29 07:01:36 UTC
From: mike@corn2.freeserve.co.uk
Message-ID: <41317d5b.37516796@news.freeserve.net>
Source record: 23668

Thankyou everyone for your responses.

I eventually dived into the counters divider chain and found there was
a div2 just where I needed it, so I'm back to "nearly on frequency".
All I have to do now is verify the accuracy of the 5Mhz TCXO :-)

atb Mike W

2086. Re: Doubling a reference frequency

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-29 07:08:09 UTC
From: budgie <me@privacy.net>
Message-ID: <t303j0l1b9rn4o75c3mvfarf2g1f8n8kng@4ax.com>
Source record: 23669

On Fri, 27 Aug 2004 07:32:37 GMT, mike@corn2.freeserve.co.uk (Mike W) wrote:

>GM Folks,
>My 10Mhz TCXO that I use for a frequency counter timebase has gone
>toes up and I only have a 5Mhz one available to replace it. Can anyone
>offer ideas to double the 5 Mhz TCXO keeping the M:S ratio accurate
>enough for use with the frequency counter ?.
>
>The 5Mhz TCXO has an output of 2v P-P sinewave into 50R and I need TTL
>level 50:50 M:S at 10Mhz.

Like several other posters, I'd be very surprised to see a counter that required
50:50 M/S ratio. Jitter in that would be extremely critical. All counters I've
seen use edge-triggering off the same edge for all timing/gating.

2087. My Radio Shack DX-375 problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-29 07:16:27 UTC
From: Devourment74@webtv.net
Message-ID: <19473-413182CB-3@storefull-3231.bay.webtv.net>
Source record: 23670

I cant get it to tune into frequencies like 3412 or 3413 or stuff like that. only stuff like 3415 and 3500 etc. you know only falls on 5's and 10's why wont it go to any 2's or 3's 4's and 6's 7's 8's etc etc?

2088. Re: Doubling a reference frequency

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-29 08:43:36 UTC
From: Ian Jackson <REMOVE-THIS-BIT@g3ohx.demon.co.uk>
Message-ID: <ekMXZ9D4cZMBFwP7@g3ohx.demon.co.uk>
Source record: 23671

In message <cgr6gn$1tu$1@sparta.btinternet.com>, Reg Edwards
<g4fgq.regp@ZZZbtinternet.com> writes
>A few turns on a teeny ferrite ring 1:2 transformer, centre-tapped
>secondary, and a couple of diodes will double the frequency without any
>power loss.
>
>
>
What Reg is describing here is undoubtedly the BEST and EASIEST and MOST PREDICTABLE way to double the frequency of a signal. You can also use it to obtain x2 and x6 etc, but with reducing efficiency. I have frequently used it to get signals up to about 1000MHz.

It s exactly the came circuit as for a bi-phase rectifier on a mains power supply, ie transformer with centre-tapped secondary and two diodes.
The shape of the output waveform is the same as what you get from the rectifier circuit, ie a series of half sinewaves (all +ve or -ve, depending on which way you connect the diodes). This contains an infinite series of even harmonics and no odds (including the fundamental).

For the mathematical, the theoretical level of each harmonic can be predicted from a knowledge of what Mr Fourier says about this shape of waveform (from the coefficients associated with each frequency). See below for several examples (just click on the examples at the bottom of the page).
http://www.efunda.com/math/fourier_series/fourier_series.cfm

In theory, there are no losses. But you are splitting a single signal into a load of even harmonics, so the level of each must be less than the original signal.

In practice, there ARE losses (in the diodes and the ferrite). From memory, the x2 is about 8dB down, x4 is about 16dB down, x6 is about 24dB on the original signal. These ratios are essentially independent of drive level, provided you have sufficient to overcome the knee of the diodes. If you are after the x4 and x6, you can actually do things which reduce the loss somewhat, and make the multiplication more efficient. But I digress...

Finally, a big advantage of this circuit is that the odd harmonics are well suppressed. They are not zero, but are typically 30 - 40dB less than the adjacent evens (depending on the balance of the circuit). This makes any filtering (if the application requires it) SO much easier.

Cheers,
Ian.

--

2089. Re: Polishing and drilling marble slabs?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-29 09:04:54 UTC
From: john jardine <john@jjdesigns.fsnet.co.uk>
Message-ID: <cgr97i$9mi$1@newsg2.svr.pol.co.uk>
Source record: 23662

"Airy R. Bean" <me@privacy.net> wrote in message
news:2pc0r5Fj62qrU1@uni-berlin.de...
> PS. Don't expect any reports of rapid progress - mechanical
> contrivances seem to take me an age, and I'm also undertaking
> my own "vibroplex" bug key at the same time (Hence this
> thread about marble slabs) . Mechanics is frustratingly slow.....
>
> 1. In software, you get an idea, and a couple of hours later, your
> prototype is working well and exciting you as to the possibilities
> of the next version.
>
> 2. In hardware, you get an idea, and a couple of days later, your
> prototype breadboard is singing along.
>
> 3. In mechanics, you get an idea which requires 10 components,
> and one week later you're lucky if you've managed to make the jig
> for machining the first of those components!
>
> "Airy R. Bean" <me@privacy.net> wrote in message
> news:2pc0ccFje6hoU1@uni-berlin.de...
> > I'll make up some switches out of brass rod -
>
>
Absolutely true!.
About 30 years ago I picked up a rake of bits and pieces from an amateur who operated in the 30's. Drawers full of brass stud terminals, connectors, wire crimp ends, knob pointers etc. nickel plated screw-downs etc. They're much too nice to use for normal construction and I've been waiting for a project to turn up where it's worth spending the time to make use of them. (maybe have to invent some kind of art-deco project) The Vibroplex idea is just this kind of much-sweat-n-toil, 'object of beauty', that's actually worth passing down from generation to generation. All the electronics and programming I've ever done, is so GD transient that I'm lucky to remember any of it after even a couple of years.
regards
john

2090. Re: My Radio Shack DX-375 problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-29 09:05:25 UTC
From: Joe McElvenney <ximac@btinternet.com>
Message-ID: <VA.00000042.003d969a@btinternet.com>
Source record: 23672

Hi,

> I cant get it to tune into frequencies like 3412 or 3413 or stuff like
> that. only stuff like 3415 and 3500 etc. you know only falls on 5's and
> 10's why wont it go to any 2's or 3's 4's and 6's 7's 8's etc etc?

AM shortwave broadcast stations are spaced at 5kHz intervals so the receiver was probably designed with that in mind. For simplicity's sake, they will have used a single loop design in the synthesiser with the aforementioned 5kHz as the PLL reference frequency. Had the receiver been meant for sideband/CW operation, it would then have had the ability tune in smaller increments.

Generally you get what you pay for :-(

Cheers - Joe

2091. Re: How to bias a MOSFET amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-29 11:46:23 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <7fg3j09sk1vlsi59ulbido2ctqi39evd96@4ax.com>
Source record: 23673
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design

On Sun, 29 Aug 2004 00:48:51 +0000 (UTC), kensmith@green.rahul.net
(Ken Smith) wrote:

>In article <5z5Yc.3257$6o3.2610@newsread2.news.atl.earthlink.net>,
>Ralph Mowery <rmowery28146@earthlink.net> wrote:
>[...]
>>Any class (A, B , C) of amp can be plate modulated for AM. It is then
>>not really an amplifier.
>
>I disagree with this. If the stage puts out more RF than it takes in, it
>is an amplifier

By that definition, it could also be an oscillator!
--

"What is now proved was once only imagin'd." - William Blake, 1793.

2092. Re: How to bias a MOSFET amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-29 11:49:46 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <4kg3j0d5nhifl6mktp474qlkjmoj11aj3f@4ax.com>
Source record: 23674
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design

On Sun, 29 Aug 2004 00:46:11 +0000 (UTC), kensmith@green.rahul.net
(Ken Smith) wrote:

>If this isn't the slow modulation case, for a single device RF output
>stage to work as a linear you need to bias it to about the point where gm
>is 1/2 the "mid current" gm. This makes the stage class AB.
>
>If you want to go towards class B or C there are things you can do in the
>slow modulation case. Basically as the RF input increases, you move into
>class C and as it decreases you move back towards AB. Moving to class C
>lowers the output power for large signals a bit so the AB class's standing
>current can be reduced by some amount.

Can't agree. If you're running any amount of standing current, then it
ain't class C.
--

"What is now proved was once only imagin'd." - William Blake, 1793.

2093. Re: How to bias a MOSFET amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-29 11:54:36 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <drg3j0tf1a640oa843e5lf6e0bmr0ueevf@4ax.com>
Source record: 23675
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design

On Sun, 29 Aug 2004 02:10:52 GMT, legg <legg@nospam.magma.ca> wrote:

>On Sat, 28 Aug 2004 10:36:21 +0100, Paul Burridge
><pb@notthisbit.osiris1.co.uk> wrote:
>
>>On Fri, 27 Aug 2004 17:43:34 -0700, John Larkin
>><jjlarkin@highSNIPlandTHIStechPLEASEnology.com> wrote:
>>
>>>Have you actually built a class C linear RF power amp? Tell us how it
>>>works.
>>
>>It depends on how you define "linear" basically. But the term is a
>>total misnomer in RF amp terminology and very misleading. I can't
>>understand how it got there. :-/
>
>I'd always understood that it refered to an operating frequency range
>with a wide bandwidth, therefore suited to FM or frequency hopping.

Curious. I have a book (by an author whose name I can't recall off
hand) called "High-Linearity RF Amplifier Design" in which said author
claims that a linear RF amplifier is one in which the transmitted
signal, regardless of however non-linear it may be, is passed through
sufficient filtering to clean it up! Work that one out if you can!
--

"What is now proved was once only imagin'd." - William Blake, 1793.

2094. Re: Vertical Antennae matching

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-29 13:14:52 UTC
From: Highland Ham <abcgm0csz.kn6whxyz@abcntlworldxyz.com>
Message-ID: <gFkYc.374$017.341@newsfe3-gui.ntli.net>
Source record: 23676

> Rollercoasters are hard to come by these days, aren't they, Reg? I
> haven't seen one in 25 years or so now. :-(
==========
Paul, From the above it is clear that you don't visit junk sales and flea markets all that often ,if ever.

Roller coasters can be found ,be it at gradually increasing prices.
An amateur radio flea market 'pilgrimage' to continental Europe would ,no doubt, provide a good harvest.

In the UK , Birkett -Lincoln has them from time to time.

Frank GM0CSZ / KN6WH

2095. Need Recomondations on Some Equipment

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-29 15:28:21 UTC
From: "Bob D." <bobmgtd@insightbb.com>
Message-ID: <pCmYc.64931$9d6.8103@attbi_s54>
Source record: 23677

TVM - I'm looking for something that has a LOUD continuity tester. (I've run across too many meters that you can barely hear.) I don't need portability, and I'm tired of changing batteries. Are there any models that run on AC? (Turn it on, and leave it on is my motto.)

Clamp on DC ammeter - Are there any models that go down to milliamp range?

Soldering Iron - I'm looking for something decent that won't burn up tips when left on for hours on end. I would also like interchangeable tips to range from heavy duty to fine soldering.

Any on-line vendors to order this stuff from?

Thanks,
Bob Donahue, ND9B

2096. Houston surplus parts store ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-29 16:14:57 UTC
From: Henry Kolesnik <kolesnik@sbcglobal.net>
Message-ID: <5inYc.14697$no4.9003@newssvr22.news.prodigy.com>
Source record: 23679
Cross-posted to:
rec.radio.amateur.homebrew,sci.electronics.components,rec.antiques.radio+phono,rec.radio.amateur.boatanchors

Are there any neat surplus electronics parts, eqpt, etc stores left in and
around Houston that I should check out on my this week?
tnx

--
73
Hank WD5JFR

2097. Re: Need Recomondations on Some Equipment

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-29 16:18:23 UTC
From: John Popelish <jpopelish@rica.net>
Message-ID: <413201CF.75BEC651@rica.net>
Source record: 23678

"Bob D." wrote:
(snip)
> Soldering Iron - I'm looking for something decent that won't burn up tips
> when left on for hours on end. I would also like interchangeable tips to
> range from heavy duty to fine soldering.

I bought my son one of these and he is very happy with it.
http://www.tequipment.net/Hakko936.html

--
John Popelish

2098. Re: Looking for griddip meter circuit

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-29 16:35:55 UTC
From: Nobody <Nobody_News@Hotmail.com>
Message-ID: <LBnYc.24889$C7.3904@amsnews05.chello.com>
Source record: 23680

I want to thank this group for al the help in looking for a Grid dip meter
circuit for homebuilding.

With kind regards
Nobody
>> >
>> >>I'm looking for a homebuild Griddip meter circuit so I can build one
>> >
>> > myself.
>> >
>> >>has anyone a link or a doc for making one that i can use.
>> >>
>> >>With kind regards
>> >>Nobody
>
>
> Google had over 15,000 hits for "Grid dip meter"
>
>

2099. Re: Houston surplus parts store ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-29 16:38:53 UTC
From: Moe <gibbonsc@bellsouth.net>
Message-ID: <ODnYc.36381$N11.31964@bignews5.bellsouth.net>
Source record: 23681
Cross-posted to:
rec.radio.amateur.homebrew,sci.electronics.components,rec.antiques.radio+phono,rec.radio.amateur.boatanchors
Body handling: Inline uuencoded payload not displayed: space.gif

EPO (eletronic parts outlet)

110 E Medical Center Blvd
Webster, TX 77598-430
out in Clear Lake area near NASA

"Henry Kolesnik" <kolesnik@sbcglobal.net> wrote in message
news:5inYc.14697$no4.9003@newssvr22.news.prodigy.com...
> Are there any neat surplus electronics parts, eqpt, etc stores left in and
> around Houston that I should check out on my this week?
> tnx
>
> --
> 73
> Hank WD5JFR
>
>

[Inline uuencoded payload not displayed: space.gif]

2100. Re: Houston surplus parts store ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-29 16:44:44 UTC
From: David <texas@houston.rr.com>
Message-ID: <0KnYc.64325$xi6.46905@fe2.texas.rr.com>
Source record: 23682
Cross-posted to:
rec.radio.amateur.homebrew,sci.electronics.components,rec.antiques.radio+phono,rec.radio.amateur.boatanchors

Hank-
Alas, Houston has become a wasteland for electronics scrounging from what I've been able to tell.
The EPO outlets used to have a reasonable amount of miltary and commercial surplus, but they've become commercialized towards computers, and the other garden variety electronics stores only carry the traditional stuff. Fry's is pretty cool, but obviously no surplus. Madison Electronics used to be the cats meow, but that was many years ago.

I assume you've heard of dallas' 1st Saturday sale, which occurs this coming weekend.
http://www.firstsaturday.com/ it's become computer-centric, but most of the electronics stuff (i.e. ham) start setting up around 7:00AM in the back area.

Also Ft Worth has Nortex
http://www.montagar.com/~patj/nortex.htm
Which is waay cool to browse, but don't expect to find any incredible finds or deals.

Too bad Houston isn't more like Dallas wrt surplus goodies.

regards
-dave
W5OC

"Henry Kolesnik" <kolesnik@sbcglobal.net> wrote in message
news:5inYc.14697$no4.9003@newssvr22.news.prodigy.com...
> Are there any neat surplus electronics parts, eqpt, etc stores left in and
> around Houston that I should check out on my this week?
> tnx
>
> --
> 73
> Hank WD5JFR
>
>

2101. Re: How to bias a MOSFET amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-29 18:03:30 UTC
From: kensmith@green.rahul.net
Message-ID: <cgt5piajg1@blue.rahul.net>
Source record: 23683
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design

In article <7fg3j09sk1vlsi59ulbido2ctqi39evd96@4ax.com>,
Paul Burridge <pb@notthisbit.osiris1.co.uk> wrote:
>On Sun, 29 Aug 2004 00:48:51 +0000 (UTC), kensmith@green.rahul.net
>(Ken Smith) wrote:
>
>>In article <5z5Yc.3257$6o3.2610@newsread2.news.atl.earthlink.net>,
>>Ralph Mowery <rmowery28146@earthlink.net> wrote:
>>[...]
>>>Any class (A, B , C) of amp can be plate modulated for AM. It is then
>>>not really an amplifier.
>>
>>I disagree with this. If the stage puts out more RF than it takes in, it
>>is an amplifier
>
>By that definition, it could also be an oscillator!

If you are putting RF in and getting RF out at the same frequency, in any reasonable case the circuit is acting as an amplifier. The circuit may well oscillate when no input is applied. This sort of amplifier was very common in the past and still is somewhat common.

A super-regen receiver is the most obvious example. Many tube based FM receiver designs had a FM detector that would oscillate with no input signal. The "burst lock oscillator" in a TV is in fact a very narrow pass filter and amplifier when there is a burst to lock to. With no burst it oscillates.

--
--
kensmith@rahul.net forging knowledge

2102. Re: How to bias a MOSFET amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-29 18:06:06 UTC
From: kensmith@green.rahul.net
Message-ID: <cgt5ueajg2@blue.rahul.net>
Source record: 23684
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design

In article <4kg3j0d5nhifl6mktp474qlkjmoj11aj3f@4ax.com>,
Paul Burridge <pb@notthisbit.osiris1.co.uk> wrote:
>On Sun, 29 Aug 2004 00:46:11 +0000 (UTC), kensmith@green.rahul.net
>(Ken Smith) wrote:
>
>>If this isn't the slow modulation case, for a single device RF output
>>stage to work as a linear you need to bias it to about the point where gm
>>is 1/2 the "mid current" gm. This makes the stage class AB.
>>
>>If you want to go towards class B or C there are things you can do in the
>>slow modulation case. Basically as the RF input increases, you move into
>>class C and as it decreases you move back towards AB. Moving to class C
>>lowers the output power for large signals a bit so the AB class's standing
>>current can be reduced by some amount.
>
>Can't agree. If you're running any amount of standing current, then it
>ain't class C.

If the conduction angle is less than 180 degrees it is class C. Note that
I said "you move into class C" this means the amplifier isn't always
running as class C. It only runs in class C with large signals. Since
the large signal case is were the losses really matter, this sort of
design will work quite a bit better than a simple class AB circuit.

--
--
kensmith@rahul.net forging knowledge

2103. Re: How to bias a MOSFET amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-29 18:12:18 UTC
From: John Larkin <jjlarkin@highlandSNIPtechTHISnologyPLEASE.com>
Message-ID: <c074j018nqllpp52llmogcu52vm3usu6mn@4ax.com>
Source record: 23685
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design

On Sun, 29 Aug 2004 12:49:46 +0100, Paul Burridge
<pb@notthisbit.osiris1.co.uk> wrote:

>
>Can't agree. If you're running any amount of standing current, then it
>ain't class C.

Tube class-C amps often self-bias (via grid rectification) when
operating normally. Without drive, they often have high, sometimes
dangerous, idle currents.

John

2104. Re: My Radio Shack DX-375 problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-29 18:15:30 UTC
From: Ken Scharf <wa2mzeNOTTHIS@bellsouth.net>
Message-ID: <r5pYc.40250$%n4.37834@bignews6.bellsouth.net>
Source record: 23686

Joe McElvenney wrote:
> Hi,
>
>
>>I cant get it to tune into frequencies like 3412 or 3413 or stuff like
>>that. only stuff like 3415 and 3500 etc. you know only falls on 5's and
>>10's why wont it go to any 2's or 3's 4's and 6's 7's 8's etc etc?
>
>
> AM shortwave broadcast stations are spaced at 5kHz intervals so the
> receiver was probably designed with that in mind. For simplicity's sake,
> they will have used a single loop design in the synthesiser with the
> aforementioned 5kHz as the PLL reference frequency. Had the receiver been
> meant for sideband/CW operation, it would then have had the ability tune
> in smaller increments.
>
> Generally you get what you pay for :-(
>
>
> Cheers - Joe
>
>
But some of these sets did have a 'claifier' or 'fine tune' knob that
pulled the reference rock a little to allow for off frequency stations
and SSB. For ssb you could also just move the BFO a bit too.
The RS rx in question probably doesn't have either of these controls.

2105. Re: My Radio Shack DX-375 problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-29 18:24:11 UTC
From: drwxr-xr-x <bit-bucket@config.com>
Message-ID: <slrncj47qb.5a5.bit-bucket@shell.config.com>
Source record: 23687

On Sun, 29 Aug 2004 09:05:25 +0000 (UTC), Joe McElvenney hath writ:
>
>> I cant get it to tune into frequencies like 3412 or 3413 or stuff like
>> that. only stuff like 3415 and 3500 etc. you know only falls on 5's and
>> 10's why wont it go to any 2's or 3's 4's and 6's 7's 8's etc etc?
>

> AM shortwave broadcast stations are spaced at 5kHz intervals...

In your country, perhaps.

2106. Re: How to bias a MOSFET amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-29 18:34:57 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <0884j05omd45q8in90rppb114dqs81elbq@4ax.com>
Source record: 23688
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design

On Sun, 29 Aug 2004 11:12:18 -0700, John Larkin
<jjlarkin@highlandSNIPtechTHISnologyPLEASE.com> wrote:

>Tube class-C amps often self-bias (via grid rectification) when
>operating normally. Without drive, they often have high, sometimes
>dangerous, idle currents.

Toobz? I was talking of transistors. Many tranny designs for Class C
RF utilize self-bias, too, but there is still no quiescent current!
--

"What is now proved was once only imagin'd." - William Blake, 1793.

2107. Re: Houston surplus parts store ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-29 18:38:17 UTC
From: Darrell <nomail@noplace.com>
Message-ID: <Xns95548AAB2CDDDnomailnoplacecom@207.217.125.206>
Source record: 23689
Cross-posted to:
rec.radio.amateur.homebrew,sci.electronics.components,rec.antiques.radio+phono,rec.radio.amateur.boatanchors

Ace Electronics, 3210 Antoine Dr. Houston, Texas 77092. Phone:713-688-8114

A little on the expensive side in my opinion, but loaded with all sorts of
parts and hardware.

Darrell, WA5VGO

"Henry Kolesnik" <kolesnik@sbcglobal.net> wrote in
news:5inYc.14697$no4.9003@newssvr22.news.prodigy.com:

> Are there any neat surplus electronics parts, eqpt, etc stores left in
> and around Houston that I should check out on my this week?
> tnx
>

2108. Re: How to bias a MOSFET amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-29 19:08:37 UTC
From: John Larkin <jjlarkin@highlandSNIPtechTHISnologyPLEASE.com>
Message-ID: <kba4j05ismqgr5s4qjru2q4lsp7rj9rval@4ax.com>
Source record: 23690
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design

On Sun, 29 Aug 2004 19:34:57 +0100, Paul Burridge
<pb@notthisbit.osiris1.co.uk> wrote:

>On Sun, 29 Aug 2004 11:12:18 -0700, John Larkin
><jjlarkin@highlandSNIPtechTHISnologyPLEASE.com> wrote:
>
>>Tube class-C amps often self-bias (via grid rectification) when
>>operating normally. Without drive, they often have high, sometimes
>>dangerous, idle currents.
>
>Toobz? I was talking of transistors. Many tranny designs for Class C
>RF utilize self-bias, too, but there is still no quiescent current!

What makes an amp Class C is a low conduction angle while operating.
When it's not operating, is has no class at all.

John

2109. Re: Need Recomondations on Some Equipment

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-29 19:17:22 UTC
From: "G.Beat" <now9spamgb@no.comcast.spam.net>
Message-ID: <6ZpYc.336673$%_6.177067@attbi_s01>
Source record: 23691

"Bob D." <bobmgtd@insightbb.com> wrote in message
news:pCmYc.64931$9d6.8103@attbi_s54...
> TVM - I'm looking for something that has a LOUD continuity tester. (I've
> run
> across too many meters that you can barely hear.) I don't need
> portability,
> and I'm tired of changing batteries. Are there any models that run on AC?
> (Turn it on, and leave it on is my motto.)
>
> Clamp on DC ammeter - Are there any models that go down to milliamp range?
>
> Soldering Iron - I'm looking for something decent that won't burn up tips
> when left on for hours on end. I would also like interchangeable tips to
> range from heavy duty to fine soldering.
>
> Any on-line vendors to order this stuff from?
>
> Thanks,
> Bob Donahue, ND9B
>

Bob -

You need to use a temperature controlled soldering station (period)

The Haako 936 has already been mentioned -- I actually do not own one.

I use the Weller TCP series which has been around for 50 years -- and is
very easy to repair.
Many list members use it from surface mount (1/32" conical tip) to
boatanchor repair (1/8" screwdriver tip)
Collins used them when Weller first marketed them on the assembly lines for
the Collins "S" line as well as
rework stations.
http://www.cooperhandtools.com/brands/electronic_applications/index.htm

Weller / Cooper Tools introduced "their answer" to the Haako 936 18 months
ago, which is the Weller WES51.
This station is readily available for same price as Haako. Both of these
stations are available at Fry's Electronics here in Chicago.
Almost all of the Weller stations are also available at TriState Electronics
in Mt. Prospect, IL

Weller also has just started in annual "Fall Promotion" (September 1 -
December 31, 2004)
http://www.cooperhandtools.com/fallpromo/index.html

If you would like to talk to a dealer for various alternatives ->
Consolidated Electronics in Dayton, OH is a good dealer for you.
Ask for Steve Coy (who is a ham and on the Dayton Hamvention committee).

Warranty repair for Weller is available in Apex, NC

If you desire one of the Weller stations I have restored or found a broken
WTCP unit you need repaired, contact me directly.

Greg

2110. Re: Need Recomondations on Some Equipment

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-29 19:27:00 UTC
From: "G.Beat" <now9spamgb@no.comcast.spam.net>
Message-ID: <86qYc.90390$mD.67908@attbi_s02>
Source record: 23692

"Bob D." <bobmgtd@insightbb.com> wrote in message
news:pCmYc.64931$9d6.8103@attbi_s54...
> TVM - I'm looking for something that has a LOUD continuity tester. (I've
> run
> across too many meters that you can barely hear.) I don't need
> portability,
> and I'm tired of changing batteries. Are there any models that run on AC?
> (Turn it on, and leave it on is my motto.)
>
> Clamp on DC ammeter - Are there any models that go down to milliamp range?
>
> Soldering Iron - I'm looking for something decent that won't burn up tips
> when left on for hours on end. I would also like interchangeable tips to
> range from heavy duty to fine soldering.
>
> Any on-line vendors to order this stuff from?
>
> Thanks,
> Bob Donahue, ND9B
>

Bob,

One more point, IF you do order via the Internet --
order your selection of tips at the same time as the station (especially
with Haako from TE Equipment)

Many have a minimum order of $ 25 to $ 40 -- depending upon firm.

If you want suggestions on tips, let us know what you are soldering -- I
have a recommended list of abut 4 tips varieties.

Greg
w9gb

2111. Electronics Club - Time to "pass the knowledge torch"

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-29 19:31:04 UTC
From: "G.Beat" <now9spamgb@no.comcast.spam.net>
Message-ID: <Y9qYc.336733$%_6.220291@attbi_s01>
Source record: 23693
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew

Well its that time of year again, and school has started.

Middle schools, high schools and youth organizations (e.g., 4-H, Boy Scouts,
Girl Scouts) often look to their communities for assistance in developing
"experiential"
learning programs and knowledgeable volunteers.

Electronics and computers are often at the top of the lists for external
assistance by these educational organizations.

If your assistance is asked for, one of the biggest stumbling blocks that
you may face is gathering the proper educational materials
or developing actual projects for these organizations or groups.

One web site that I would highly recommend is the Electronics Club web page.
This web page was designed by Mr. J. Hewes for the students (pupils) at the
Kelsey Park School (UK).

Electronics Club - Kelsey Park School
http://www.kpsec.freeuk.com/index.htm

The AmQRP / NorCal Keyer Kit is also a possible kit for educational usage
http://www.amqrp.org/kits/NCKeyer/index.html

I already received my request from a new middle school teacher 2 weeks ago !

Greg
w9gb

2112. Re: How to bias a MOSFET amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-29 20:04:53 UTC
From: John Fields <jfields@austininstruments.com>
Message-ID: <6md4j0tqa2if26ga7b5dhrjd3qna6h5g1o@4ax.com>
Source record: 23694
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design

On Sun, 29 Aug 2004 12:08:37 -0700, John Larkin
<jjlarkin@highlandSNIPtechTHISnologyPLEASE.com> wrote:

>On Sun, 29 Aug 2004 19:34:57 +0100, Paul Burridge
><pb@notthisbit.osiris1.co.uk> wrote:
>
>>On Sun, 29 Aug 2004 11:12:18 -0700, John Larkin
>><jjlarkin@highlandSNIPtechTHISnologyPLEASE.com> wrote:
>>
>>>Tube class-C amps often self-bias (via grid rectification) when
>>>operating normally. Without drive, they often have high, sometimes
>>>dangerous, idle currents.
>>
>>Toobz? I was talking of transistors. Many tranny designs for Class C
>>RF utilize self-bias, too, but there is still no quiescent current!
>
>
>What makes an amp Class C is a low conduction angle while operating.
>When it's not operating, is has no class at all.

I ran into a surgeon like that once...

--
John Fields

2113. Re: Houston surplus parts store ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-29 20:49:54 UTC
From: Jimmie Stewart <jimmiestewart@worldnet.att.net>
Message-ID: <SjrYc.271722$OB3.184185@bgtnsc05-news.ops.worldnet.att.net>
Source record: 23695
Cross-posted to:
rec.radio.amateur.homebrew,sci.electronics.components,rec.antiques.radio+phono,rec.radio.amateur.boatanchors

Hank what are you looking for.and what dates are you hear.
There are two EPO in Houton.
The main one and first one closer to the center of Houston.
http://www.epo-houston.com/

jimmie stewart

what a
Henry Kolesnik <kolesnik@sbcglobal.net> wrote in message
news:5inYc.14697$no4.9003@newssvr22.news.prodigy.com...
> Are there any neat surplus electronics parts, eqpt, etc stores left in and
> around Houston that I should check out on my this week?
> tnx
>
> --
> 73
> Hank WD5JFR
>
>

Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.733 / Virus Database: 487 - Release Date: 8/2/04

2114. Re: Need Recomondations on Some Equipment

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-29 23:07:26 UTC
From: R J Carpenter <rcarpen@erols.com>
Message-ID: <41326fa5$0$19732$61fed72c@news.rcn.com>
Source record: 23696

> "Bob D." <bobmgtd@insightbb.com> wrote in message
> news:pCmYc.64931$9d6.8103@attbi_s54...
> >
> > Clamp on DC ammeter - Are there any models that go down to milliamp
range?

HP made one many moons ago. It is so old that it is 100% tube. I carefully guard the one at work whenever there is a housecleaning.

2115. Re: How to bias a MOSFET amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-30 01:57:39 UTC
From: keith <krw@att.bizzzz>
Message-ID: <pan.2004.08.30.01.57.38.299408@att.bizzzz>
Source record: 23597
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design

On Sun, 29 Aug 2004 15:04:53 -0500, John Fields wrote:

> On Sun, 29 Aug 2004 12:08:37 -0700, John Larkin
> <jjlarkin@highlandSNIPtechTHISnologyPLEASE.com> wrote:
>
>>On Sun, 29 Aug 2004 19:34:57 +0100, Paul Burridge
>><pb@notthisbit.osiris1.co.uk> wrote:
>>
>>>On Sun, 29 Aug 2004 11:12:18 -0700, John Larkin
>>><jjlarkin@highlandSNIPtechTHISnologyPLEASE.com> wrote:
>>>
>>>>Tube class-C amps often self-bias (via grid rectification) when
>>>>operating normally. Without drive, they often have high, sometimes
>>>>dangerous, idle currents.
>>>
>>>Toobz? I was talking of transistors. Many tranny designs for Class C
>>>RF utilize self-bias, too, but there is still no quiescent current!
>>
>>
>>What makes an amp Class C is a low conduction angle while operating.
>>When it's not operating, is has no class at all.
>
> ---
> I ran into a surgeon like that once...

Burridge? <shudder>

--
Keith

2116. Re: Houston surplus parts store ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-30 02:21:50 UTC
From: Henry Kolesnik <kolesnik@sbcglobal.net>
Message-ID: <2bwYc.14843$vO7.13013@newssvr22.news.prodigy.com>
Source record: 23598
Cross-posted to:
rec.radio.amateur.homebrew,sci.electronics.components,rec.antiques.radio+phono,rec.radio.amateur.boatanchors

I guess I should have mentioned that I know about the 2 EPOs and in the past
I've been at Madison. I'll be there Tuesday, leaving Tulsa monday morning.
Just looking for neat stuff.

--
73
Hank WD5JFR

"Jimmie Stewart" <jimmiestewart@worldnet.att.net> wrote in message
news:SjrYc.271722$OB3.184185@bgtnsc05-news.ops.worldnet.att.net...
> Hank what are you looking for.and what dates are you hear.
> There are two EPO in Houton.
> The main one and first one closer to the center of Houston.
> http://www.epo-houston.com/
>
> jimmie stewart
>
> what a
> Henry Kolesnik <kolesnik@sbcglobal.net> wrote in message
> news:5inYc.14697$no4.9003@newssvr22.news.prodigy.com...
> > Are there any neat surplus electronics parts, eqpt, etc stores left in
and
> > around Houston that I should check out on my this week?
> > tnx
> >
> > --
> > 73
> > Hank WD5JFR
> >
> >
>
>
> ---
> Outgoing mail is certified Virus Free.
> Checked by AVG anti-virus system (http://www.grisoft.com).
> Version: 6.0.733 / Virus Database: 487 - Release Date: 8/2/04
>
>

2117. Re: Electronics Club - Time to "pass the knowledge torch"

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-30 03:26:17 UTC
From: Paul P <p@worldnet.att.net>
Message-ID: <t7xYc.273301$OB3.49454@bgtnsc05-news.ops.worldnet.att.net>
Source record: 23599
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew

Perhaps a tad OT but an enjoyable read. The Electronics Club material may
be useful in our Boy Scout/Cub Scout troop.
Thanks,
Paul
"G.Beat" <now9spamgb@no.comcast.spam.net> wrote in message
news:Y9qYc.336733$%_6.220291@attbi_s01...
> Well its that time of year again, and school has started.
>
> Middle schools, high schools and youth organizations (e.g., 4-H, Boy
Scouts,
> Girl Scouts) often look to their communities for assistance in developing
> "experiential"
> learning programs and knowledgeable volunteers.
>
> Electronics and computers are often at the top of the lists for external
> assistance by these educational organizations.
>
> If your assistance is asked for, one of the biggest stumbling blocks that
> you may face is gathering the proper educational materials
> or developing actual projects for these organizations or groups.
>
> One web site that I would highly recommend is the Electronics Club web
page.
> This web page was designed by Mr. J. Hewes for the students (pupils) at
the
> Kelsey Park School (UK).
>
> Electronics Club - Kelsey Park School
> http://www.kpsec.freeuk.com/index.htm
>
> The AmQRP / NorCal Keyer Kit is also a possible kit for educational usage
> http://www.amqrp.org/kits/NCKeyer/index.html
>
> I already received my request from a new middle school teacher 2 weeks ago
!
>
> Greg
> w9gb
>
>

2118. Re: Electronics Club - Time to "pass the knowledge torch"

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-30 03:47:56 UTC
From: David Stinson <arc5@ix.netcom.com>
Message-ID: <MrxYc.818$Gr2.71@trnddc07>
Source record: 23600
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew

"Pass the knowledge torch" to today's kids
and they'll light their crack pipe with it...

2119. Re: Houston surplus parts store ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-30 04:16:45 UTC
From: truegridtz <marko@hal-pc.org>
Message-ID: <4132a85f$0$452$a726171b@news.hal-pc.org>
Source record: 23601
Cross-posted to:
rec.radio.amateur.homebrew,sci.electronics.components,rec.antiques.radio+phono,rec.radio.amateur.boatanchors

Hey Henry:

I was told last week that in Missouri City is Charlie's Airwaves. He sells renovated antique radios and he supposedly has some interesting surplus. If I recall correctly Missouri City is South of Houston on I59, about 15-20 minutes. If I can find a map I will try to find out if this is correct and post it.

His card I have here says C.B.s, Antennas, Stereos, Microwaves, TVs, Satellites, RV parts, Accessories.

2547 Cartwright Rd.
Missouri City, Texas
281-499-5214

There is also O&E Electronics on Shephard about 3 blocks south of the North Loop 610.

713-880-3055

This place is a major mess, but he does have a lot of odds and ends. He has a large rack of used test gear. Also has a lot of NOS tubes, but a bit pricey. He has tons of Sam's for sale. They mostly have parts for repairing old TVs and VCRs, etc. Lots of weird ICs.

Vintage Sounds sells antique radios and phonographs. They are the HVRA crowd. Lots of interesting pieces, all restored. Also have lots of tubes, some books, records, very few parts except parts for acoustic phonographs. They have horns, reproducers, knobs, etc. 713-468-4911. In the Hart Antique Center on Fondren about 1/4 mile south of Westheimer. On the right when heading south. Open till 6, 7 days.

The other EPO is right down the road from Vintage Sounds, on Fondren. Just keep heading south past the elementary school, it is on the left about another mile. Go through the light at Richmond when heading further south on Fondren.

The Houston traffic is much easier before 2pm. Happy Hunting, Mark

"Henry Kolesnik" <kolesnik@sbcglobal.net> wrote in message news:2bwYc.14843$vO7.13013@newssvr22.news.prodigy.com...
> I guess I should have mentioned that I know about the 2 EPOs and in the past
> I've been at Madison. I'll be there Tuesday, leaving Tulsa monday morning.

> Just looking for neat stuff.
>
> --
> 73
> Hank WD5JFR
>
> "Jimmie Stewart" <jimmiestewart@worldnet.att.net> wrote in message
> news:SjrYc.271722$OB3.184185@bgtnsc05-news.ops.worldnet.att.net...
> > Hank what are you looking for.and what dates are you hear.
> > There are two EPO in Houton.
> > The main one and first one closer to the center of Houston.
> > http://www.epo-houston.com/
> >
> > jimmie stewart
> >
> > what a
> > Henry Kolesnik <kolesnik@sbcglobal.net> wrote in message
> > news:5inYc.14697$no4.9003@newssvr22.news.prodigy.com...
> > > Are there any neat surplus electronics parts, eqpt, etc stores left in
> and
> > > around Houston that I should check out on my this week?
> > > tnx
> > >
> > > --
> > > 73
> > > Hank WD5JFR
> > >
> > >
> >
> >
> > ---
> > Outgoing mail is certified Virus Free.
> > Checked by AVG anti-virus system (http://www.grisoft.com).
> > Version: 6.0.733 / Virus Database: 487 - Release Date: 8/2/04
> >
> >
>
>

2120. Re: Electronics Club - Time to "pass the knowledge torch"

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-30 04:39:19 UTC
From: Steven Dinius <10kc@fmtc.com>
Message-ID: <10j5brdrll7kk2f@corp.supernews.com>
Source record: 23602
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew

"David Stinson" <arc5@ix.netcom.com> wrote in message
news:MrxYc.818$Gr2.71@trnddc07...
> "Pass the knowledge torch" to today's kids
> and they'll light their crack pipe with it...

I watched a 16 year-old nearly fix a tough mechanical problem with a
Rowe/AMI stereo jukebox and he was halfway there towards fixing my IF coils.
Bite your tongue.

2121. Re: Electronics Club - Time to "pass the knowledge torch"

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-30 04:39:51 UTC
From: JDAM <piddle@puddle.com>
Message-ID: <urb5j0dbukni76msm2rugdmbjfuknod161@4ax.com>
Source record: 23603
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew

On Mon, 30 Aug 2004 03:47:56 GMT, David Stinson <arc5@ix.netcom.com>
wrote:

> "Pass the knowledge torch" to today's kids
>and they'll light their crack pipe with it...

Now that sounds like the voice of experience!

2122. Re: Electronics Club - Time to "pass the knowledge torch"

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-30 04:42:24 UTC
From: Steven Dinius <10kc@fmtc.com>
Message-ID: <10j5c16ghgjt2d3@corp.supernews.com>
Source record: 23604
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew

PS If he manages to finish it I've promised him a 1960's Sharp SS multiband portable. His aptitude is marvelous.

"Steven Dinius" <10kc@fmtc.com> wrote in message news:10j5brdrll7kk2f@corp.supernews.com...
> "David Stinson" <arc5@ix.netcom.com> wrote in message
> news:MrxYc.818$Gr2.71@trnddc07...
> > "Pass the knowledge torch" to today's kids
> > and they'll light their crack pipe with it...
>
> I watched a 16 year-old nearly fix a tough mechanical problem with a
> Rowe/AMI stereo jukebox and he was halfway there towards fixing my IF coils.
> Bite your tongue.
>
>

2123. Re: Houston surplus parts store ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-30 05:42:22 UTC
From: truegridtz <marko@hal-pc.org>
Message-ID: <4132bc69$0$445$a726171b@news.hal-pc.org>
Source record: 23605
Cross-posted to:
rec.radio.amateur.homebrew,sci.electronics.components,rec.antiques.radio+phono,rec.radio.amateur.boatanchors

HK: To get to Missouri City go south on 59 and
exit Texas Hwy 6 (a few miles outside city limit). Turn left on 6 and go a
few miles. This map shows that Cartwright intersects Texas 6 as Road 3345.
Turn left on 3345. If you get to Road 1092 you've gone too far so do a 180
and go back to 3345. You may already know where it is. Good Luck MH
"Henry Kolesnik" <kolesnik@sbcglobal.net> wrote in message
news:5inYc.14697$no4.9003@newssvr22.news.prodigy.com...
> Are there any neat surplus electronics parts, eqpt, etc stores left in and
> around Houston that I should check out on my this week?
> tnx
>
> --
> 73
> Hank WD5JFR
>
>

2124. NBFM from DDS chip

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-30 05:50:10 UTC
From: MikeN <mnewman@clear.net.nz>
Message-ID: <1jf5j0dqvqu83v0ebcs4lu07citgrb1v78@4ax.com>
Source record: 23606
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

Hi

Has anyone given thought to producing NBFM using the AD 9854 or
similar DDS chips, for multiplying or heterodyning up to 2m or 70cm.

This could be an interesting project. I see Analog Devices has an
application note AN-543 which describes a stereo WBFM generator with
output on 90.3 MHz.

73 de MikeN ZL1BNB

2125. Re: Polishing and drilling marble slabs?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-30 10:10:25 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2pge67Fk4nq5U1@uni-berlin.de>
Source record: 23607

A fatal attitude to progressing with useful projects in
the mean time!

I had this approach to a number of things until someone
pointed out to me that the most expensive and luxurious
item that is already in your junk box is much, much
cheaper than the shoddiest thing you can buy!

Now, if it's to hand, and will do the job, I use
it and move on.

For example, I had a 28MHz 2-ele beam that was in
its original packing for many years - then the aluminiium
tube got used to make the legs of a clock-testing horse
last year.

"john jardine" <john@jjdesigns.fsnet.co.uk> wrote in message
news:cgr97i$9mi$1@newsg2.svr.pol.co.uk...
>..... They're much
> too nice to use for normal construction and I've been waiting for a
project
> to turn up where it's worth spending the time to make use of them.....

2126. Re: Vertical Antennae matching

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-30 10:13:51 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2pge67Fk4nq5U2@uni-berlin.de>
Source record: 23608

For those of you who lack the necessary technical acumen
to qualify for a Ham Radio licence, the issue is two-fold....
A variable tapping point _TOGETHER WITH_ a variable inductance
require two independently variables, but the roller-coaster
provides you with only one.

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:cgr6pg$2e2$1@sparta.btinternet.com...
> > > Presumably the roller coaster could be used for
> > > a vari-tap, but then that means that the whole coil
> > > will always be in circuit.
> > You've never seen a roller coaster I take it.
> He just loves looking for problems where none exist.

2127. Re: Vertical Antennae matching

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-30 10:19:05 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2pge67Fk4nq5U3@uni-berlin.de>
Source record: 23609

At the Wimborne FRS rally, there were two identical models on adjacent stands in the flea market. One was priced at £15 and the other at £50 or £60 (I did comment on the price contemporaneously, but now I've forgotten it because it wasn't the one that I went for)

I suspect that with the CBisation of Ham Radio, especially here in Britland with the M3/CB Fools' Licence, that more and more of these will come on to the second hand market when increasing numbers of CBers-Masquerading-As-Radio-Hams have no idea what to do with them, what with their buy-in-a-box complete stations with auto antennae tuners enclosed.

"Highland Ham" <abcgm0csz.kn6whxyz@abcntlworldxyz.com> wrote in message news:gFkYc.374$017.341@newsfe3-gui.ntli.net...
> > Rollercoasters are hard to come by these days, aren't they, Reg? I
> > haven't seen one in 25 years or so now. :-(
> Paul, From the above it is clear that you don't visit junk sales and flea
> markets all that often ,if ever.
> Roller coasters can be found ,be it at gradually increasing prices.
> An amateur radio flea market 'pilgrimage' to continental Europe would
> ,no doubt, provide a good harvest.
> In the UK , Birkett -Lincoln has them from time to time.

2128. European Difficulty - Re: Houston surplus parts store ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-30 10:23:58 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2pge68Fk4nq5U4@uni-berlin.de>
Source record: 23610
Cross-posted to:
rec.radio.amateur.homebrew,sci.electronics.components,rec.antiques.radio+phono,rec.radio.amateur.boatanchors

This will become an increasing problem in Yerp when the
WEE Waste directive takes hold - no company will be able to
dispose of old electronic eqpt other than through a licensed
waste operator, who must in his turn be able to show that he
has passed it on to similarly licensed people.

Scrap electronics will become a thing of the past for the enthusiast.

"David" <texas@houston.rr.com> wrote in message
news:0KnYc.64325$xi6.46905@fe2.texas.rr.com...
> Alas, Houston has become a wasteland for electronics scrounging from what
> I've been able to tell.

2129. Draper _NOT_ recommended! Re: Need Recomondations on Some Equipment

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-30 10:30:43 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2pge68Fk4nq5U5@uni-berlin.de>
Source record: 23611

Don't buy Draper tools!

I recently purchased a 100W soldering iron from them.....
1. The bit fell out and burnt the carpet after some 10 minutes use.
2. After being left on for an hour or two (cumulative annoyances in
trying to solder a PL259 onto the coax braid), the tip has a large hole
in the end.

Not having learnt my lesson, two days ago I purchased a pair of rotary
pliers for punching holes in leather - after punching 3 holes, 4 of the
punches fell out of the rotary selector, where they were supposedly
a force fit.

(Buying Chinese-manufactured goods can spoil your love
affair for engineering - you get a "Chink" in the amour!)

"Bob D." <bobmgtd@insightbb.com> wrote in message
news:pCmYc.64931$9d6.8103@attbi_s54...
> Soldering Iron - I'm looking for something decent that won't burn up tips
> when left on for hours on end. I would also like interchangeable tips to
> range from heavy duty to fine soldering.

2130. Re: Polishing and drilling marble slabs?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-30 11:06:54 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2pggp1Fk952hU1@uni-berlin.de>
Source record: 23612

I forgot the SPC, but that appears to need a differential
capacitor that I haven't yet obtained (or made).

Also, ISTR reading somewhere (that I cannot find) that
the SPC arrangement is very lossy, and can result in
3/4 of the power being lost in the ATU itself)

For the other configurations below, I've worked out that I
need only 8 simple on-off switches to effect all the configurations
below, including the safety issue of isolating the antenna from the
TX and earthing it.

"Airy R. Bean" <me@privacy.net> wrote in message
news:2pamo7FiqhsrU2@uni-berlin.de...
> I am trying to conceive of a minimal switching scheme to accommodate
> the 10 ATU configurations discovered so far....
> Straight through
> Series C
> Series L
> Series C-L
> "L" network with C on TX side
> "L" network with C on ant side
> "PI" network
> "T" network
> Parallel tank, series fed
> Parallel tank, parallel fed

2131. Re: Metric PL259?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-30 11:16:22 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2pggp2Fk952hU2@uni-berlin.de>
Source record: 23613

And more recently have obtained some offcuts
of 40mm nylon round rod from a local engineering
works.

"Airy R. Bean" <me@privacy.net> wrote in message
news:2nrm38F3se65U1@uni-berlin.de...
>> I'm now well on the way to repairing the 5/8ths where I had to
> engage in destructive test - I've been given a large sheet of
> Paxolin/Tufnol which is 7/8ths of an inch thick, so 3 thicknesses
> of that araldited together and turned down should do the
> trick.

2132. Re: Electronics Club - Time to "pass the knowledge torch"

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-30 11:59:08 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <hc56j0hnk0iis90dv56jljlhfhv90pgv7o@4ax.com>
Source record: 23614
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew

On Sun, 29 Aug 2004 19:31:04 GMT, "G.Beat"
<now9spamgb@no.comcast.spam.net> wrote:

>Well its that time of year again, and school has started.
>
>Middle schools, high schools and youth organizations (e.g., 4-H, Boy Scouts,
>Girl Scouts) often look to their communities for assistance in developing
>"experiential"
>learning programs and knowledgeable volunteers.
>
>Electronics and computers are often at the top of the lists for external
>assistance by these educational organizations.

Computers (or more likely computer games) might be at the top of the
list, but kids nowadays don't seem to give a f**k about electronics in
general. Hardly surprising, given the superficial garbage we force
feed them via TV, film and "newspapers."
--

"What is now proved was once only imagin'd." - William Blake, 1793.

2133. FA: Mobile mics, manuals, tubes, parts...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-30 12:42:27 UTC
From: Heytubeguy <heytubeguy@worldnet.att.net>
Message-ID: <TgFYc.533207$Gx4.411330@bgtnsc04-news.ops.worldnet.att.net>
Source record: 23616

See at :

http://cgi6.ebay.com/ws/eBayISAPI.dll?ViewSellersOtherItems&userid=heytubeguy&completed=0&sort=3&since=-1&include=0&page=1&rows=25

Check back often-place address in ur 'favorites' for quick checking, tnx
heytubeguy

2134. AMATEUR MOVIES HUNGARIAN | FRENCH | BELGIAN

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-30 12:42:33 UTC
From: flint <tendance@tendance.com>
Message-ID: <4133203b$1$3537$ba620e4c@news.skynet.be>
Source record: 23615

http://www.virtualpinkstore.com

2135. Re: NBFM from DDS chip

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-30 14:15:54 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10j6dkgrmvcti69@corp.supernews.com>
Source record: 23617
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

MikeN wrote:
> Hi
>
> Has anyone given thought to producing NBFM using the AD 9854 or
> similar DDS chips, for multiplying or heterodyning up to 2m or 70cm.
>
> This could be an interesting project. I see Analog Devices has an
> application note AN-543 which describes a stereo WBFM generator with
> output on 90.3 MHz.
>
> 73 de MikeN ZL1BNB

I've been considering it for years; it should work OK as long as your sample rates are high enough. In fact there are nice, small DSP chips now that should implement a good FM receiver to go along with it for a complete transceiver.

It's never been a paying project for me, and it's never made it to the top of the "home brew" pile, so it stays in "would be cool" land.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

2136. Re: High Current Horror Stories

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-30 14:38:34 UTC
From: mrmonett@yahoo.com
Message-ID: <7e4a2a11.0408300638.37e467ab@posting.google.com>
Source record: 23618
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur

Paul Burridge <pb@notthisbit.osiris1.co.uk> wrote in message
news:<pgguh0dee6ars3kmv3o13i7ubcmf3efqbo@4ax.com>...
> Hi all,
>
> Anyone got any high-current/low-voltage horror stories they'd care to
> share? You know; where your messin' about with a car battery or
> something like that and forget to take your watch off or whatever.
>
> p.

Hi Paul,

Here's some to remember next time you are raising an antenna near power lines:

Guy on PCP grabs 16,000 volts and lives:

http://members.tripod.com/~StormTrooper_2/index2.htm

High Voltage Sparks and Arcs - cursor down to "Crane Tangles with a 46 kV Feeder..."

http://205.243.100.155/frames/longarc.htm

Best

Mike

2137. Re: My Radio Shack DX-375 problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-30 14:42:54 UTC
From: clifto <clifto@clifto.com>
Message-ID: <e0rb02-ug3.ln1@remote.clifto.com>
Source record: 23619

Devourment 420 wrote:
> I cant get it to tune into frequencies like 3412 or 3413 or stuff like
> that. only stuff like 3415 and 3500 etc. you know only falls on 5's and
> 10's why wont it go to any 2's or 3's 4's and 6's 7's 8's etc etc?

Because the designers didn't want it to do that.

--
"The truth, which is what elections are all about, is that the tax burden of the middle class has gone up while the tax burden of the middle class has gone down." -- John Kerry, August 26, 2004

2138. Re: How to bias a MOSFET amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-30 17:22:01 UTC
From: John Larkin <jjlarkin@highSNIPlandTHIStechPLEASEnology.com>
Message-ID: <7fo6j05rp857et2n7tbqlp12bavl48qrrv@4ax.com>
Source record: 23620
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design

On Sun, 29 Aug 2004 21:57:39 -0400, keith <krw@att.bizzzz> wrote:

>On Sun, 29 Aug 2004 15:04:53 -0500, John Fields wrote:
>
>> On Sun, 29 Aug 2004 12:08:37 -0700, John Larkin
>> <jjlarkin@highlandSNIPtechTHISnologyPLEASE.com> wrote:
>>
>>>On Sun, 29 Aug 2004 19:34:57 +0100, Paul Burridge
>>><pb@notthisbit.osiris1.co.uk> wrote:
>>>
>>>>On Sun, 29 Aug 2004 11:12:18 -0700, John Larkin
>>>><jjlarkin@highlandSNIPtechTHISnologyPLEASE.com> wrote:
>>>>
>>>>>Tube class-C amps often self-bias (via grid rectification) when
>>>>>operating normally. Without drive, they often have high, sometimes
>>>>>dangerous, idle currents.
>>>>
>>>>Toobz? I was talking of transistors. Many tranny designs for Class C
>>>>RF utilize self-bias, too, but there is still no quiescent current!
>>>
>>>
>>>What makes an amp Class C is a low conduction angle while operating.
>>>When it's not operating, is has no class at all.
>>
>> ---
>> I ran into a surgeon like that once...
>
>Burridge? <shudder>

He said surgeon, not sturgeon.

John

2139. Re: High Current Horror Stories

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-30 17:36:32 UTC
From: Roger Gt <not@here.net>
Message-ID: <AAJYc.9691$QJ3.8777@newssvr21.news.prodigy.com>
Source record: 23621
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur

: Paul Burridge <pb@notthisbit.osiris1.co.uk> wrote in message
news:<pgguh0dee6ars3kmv3o13i7ubcmf3efqbo@4ax.com>...
: > Hi all,
: >
: > Anyone got any high-current/low-voltage horror stories they'd
care to
: > share? You know; where your messin' about with a car battery
or
: > something like that and forget to take your watch off or
whatever.

Yes.

2140. Re: How to bias a MOSFET amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-30 17:53:56 UTC
From: John Woodgate <jmw@jmwa.demon.contraspam.yuk>
Message-ID: <sl0O$yE0m2MBFw4z@jmwa.demon.co.uk>
Source record: 23622
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design

I read in sci.electronics.design that John Larkin <jjlarkin@highSNIPland
THIStechPLEASEnology.com> wrote (in <7fo6j05rp857et2n7tbqlp12bavl48qrrv@
4ax.com>) about 'How to bias a MOSFET amp?', on Mon, 30 Aug 2004:
>He said surgeon, not sturgeon.

But, being male, PB is not even a potential source of caviar.
--
Regards, John Woodgate, OOO - Own Opinions Only.
The good news is that nothing is compulsory.
The bad news is that everything is prohibited.
http://www.jmwa.demon.co.uk Also see http://www.isce.org.uk

2141. Re: NBFM from DDS chip

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-30 17:54:43 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <cgvppn$9jv$1@newshost.mot.com>
Source record: 23624
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

"Tim Wescott" <tim@wescottnospamdesign.com> wrote in message
news:10j6dkgrmvcti69@corp.supernews.com...
> MikeN wrote:
> > Hi
> >
> > Has anyone given thought to producing NBFM using the AD 9854 or
> > similar DDS chips, for multiplying or heterodyning up to 2m or 70cm.
> >
> > This could be an interesting project. I see Analog Devices has an
> > application note AN-543 which describes a stereo WBFM generator with
> > output on 90.3 MHz.
> >
> > 73 de MikeN ZL1BNB
>
> I've been considering it for years; it should work OK as long as your
> sample rates are high enough. In fact there are nice, small DSP chips
> now that should implement a good FM receiver to go along with it for a
> complete transceiver.
>
> It's never been a paying project for me, and it's never made it to the
> top of the "home brew" pile, so it stays in "would be cool" land.
> Tim Wescott
> Wescott Design Services
> http://www.wescottdesign.com

I wouldn't be surprised if this wasn't the algorithm used in DSP generation
of FM.

It was used to generate four part music, in software, back in the early 80's
with a 0.9 MHz 6809 CPU.
--
Steve N, K,9;d, c. i My email has no u's.

2142. Re: How to bias a MOSFET amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-30 18:11:01 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <obr6j0pi9m9lkj83ls2bk9ggpcqr77unbf@4ax.com>
Source record: 23623
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design

On Mon, 30 Aug 2004 18:53:56 +0100, John Woodgate
<jmw@jmwa.demon.contraspam.yuk> wrote:

>I read in sci.electronics.design that John Larkin <jjlarkin@highSNIPland
>THIStechPLEASEnology.com> wrote (in <7fo6j05rp857et2n7tbqlp12bavl48qrrv@
>4ax.com>) about 'How to bias a MOSFET amp?', on Mon, 30 Aug 2004:
>>He said surgeon, not sturgeon.
>
>
>But, being male, PB is not even a potential source of caviar.

Hey ladies, gimme a break will ya? Don't make your PMS my problem. ;-)
--

"What is now proved was once only imagin'd." - William Blake, 1793.

2143. Re: Polishing and drilling marble slabs?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-30 18:50:03 UTC
From: dplatt@radagast.org
Message-ID: <10j6tmrd2k6nf20@corp.supernews.com>
Source record: 23625

In article <2pggp1Fk952hU1@uni-berlin.de>, Airy R. Bean <me@privacy.net> wrote:

>I forgot the SPC, but that appears to need a differential
>capacitor that I haven't yet obtained (or made).

The SPC circuits I've seen (including the classic design in the late '90s ARRL Handbook) does not use a differential capacitor. Its output capacitor is a dual-section non-differential type - the two sections track in parallel.

I have seen some T-type tuners which use a differential capacitor, with one section being the input cap and the other being the output cap. MFJ sells one of these. These are advertised as being more convenient, since establishing a match requires tuning only two controls rather than three. However, I doubt that this arrangement results in the most efficient match.

>Also, ISTR reading somewhere (that I cannot find) that
>the SPC arrangement is very lossy, and can result in
>3/4 of the power being lost in the ATU itself)

I don't think that's a specific characteristic of the SPC - it seems to be true of T tuners in general. The T configuration does provide a wide matching range, but in the case of very low-impedance or highly reactive loads the "match" may result in extremely high circulating currents through the coil, with the resulting high losses. A "T" tuner with sufficient reactance in the components may let you establish a "match" for a short-circuited load... but you'll end up dissipating almost 100% of your power in the coil. The SPC probably shares the same characteristic.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will boycott any company which has the gall to send me such ads!

2144. Re: How to bias a MOSFET amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-30 19:47:57 UTC
From: John Fields <jfields@austininstruments.com>
Message-ID: <7217j0pgquamcj9uf5ldlcmmkjcclsjc5q@4ax.com>
Source record: 23626
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design

On Mon, 30 Aug 2004 18:53:56 +0100, John Woodgate
<jmw@jmwa.demon.contraspam.yuk> wrote:

>I read in sci.electronics.design that John Larkin <jjlarkin@highSNIPland
>THIStechPLEASEnology.com> wrote (in <7fo6j05rp857et2n7tbqlp12bavl48qrrv@
>4ax.com>) about 'How to bias a MOSFET amp?', on Mon, 30 Aug 2004:
>>He said surgeon, not sturgeon.
>
>
>But, being male, PB is not even a potential source of caviar.

But most of what he sources _is_ fishy.

--
John Fields

2145. Re: NBFM from DDS chip

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-30 20:03:38 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <5507j0hi93v6lhhjbl86693nvdlpup9nue@4ax.com>
Source record: 23627
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Mon, 30 Aug 2004 17:50:10 +1200, MikeN <mnewman@clear.net.nz>
wrote:

>Has anyone given thought to producing NBFM using the AD 9854 or
>similar DDS chips, for multiplying or heterodyning up to 2m or 70cm.

Doesn't the smaller DDS chips have serial loading of the phase
accumulator addend ?

To get communication quality audio, at least 8 kHz sampling rate is
required. If the phase accumulator addend is 32 bits, the serial clock
would have to be more than 2 MHz.

On 9854, the 14 bit phase offset word could also be used, thus
reducing the serial data clock to 1 MHz, well below the maximum 10 MHz
data clock frequency.

Maybe the FSK ramp rate could be used to reduce the clock rate needed.

>This could be an interesting project. I see Analog Devices has an
>application note AN-543 which describes a stereo WBFM generator with
>output on 90.3 MHz.

A stereo WBFM generator would require at least 120 kHz sampling rate,
which would be quite trivial with parallel tuning words, but would be
quite demanding if 32 or 48 bit tuning words needs to be loaded each
audio sample time.

Paul OH3LWR

2146. WANTED: Info on VHF Portable

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-30 20:45:49 UTC
From: Norm VE3CZI <ve3czi@arrl.net>
Message-ID: <8oMYc.12950$0c.3266@read1.cgocable.net>
Source record: 23628
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.swap

Recently obtained a VHF Portable Radio that has NO information as to
Manufacturer or Model of Unit.
From info already in the unit, I know it is:
VHF Wide Spaced / 1W & 5W / 15 Channels / CSQ / Has a battery marked as
B-706 / Has a sticker on side marked KH142UH / PC Boards inside are marked
KOMBIX PC-181 & PC-177.
I have listed a link to a picture of this unit below.

Any assistance with this unit's Identification, Manuals etc... would be
appreciated...then I have to find a Programmer ! !
Tnx & 73....Norm VE3CZI
http://home.cogeco.ca/~rodemi/Images%20%5bMISC%5d/KH142UH%20VHF%20Portable.jpg

2147. Re: WANTED: Info on VHF Portable

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-30 21:41:18 UTC
From: Lou <lburkel@core.com>
Message-ID: <41339EFE.1050102@core.com>
Source record: 23629
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.swap

Norm VE3CZI wrote:

> Recently obtained a VHF Portable Radio that has NO information as to
> Manufacturer or Model of Unit.
> From info already in the unit, I know it is:
> VHF Wide Spaced / 1W & 5W / 15 Channels / CSQ / Has a battery marked as
> B-706 / Has a sticker on side marked KH142UH / PC Boards inside are marked
> KOMBIX PC-181 & PC-177.
> I have listed a link to a picture of this unit below.
>
> Any assistance with this unit's Identification, Manuals etc... would be
> appreciated...then I have to find a Programmer ! !
> Tnx & 73....Norm VE3CZI
> http://home.cogeco.ca/~rodemi/Images%20%5bMISC%5d/KH142UH%20VHF%20Portable.jpg
>

If the radio has an FCC ID number on it, you may be able to
find some information at the following site.
http://www.fcc.gov/oet/fccid/help.html
Lou
AA9ZW

2148. Re: WANTED: Info on VHF Portable

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-31 00:26:53 UTC
From: Robert Kubichek <bobn9lvu@lakefield.net>
Message-ID: <4133C5CD.7070605@lakefield.net>
Source record: 23630
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.swap

It looks like you have the Kombix kh-140 with a keypad added.
good luck on finding info.
Bob N9LVU

Norm VE3CZI wrote:
> Recently obtained a VHF Portable Radio that has NO information as to
> Manufacturer or Model of Unit.
> From info already in the unit, I know it is:
> VHF Wide Spaced / 1W & 5W / 15 Channels / CSQ / Has a battery marked as
> B-706 / Has a sticker on side marked KH142UH / PC Boards inside are marked
> KOMBIX PC-181 & PC-177.
> I have listed a link to a picture of this unit below.
>
> Any assistance with this unit's Identification, Manuals etc... would be
> appreciated...then I have to find a Programmer ! !
> Tnx & 73....Norm VE3CZI
> http://home.cogeco.ca/~rodemi/Images%20%5bMISC%5d/KH142UH%20VHF%20Portable.jpg
>
>

2149. Re: How to bias a MOSFET amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-31 02:03:00 UTC
From: keith <krw@att.bizzzz>
Message-ID: <pan.2004.08.31.02.02.59.500961@att.bizzzz>
Source record: 23631
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design

On Mon, 30 Aug 2004 18:53:56 +0100, John Woodgate wrote:

> I read in sci.electronics.design that John Larkin <jjlarkin@highSNIPland
> THIStechPLEASEnology.com> wrote (in <7fo6j05rp857et2n7tbqlp12bavl48qrrv@
> 4ax.com>) about 'How to bias a MOSFET amp?', on Mon, 30 Aug 2004:
>>He said surgeon, not sturgeon.
>
>
> But, being male, PB is not even a potential source of caviar.

OTOH, he's a good source of other slime. If you want ot go there, be my
guest!

--
Keith

2150. Re: How to bias a MOSFET amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-31 02:03:49 UTC
From: keith <krw@att.bizzzz>
Message-ID: <pan.2004.08.31.02.03.48.216455@att.bizzzz>
Source record: 23632
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design

On Mon, 30 Aug 2004 19:11:01 +0100, Paul Burridge wrote:

> On Mon, 30 Aug 2004 18:53:56 +0100, John Woodgate
> <jmw@jmwa.demon.contraspam.yuk> wrote:
>
>>I read in sci.electronics.design that John Larkin <jjlarkin@highSNIPland
>>THIStechPLEASEnology.com> wrote (in <7fo6j05rp857et2n7tbqlp12bavl48qrrv@
>>4ax.com>) about 'How to bias a MOSFET amp?', on Mon, 30 Aug 2004:
>>>He said surgeon, not sturgeon.
>>
>>
>>But, being male, PB is not even a potential source of caviar.
>
> Hey ladies, gimme a break will ya? Don't make your PMS my problem. ;-)

Paul's Miserable Shit?

--
Keith

2151. Re: High Current Horror Stories

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-31 06:16:04 UTC
From: Rex <me@hutmail.invalid>
Message-ID: <n168j0tgpq5cajlr3885ui9lm799i64t5r@4ax.com>
Source record: 23633
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur

On 30 Aug 2004 07:38:34 -0700, mrmonett@yahoo.com (Mike Monett) wrote:

>High Voltage Sparks and Arcs - cursor down to "Crane Tangles with a 46 kV Feeder..."
>
> http://205.243.100.155/frames/longarc.htm
>

Wow. Spectacular videos. I cranked up the sound for maximum effect on
the 500KV one, and after several plays, one of my destop speakers walked
off the desk and fell on the floor.

2152. Re: High Current Horror Stories

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-31 06:42:03 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10j87duh1c4l547@corp.supernews.com>
Source record: 23634
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur

This comment reminded me of a High Current Horror Story related to me by an older friend. In his youth he repaired radios, hi-fi systems, and the like. One well-heeled customer had large, expensive speakers at the room corners, with the hi-fi in the middle. He'd put the speaker wiring in the walls. For connectors, he'd used ordinary mains AC power receptacles, with matching cord and plug on each speaker.

When the repair was finished, my friend plugged the speaker back into the outlet. He knew exactly what had happened the moment he plugged it in when he heard a monstrous, deafening hum -- but even then it was too late, the speaker was cooked. Let's see, 120^2 / 8(*) = . . . now, that's LOUD!

Roy Lewallen, W7EL

(*) and I suspect that the speaker impedance was somewhat lower yet at 60 Hz.

Rex wrote:

> On 30 Aug 2004 07:38:34 -0700, mrmonett@yahoo.com (Mike Monett) wrote:
>
>
>>High Voltage Sparks and Arcs - cursor down to "Crane Tangles with a 46 kV Feeder..."
>>
>> http://205.243.100.155/frames/longarc.htm
>>
>
>
> Wow. Spectacular videos. I cranked up the sound for maximum effect on
> the 500KV one, and after several plays, one of my destop speakers walked
> off the desk and fell on the floor.
>

2153. Re: High Current Horror Stories

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-31 09:48:20 UTC
From: Rex <me@hutmail.invalid>
Message-ID: <fih8j05ktfvdqmr8a1tv6fp8g4r81bomjb@4ax.com>
Source record: 23635
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur

And you reminded me of something too. Not really a problem, but could
have been.

When I was working on mainframe computers in the 70's we installed a new
machine in Europe. The power for the computer was supplied by a big
motor generator with an output of 3-phase 208 V 400 Hz (or was it CPS
back then?) power to the computer. I learned from the customer that they
discovered that a wiring error had routed the motor generator power to
the wall sockets in the computer room.

I told the customer that it was very good they had found this problem
before people used the sockets. If the cleaning lady had come in and
plugged a vacuum cleaner into the 400 Hz power, it would have probably
sucked all the air out of the room. :-)

-Rex, KK6MK

On Mon, 30 Aug 2004 23:42:03 -0700, Roy Lewallen <w7el@eznec.com> wrote:

>This comment reminded me of a High Current Horror Story related to me by
>an older friend. In his youth he repaired radios, hi-fi systems, and the
>like. One well-heeled customer had large, expensive speakers at the room
>corners, with the hi-fi in the middle. He'd put the speaker wiring in
>the walls. For connectors, he'd used ordinary mains AC power
>receptacles, with matching cord and plug on each speaker.
>
>When the repair was finished, my friend plugged the speaker back into
>the outlet. He knew exactly what had happened the moment he plugged it
>in when he heard a monstrous, deafening hum -- but even then it was too
>late, the speaker was cooked. Let's see, 120^2 / 8(*) = . . . now,
>that's LOUD!
>
>Roy Lewallen, W7EL
>
>(*) and I suspect that the speaker impedance was somewhat lower yet at
>60 Hz.
>
>Rex wrote:
>
>> On 30 Aug 2004 07:38:34 -0700, mrmonett@yahoo.com (Mike Monett) wrote:
>>
>>
>>>High Voltage Sparks and Arcs - cursor down to "Crane Tangles with a 46 kV Feeder..."
>>>
>>> http://205.243.100.155/frames/longarc.htm

>>>
>>
>>
>> Wow. Spectacular videos. I cranked up the sound for maximum effect on
>> the 500KV one, and after several plays, one of my destop speakers walked
>> off the desk and fell on the floor.
>>

2154. Re: European Difficulty - Re: Houston surplus parts store ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-31 09:59:12 UTC
From: truegridtz <marko@hal-pc.org>
Message-ID: <41344a14$0$449$a726171b@news.hal-pc.org>
Source record: 23636
Cross-posted to:
rec.radio.amateur.homebrew,sci.electronics.components,rec.antiques.radio+phono,rec.radio.amateur.boatanchors

"Airy R. Bean" <me@privacy.net> wrote in message
news:2pge68Fk4nq5U4@uni-berlin.de...
> This will become an increasing problem in Yerp when the
> WEE Waste directive takes hold - no company will be able to
> dispose of old electronic eqpt other than through a licensed
> waste operator, who must in his turn be able to show that he
> has passed it on to similarly licensed people.
>
> Scrap electronics will become a thing of the past for the enthusiast.

This from a summary of the WEE:

"The Waste Electrical and Electronic Equipment Directive (WEEE) aims to minimise the impacts of electrical and electronic equipment on the environment during their life times and when they become waste. It applies to a huge spectrum of products. It encourages and sets criteria for the collection, treatment, recycling and recovery of waste electrical and electronic equipment. It makes producers responsible for financing most of these activities (producer responsibility). Private householders are to be able to return WEEE without charge."

Sounds like they are concerned with the same mess we have here with computers and cells phones ending up in the dump.

Other WEEE info indicated that they are mainly concerned with dangerous chemicles in batteries, etc. It does sound like the inspection process would drive up the price of everything.

If they are trying to minimize the buildup of electronic waste as disposal sites they would probably encourge surplus dealers to take what they could sell. There is a limit to how much the dealers could pay for it. MH

>
> "David" <texas@houston.rr.com> wrote in message
> news:0KnYc.64325$xi6.46905@fe2.texas.rr.com...
> > Alas, Houston has become a wasteland for electronics scrounging from
what
> > I've been able to tell.
>
>

2155. Re: Electronics Club - Time to "pass the knowledge torch"

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-31 10:06:17 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <n4YYc.5351$Mf.2216@fed1read02>
Source record: 23637
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew

"Paul Burridge" <pb@notthisbit.osiris1.co.uk> wrote in message
news:hc56j0hnk0iis90dv56jljlhfhv90pgv7o@4ax.com...
> On Sun, 29 Aug 2004 19:31:04 GMT, "G.Beat"
> <now9spamgb@no.comcast.spam.net> wrote:
>
>>Well its that time of year again, and school has started.
>>
>>Middle schools, high schools and youth organizations (e.g., 4-H, Boy
>>Scouts,
>>Girl Scouts) often look to their communities for assistance in developing
>>"experiential"
>>learning programs and knowledgeable volunteers.
>>
>>Electronics and computers are often at the top of the lists for external
>>assistance by these educational organizations.
>
> Computers (or more likely computer games) might be at the top of the
> list, but kids nowadays don't seem to give a f**k about electronics in
> general. Hardly surprising, given the superficial garbage we force
> feed them via TV, film and "newspapers."

Although I tend to agree with you about the interests of the younger generations, I also have to remember that my parents were probably worried that all their kids wanted to do was mess with them radio gadgets, and who would the world depend on to machine ball bearings? Somehow life stumbles on, and who really needs precision ball bearings anymore? We can use adaptive software to fix the vibrations!

Ed
wb6wsn

2156. Re: Polishing and drilling marble slabs?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-31 16:34:03 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2pjnr7Flmg6aU2@uni-berlin.de>
Source record: 23638

Thanks - that explains it nicely.

"Dave Platt" <dplatt@radagast.org> wrote in message
news:10j6tmrd2k6nf20@corp.supernews.com...
> In article <2pggp1Fk952hU1@uni-berlin.de>, Airy R. Bean <me@privacy.net>
wrote:
> >I forgot the SPC, but that appears to need a differential
> >capacitor that I haven't yet obtained (or made).
> I don't think that's a specific characteristic of the SPC - it seems
> to be true of T tuners in general. The T configuration does provide a
> wide matching range, but in the case of very low-impedance or highly
> reactive loads the "match" may result in extremely high circulating
> currents through the coil, with the resulting high losses. A "T"
> tuner with sufficient reactance in the components may let you
> establish a "match" for a short-circuited load... but you'll end up
> dissipating almost 100% of your power in the coil. The SPC probably
> shares the same characteristic.

2157. Re: ARRL Radio Designer

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-08-31 20:18:51 UTC
From: Lasse SM5GLC <no_email@today.sri>
Message-ID: <n5n9j0lep6svdsvilhrq7g924kuobsk8re@4ax.com>
Source record: 23639

Jim
thanks for a great tip! Downloaded the 2MBsetup-file. Runs great on my
XP machine and I am confident it will be very handy! Never heard of
this one before! Thumbs up!

/Lasse SM5GLC
On Sun, 22 Aug 2004 17:53:54 GMT, "Jim Pennell" <Nospam@killspam.com>
wrote:

> Depending on what you want to do, you might try RFSIMM99 which is a fairly
>powerful S parameter simulator program.
>
> It is free and if you do a search for that name you ought to get a lot of
>sites to download it from.
>
>==========
>
> When I set the passive components to use real world models, I can enter
>the self resonant frequencies and so on from the catalog for the particular
>component I want to use.
>
> Then, running Random Simulation mode, I can find if my design has critical
>components. I like that !!!
>
> The ability to include real world parasitics is a nice part of the
>program, and I use it to keep my designs as tolerant of the actual
>components as possible.
>
>
> Jim Pennell
> N6BIU
>

2158. Re: Houston surplus parts store ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-01 00:29:51 UTC
From: DJboutit <Recordking@Hotmail.com>
Message-ID: <3K8Zc.12017$zE3.4470@newssvr24.news.prodigy.com>
Source record: 23640
Cross-posted to:
rec.radio.amateur.homebrew,sci.electronics.components,rec.antiques.radio+phono,rec.radio.amateur.boatanchors

Charlie's Airwaves is over pirced on almost every thing. Nice place to go and look & repair prices are not that bad. I remeber when the EPO Houston use to sell alot more surplus stuff that was like 3 years ago. Now the only surpul stuff they have is some computer stuff batteries power supplys and generators. I like the epo back in the day not it is just good to go & look you might find something you need. I am also looking for a good surplus electronic store within about 50 or so miles of Houston anybody know of any good ones.

2159. Re: Houston surplus parts store ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-01 00:29:51 UTC
From: DJboutit <Recordking@Hotmail.com>
Message-ID: <3K8Zc.12016$zE3.339@newssvr24.news.prodigy.com>
Source record: 23641
Cross-posted to:
rec.radio.amateur.homebrew,sci.electronics.components,rec.antiques.radio+phono,rec.radio.amateur.boatanchors

Charlie's Airwaves is over pirced on almost every thing. Nice place to go and look & repair prices are not that bad. I remeber when the EPO Houston use to sell alot more surplus stuff that was like 3 years ago. Now the only surpul stuff they have is some computer stuff batteries power supplys and generators. I like the epo back in the day not it is just good to go & look you might find something you need. I am also looking for a good surplus electronic store within about 50 or so miles of Houston anybody know of any good ones.

2160. Re: Houston surplus parts store ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-01 00:30:48 UTC
From: DJboutit <Recordking@Hotmail.com>
Message-ID: <VK8Zc.12041$zE3.3419@newssvr24.news.prodigy.com>
Source record: 23642
Cross-posted to:
rec.radio.amateur.homebrew,sci.electronics.components,rec.antiques.radio+phono,rec.radio.amateur.boatanchors

Charlie's Airwaves is over pirced on almost every thing. Nice place to go and look & repair prices are not that bad. I remeber when the EPO Houston use to sell alot more surplus stuff that was like 3 years ago. Now the only surpul stuff they have is some computer stuff batteries power supplys and generators. I like the epo back in the day not it is just good to go & look you might find something you need. I am also looking for a good surplus electronic store within about 50 or so miles of Houston anybody know of any good ones.

2161. Re: My Radio Shack DX-375 problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-01 01:34:56 UTC
From: Tom Holden <holden_family@sympatico.ca>
Message-ID: <ED9Zc.17054$CG3.964498@news20.bellglobal.com>
Source record: 23643

On the SW bands, it tunes in 5kHz steps. On the MW band it tunes in 9 or 10 kHz steps, subject to your setup. Even though a station may transmit on a frequency between a step, the selectivity is wide enough that the nearest step will provide reception close to what it would be were it tuned right on.

Tom

"Devourment 420" <Devourment74@webtv.net> wrote in message news:19473-413182CB-3@storefull-3231.bay.webtv.net...
> I cant get it to tune into frequencies like 3412 or 3413 or stuff like
> that. only stuff like 3415 and 3500 etc. you know only falls on 5's and
> 10's why wont it go to any 2's or 3's 4's and 6's 7's 8's etc etc?
>

2162. Re: How to bias a MOSFET amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-01 02:29:04 UTC
From: Rich Grise <null@example.net>
Message-ID: <QtaZc.252$UR2.95@trnddc08>
Source record: 23644
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design

keith wrote:

> On Mon, 30 Aug 2004 19:11:01 +0100, Paul Burridge wrote:
>
>> On Mon, 30 Aug 2004 18:53:56 +0100, John Woodgate
>> <jmw@jmwa.demon.contraspam.yuk> wrote:
>>
>>>I read in sci.electronics.design that John Larkin <jjlarkin@highSNIPland
>>>THIStechPLEASEnology.com> wrote (in <7fo6j05rp857et2n7tbqlp12bavl48qrrv@
>>>4ax.com>) about 'How to bias a MOSFET amp?', on Mon, 30 Aug 2004:
>>>>He said surgeon, not sturgeon.
>>>
>>>
>>>But, being male, PB is not even a potential source of caviar.
>>
>> Hey ladies, gimme a break will ya? Don't make your PMS my problem. ;-)
>
> Paul's Miserable Shit?
>
Psychotic Male Syndrome.

2163. Re: European Difficulty - Re: Houston surplus parts store ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-01 02:43:01 UTC
From: "Scott W. Harvey" <NOT_my_true@email.com>
Message-ID: <c9baj059umc27ea2i30cqjoui0p40cqcm0@4ax.com>
Source record: 23646
Cross-posted to:
rec.radio.amateur.homebrew,sci.electronics.components,rec.antiques.radio+phono,rec.radio.amateur.boatanchors

On Tue, 31 Aug 2004 04:59:12 -0500, "truegridtz" <marko@hal-pc.org>
wrote:

>Sounds like they are concerned with the same mess we have here with
>computers and cells phones ending up in the dump.
>
>Other WEEE info indicated that they are mainly concerned with dangerous
>chemicles in batteries, etc. It does sound like the inspection process
>would drive up the price of everything.

If this would force the manufacturers, particularly Chinese ones, to
pay more up front to cover the environmental impact of their
products, then it is a good thing, even if it means consumers will pay
more as well.

For too long, importers of this cheap crap have been permitted to
operate with scant concern about where their products will ultimately
end up. They have been able to price their wares artificially low
because the true cost of manufacturing and ownership is not borne by
them. Why should they care? They don't have to pay the costs of
disposal!

About four to six times a year, I go to our local dump to deposit
refuse that is the result of seasonal cleaning. Every time I am there,
I see an enormous dumpster that is just FILLED FILLED FILLED to over
the top with late-model electronic junk of every description. It makes
me sick.......These items are totally useless albatrosses. No one can
repair them, cannabilization for useful parts is almost impossible,
and disposal in an environmentally acceptable manner is quite
expensive.

IMHO, These items should be put on a giant barge and sent back to the
country of origin with the caveat that a trade embargo will be imposed
against any country that refuses to take them back. Maybe when China,
Mexico, and other cheap-labor countries experience first hand what a
colossal pain it is to deal with the ass end of their product's
mercilessly short life cycles, maybe they won't dump quite so much of
this junk on our shores.

-Scott

DO NOT REPLY TO THIS MESSAGE AT THE EMAIL ADDRESS ABOVE!
Instead, go to the following web page to get my real email address:
http://member.newsguy.com/~polezi/scottsaddy.htm

(This has been done because I am sick of SPAMMERS making my email unusable)

Need a schematic? check out the Schematic Bank at:
http://techpreservation.dyndns.org/schematics/

Archive of alt.binaries.pictures.radio binary postings:
http://techpreservation.dyndns.org/abpr/

2164. 100 MHz Crystal

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-01 03:03:05 UTC
From: pdrunen@aol.com
Message-ID: <20040831230305.04845.00002758@mb-m24.aol.com>
Source record: 23645

Hi Group,

I have a crystal marked 100MHz, it the smaller package found in the CBs.

What I want to do is connect this up to a ECL or Fast TTL and get a 0 to 5 Volt square wave output that can drive 50 ohms with 2.5 volts or more.

Anyone have a good circuit or suggestions?

Tnx de KJ4uo

2165. Re: 100 MHz Crystal

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-01 03:05:53 UTC
From: Uncle Peter <radioconnectionNO@cox.netSPAM>
Message-ID: <o0bZc.124585$Lj.108231@fed1read03>
Source record: 23548

"PDRUNEN" <pdrunen@aol.com> wrote in message
news:20040831230305.04845.00002758@mb-m24.aol.com...
> Hi Group,
>
> I have a crystal marked 100MHz, it the smaller package found in the CBs.
>
> What I want to do is connect this up to a ECL or Fast TTL and get a 0 to 5
Volt
> square wave output that can drive 50 ohms with 2.5 volts or more.
>
> Anyone have a good circuit or suggestions?
>
> Tnx de KJ4uo

It will oscillate at the fundamental, not the marked 100 MHz overtone
frequency. At 100 MHz, I'd guess that's a 7th or 5th overtone cut.
Most likely 7th, 20 MHz is about the limit for fundamental crystals.

Pete

2166. Re: NBFM from DDS chip

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-01 03:11:30 UTC
From: Energy Conserved <energyconserved@sbcglobal.net>
Message-ID: <C5bZc.13961$IM6.6575@newssvr27.news.prodigy.com>
Source record: 23549
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

"MikeN" <mnewman@clear.net.nz> wrote in message
news:1jf5j0dqvqu83v0ebcs4lu07citgrb1v78@4ax.com...
> Hi
>
> Has anyone given thought to producing NBFM using the AD 9854 or
> similar DDS chips, for multiplying or heterodyning up to 2m or 70cm.
>
Texas instruments: TRF4400

Single-Chip RF Transmitter for 433 MHz ISM Band
420-MHz to 450-MHz Operation
FM/FSK Operation for Transmit
24-Bit Direct Digital Synthesizer (DDS) With 11-Bit DAC

regards

2167. Just a test to ck my name change.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-01 05:05:27 UTC
From: Mr Neon <mRrEnMeOoVnE@adelphia.net>
Message-ID: <tMcZc.38536$p9.1471@fe47.usenetserver.com>
Source record: 23551
Cross-posted to:
rec.radio.amateur.homebrew,sci.electronics.components,rec.antiques.radio+phono,rec.radio.amateur.boatanchors

Just a test to ck my name change.

2168. Re: European Difficulty - Re: Houston surplus parts store ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-01 05:11:50 UTC
From: truegridtz <marko@hal-pc.org>
Message-ID: <41355833$0$449$a726171b@news.hal-pc.org>
Source record: 23550
Cross-posted to:
rec.radio.amateur.homebrew,sci.electronics.components,rec.antiques.radio+phono,rec.radio.amateur.boatanchors

"Scott W. Harvey" <NOT_my_true@email.com> wrote in message
news:c9baj059umc27ea2i30cqjoui0p40cqcm0@4ax.com...
> On Tue, 31 Aug 2004 04:59:12 -0500, "truegridtz" <marko@hal-pc.org>
> wrote:
>
> >Sounds like they are concerned with the same mess we have here with
> >computers and cells phones ending up in the dump.
> >
> >Other WEEE info indicated that they are mainly concerned with dangerous
> >chemicles in batteries, etc. It does sound like the inspection process
> >would drive up the price of everything.
>
> If this would force the manufacturers, particularly Chinese ones, to
> pay more up front to cover the environmental impact of their
> products, then it is a good thing, even if it means consumers will pay
> more as well.
>
> For too long, importers of this cheap crap have been permitted to
> operate with scant concern about where their products will ultimately
> end up. They have been able to price their wares artificially low
> because the true cost of manufacturing and ownership is not borne by
> them. Why should they care? They don't have to pay the costs of
> disposal!
>
> About four to six times a year, I go to our local dump to deposit
> refuse that is the result of seasonal cleaning. Every time I am there,
> I see an enormous dumpster that is just FILLED FILLED FILLED to over
> the top with late-model electronic junk of every description. It makes
> me sick.......These items are totally useless albatrosses. No one can
> repair them, cannabilization for useful parts is almost impossible,
> and disposal in an environmentally acceptable manner is quite
> expensive.
>
> IMHO, These items should be put on a giant barge and sent back to the
> country of origin with the caveat that a trade embargo will be imposed
> against any country that refuses to take them back. Maybe when China,
> Mexico, and other cheap-labor countries experience first hand what a
> colossal pain it is to deal with the ass end of their product's
> mercilessly short life cycles, maybe they won't dump quite so much of
> this junk on our shores.

I doubt that the Chinese are really worried about what we want. Communists
are not known for having much of a conscience.

I recall seeing a TV documentary months ago about the recycling of old computers. They bust them all up and sort the plastic, etc. Seems they were breaking even or even making a profit. The problem is getting them before people throw them in the dump. This was a huge operation with conveyors belts and big piles of dead or near dead computers. I think they had something like what the tree trimmers haul behind their trucks. Grinds them up into little recyclable chunks....sort of like spam. Grunt labor stands there all day by the conveyor belt with Tylenol and rubber gloves. At least they can claim they are in the computer industry. The last word in computer technology. <MH
>
> -Scott
>
>
>
> DO NOT REPLY TO THIS MESSAGE AT THE EMAIL ADDRESS ABOVE!
> Instead, go to the following web page to get my real email address:
> http://member.newsguy.com/~polezi/scottsaddy.htm
> (This has been done because I am sick of SPAMMERS making my email unusable)
>
> Need a schematic? check out the Schematic Bank at:
> http://techpreservation.dyndns.org/schematics/
>
> Archive of alt.binaries.pictures.radio binary postings:
> http://techpreservation.dyndns.org/abpr/

2169. Re: European Difficulty - Re: Houston surplus parts store ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-01 05:51:43 UTC
From: Jeffrey D Angus <jangus@socal.rr.com>
Message-ID: <PrdZc.24632$Qa4.19323@twister.socal.rr.com>
Source record: 23552
Cross-posted to:
rec.radio.amateur.homebrew,sci.electronics.components,rec.antiques.radio+phono,rec.radio.amateur.boatanchors

Scott W. Harvey wrote:
> IMHO, These items should be put on a giant barge and sent back to the
> country of origin with the caveat that a trade embargo will be imposed
> against any country that refuses to take them back. Maybe when China,
> Mexico, and other cheap-labor countries experience first hand what a
> colossal pain it is to deal with the ass end of their product's
> mercilessly short life cycles, maybe they won't dump quite so much of
> this junk on our shores.

Funny you should mention that, That's where a LOT of our surplus
(i.e. garbage) computers end up. They've got a growing problem in
China now about the recycling centers causing massive ecological
damage to the towns that they recycle in. From burning plastic
insulation off to salvage copper, and the chemical sludge from
stripping gold and silver plating.

Jeff

--
"They that can give up essential liberty to obtain a little temporary
safety deserve neither liberty nor safety." Benjamin Franklin
"A life lived in fear is a life half lived."
Tara Morice as Fran, from the movie "Strictly Ballroom"
http://www.grendel.com

2170. Re: Just a test to ck my name change.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-01 06:04:45 UTC
From: Steven Dinius <10kc@fmtc.com>
Message-ID: <10japjpinofi3cf@corp.supernews.com>
Source record: 23554
Cross-posted to:
rec.radio.amateur.homebrew,sci.electronics.components,rec.antiques.radio+phono,rec.radio.amateur.boatanchors

Yes, it's likely you. The adelphia.com is throwing me because 4ax and
uni-berlin.de are there, but not supernews.

No COX either.

Paul Pinyon?

"Mr Neon" <mRrEnMeOoVnE@adelphia.net> wrote in message
news:tMcZc.38536$p9.1471@fe47.usenetserver.com...
> Just a test to ck my name change.
>
>
>

2171. Re: Just a test to ck my name change.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-01 06:06:07 UTC
From: Jim Menning <jmSePnAnMing@SnPeAwM.rr.com>
Message-ID: <RDdZc.29942$sO2.22396@twister.rdc-kc.rr.com>
Source record: 23555
Cross-posted to:
rec.radio.amateur.homebrew,sci.electronics.components,rec.antiques.radio+phono,rec.radio.amateur.boatanchors

"Mr Neon" <mRrEnMeOoVnE@adelphia.net> wrote in message
news:tMcZc.38536$p9.1471@fe47.usenetserver.com...
> Just a test to ck my name change.
>

Much more appropriate!

;o)

jim menning

2172. Re: Just a test to ck my name change.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-01 06:06:44 UTC
From: Steven Dinius <10kc@fmtc.com>
Message-ID: <10japnh7cfrg41d@corp.supernews.com>
Source record: 23556
Cross-posted to:
rec.radio.amateur.homebrew,sci.electronics.components,rec.antiques.radio+phono,rec.radio.amateur.boatanchors

Naah, I could get it but I'm not going to archive tonight.
\
"Mr Neon" <mRrEnMeOoVnE@adelphia.net> wrote in message
news:tMcZc.38536$p9.1471@fe47.usenetserver.com...
> Just a test to ck my name change.
>
>
>

2173. Re: Just a test to ck my name change.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-01 06:08:53 UTC
From: Steven Dinius <10kc@fmtc.com>
Message-ID: <10japri6nudic71@corp.supernews.com>
Source record: 23557
Cross-posted to:
rec.radio.amateur.homebrew,sci.electronics.components,rec.antiques.radio+phono,rec.radio.amateur.boatanchors

"Jim Menning" <jmSePnAnMing@SnPeAwM.rr.com> wrote in message
news:RDdZc.29942$sO2.22396@twister.rdc-kc.rr.com...
>
> "Mr Neon" <mRrEnMeOoVnE@adelphia.net> wrote in message
> news:tMcZc.38536$p9.1471@fe47.usenetserver.com...
> > Just a test to ck my name change.
> >
>
> Much more appropriate!
>
> ;o)
>
> jim menning

If you say so.

2174. Re: European Difficulty - Re: Houston surplus parts store ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-01 06:11:52 UTC
From: truegridtz <marko@hal-pc.org>
Message-ID: <41356641$0$451$a726171b@news.hal-pc.org>
Source record: 23553
Cross-posted to:
rec.radio.amateur.homebrew,sci.electronics.components,rec.antiques.radio+phono,rec.radio.amateur.boatanchors

"Jeffrey D Angus" <jangus@socal.rr.com> wrote in message
news:PrdZc.24632$Qa4.19323@twister.socal.rr.com...
>
>
> Scott W. Harvey wrote:
> > IMHO, These items should be put on a giant barge and sent back to the
> > country of origin with the caveat that a trade embargo will be imposed
> > against any country that refuses to take them back. Maybe when China,
> > Mexico, and other cheap-labor countries experience first hand what a
> > colossal pain it is to deal with the ass end of their product's
> > mercilessly short life cycles, maybe they won't dump quite so much of
> > this junk on our shores.
>
> Funny you should mention that, That's where a LOT of our surplus
> (i.e. garbage) computers end up. They've got a growing problem in
> China now about the recycling centers causing massive ecological
> damage to the towns that they recycle in. From burning plastic
> insulation off to salvage copper, and the chemical sludge from
> stripping gold and silver plating.
>
> Jeff

One of the main reasons that we never seem to get sufficient control of our
pollution problem is the lack of pollution control in developing nations.
We must compete and pollution control is expensive.

Sacrificing human health for corporate profits is the global format. MH

> --
> "They that can give up essential liberty to obtain a little temporary
> safety deserve neither liberty nor safety." Benjamin Franklin
> "A life lived in fear is a life half lived."
> Tara Morice as Fran, from the movie "Strictly Ballroom"
> http://www.grendel.com
>

2175. Re: 100 MHz Crystal

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-01 07:16:31 UTC
From: Leon Heller <leon_heller@hotmail.com>
Message-ID: <4135774d$0$20251$cc9e4d1f@news-text.dial.pipex.com>
Source record: 23559

```
" Uncle Peter" <radioconnectionNO@cox.netSPAM> wrote in message
news:o0bZc.124585$Lj.108231@fed1read03...
>
> "PDRUNEN" <pdrunen@aol.com> wrote in message
> news:20040831230305.04845.00002758@mb-m24.aol.com...
> > Hi Group,
> >
> > I have a crystal marked 100MHz, it the smaller package found in the CBs.
> >
> > What I want to do is connect this up to a ECL or Fast TTL and get a 0 to
5
> Volt
> > square wave output that can drive 50 ohms with 2.5 volts or more.
> >
> > Anyone have a good circuit or suggestions?
> >
> > Tnx de KJ4uo
>
> It will oscillate at the fundamental, not the marked 100 MHz overtone
> frequency. At 100 MHz, I'd guess that's a 7th or 5th overtone cut.
> Most likely 7th, 20 MHz is about the limit for fundamental crystals.

That used to be the case, but 40 MHz fundamental crystals have been
available for some time. I've got some.

Leon
```

2176. Re: My Radio Shack DX-375 problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-01 07:18:26 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <ghpaj0hkhrmp18o2s8e3l0baqnmtluvc3v@4ax.com>
Source record: 23558

On 29 Aug 2004 18:24:11 GMT, drwxr-xr-x <bit-bucket@config.com> wrote:

>> AM shortwave broadcast stations are spaced at 5kHz intervals...
>
>In your country, perhaps.

If you look at the WRTH _shortwave_ frequency list, much more than 95 % of the stations are spaced at 5 kHz multiples, as the ITU requires them to be.

Those that are not, seems to have problems with their frequency stability and may drift somewhere between. These are usually small private stations, in which the equipment has been hacked up by some local technician.

Paul OH3LWR

2177. Re: 100 MHz Crystal

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-01 08:38:14 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <eg2bj011mb4cmeb85jitrp42oe399kig89@4ax.com>
Source record: 23560

On Tue, 31 Aug 2004 23:05:53 -0400, " Uncle Peter"
<radioconnectionNO@cox.netSPAM> wrote:

>It will oscillate at the fundamental, not the marked 100 MHz overtone
>frequency. At 100 MHz, I'd guess that's a 7th or 5th overtone cut.
>Most likely 7th, 20 MHz is about the limit for fundamental crystals.
>
So how does one tell if the xtal is fundamental or overtone? Not for
xtals marked 100Mhz, obviously, but for much lower frequencies which
could be either..
--

"What is now proved was once only imagin'd." - William Blake, 1793.

2178. Re: European Difficulty - Re: Houston surplus parts store ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-01 09:22:23 UTC
From: maarten@panic.xx.tudelft.nl
Message-ID: <ch44cf$1td$4@news.tudelft.nl>
Source record: 23561
Cross-posted to:
rec.radio.amateur.homebrew,sci.electronics.components,rec.antiques.radio+phono,rec.radio.amateur.boatanchors

In rec.antiques.radio+phono Scott W. Harvey <NOT_my_true@email.com> wrote:
> About four to six times a year, I go to our local dump to deposit
> refuse that is the result of seasonal cleaning. Every time I am there,
> I see an enormous dumpster that is just FILLED FILLED FILLED to over
> the top with late-model electronic junk of every description. It makes
> me sick.......These items are totally useless albatrosses. No one can
> repair them, cannabilization for useful parts is almost impossible,
> and disposal in an environmentally acceptable manner is quite
> expensive.

I bet at least half of those is easily repairable ($5 in parts, an hour labour at most). Most people don't consider repairing because it is cheap to buy a new one. It's not the bad design per se. Just make the stuff more expensive (import taxes) and demand a 3 year warranty or so.

> IMHO, These items should be put on a giant barge and sent back to the
> country of origin with the caveat that a trade embargo will be imposed
> against any country that refuses to take them back. Maybe when China,
> Mexico, and other cheap-labor countries experience first hand what a
> colossal pain it is to deal with the ass end of their product's
> mercilessly short life cycles, maybe they won't dump quite so much of
> this junk on our shores.

I can't say for sure whther this would work (items may just be dumped into the ocean), but it could be an idea.

Met vriendelijke groet,

Maarten Bakker.

2179. Re: European Difficulty - Re: Houston surplus parts store ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-01 09:33:30 UTC
From: maarten@panic.xx.tudelft.nl
Message-ID: <ch451a$2ho$1@news.tudelft.nl>
Source record: 23562
Cross-posted to:
rec.radio.amateur.homebrew,sci.electronics.components,rec.antiques.radio+phono,rec.radio.amateur.boatanchors

In rec.antiques.radio+phono truegridtz <marko@hal-pc.org> wrote:
> I doubt that the Chinese are really worried about what we want. Communists
> are not known for having much of a conscience.

I think lack of conscience is not a communist problem per se. This having been said, I know that at least some European communist countries, tried to make their design and manufacturing as solid as possible. Because in their philosophy there was no such thing as unemployment, and there often was a shortage of supplies, there was no reason not to put a good amount of engineering into their stuff. I can confirm 2 East-German black and white TV sets running since 1988 without needing repairs (and many more of those sets in continuous use in the Prague metro, if they were not drowned 2 years ago). Some radio collectors can confirm as well that East German and Czech radio's seem rather well built (alltough I have not seen too many of those, but what I have seen was nice).

Met vriendelijke groet,

Maarten Bakker.

2180. Re: 100 MHz Crystal

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-01 10:04:49 UTC
From: Fred Bartoli <fred._canxxxel_this_bartoli@RemoveThatAlso_free.fr_AndThisToo>
Message-ID: <41359e7d$0$31746$626a14ce@news.free.fr>
Source record: 23563

"Leon Heller" <leon_heller@hotmail.com> a crit dans le message de
news:4135774d$0$20251$cc9e4d1f@news-text.dial.pipex.com...
> " Uncle Peter" <radioconnectionNO@cox.netSPAM> wrote in message
> news:o0bZc.124585$Lj.108231@fed1read03...
> >
> > It will oscillate at the fundamental, not the marked 100 MHz overtone
> > frequency. At 100 MHz, I'd guess that's a 7th or 5th overtone cut.
> > Most likely 7th, 20 MHz is about the limit for fundamental crystals.
>
> That used to be the case, but 40 MHz fundamental crystals have been
> available for some time. I've got some.
>

I guess this is not for the garden variety crystals, but I've seen (can't
remember where) that IC etching technology has been applied to crystals
manufacturing which resulted in crystals of over 200MHz fundamental
frequency.

--
Thanks,
Fred.

2181. Re: GOT BUGS?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-01 15:12:50 UTC
From: klf <240dl@jl.com>
Message-ID: <SFlZc.174$Dx4.98@newsfe4-gui.ntli.net>
Source record: 23564

I would like to see the company sign a contract first stating all bugs would
be detected and cleared - then sue the hell out of them!
It's probably a wannabe 007 that has bought a bug detector, which wouldnt
work too well. Most information is from insiders, bugs went out 20 years
ago.

"Scott" <acepilot@bloomer.net> wrote in message
news:X_SdnSjxcPq2hrLcRVn-rA@bright.net...
> What about IR transmitters? Spectrum Analyzer useless at light
> frequencies.
>
>
>
> SurveillanceInc wrote:
>
>> GOT BUGS?
>> { YOU KNOW- THE KIND THAT HEAR AND SEE EVERYTHING YOU DO}
>>
>> We find them fast and dispatch the little buggers super fast. We employ
>> government level Spectrum Analyzers. We sweep to 22-GHZ and above if
>> necessary. We use real TDR's (Time Domain Reflectometers) to sweep your
>> phone
>> lines. We also sweep limos and private jets, cars... And of course, we
>> offer
>> complete computer forensics to sweep your computer for the insidious
>> SPYWARE
>> which records your every email, keystroke, picture, instant message,
>> virtually
>> everything on your computer and summarily sends it back secretly to its
>> waiting
>> master. SPYWARE is so sneaky that it can and will change directories to
>> avoid
>> being discovered. We will find and execute the slimy little buggers and
>> install a program on your computer to keep them out for good. We're pros
>> with
>> the right equipment to do the job right the first time. You won't find
>> any SPY
>> STORE toys here. No little mysterious black boxes with long antennas and
>> a guy
>> running around chasing mysterious signals in the air. We utilize
>> SPECTRUM
>> ANALYZERS which you could expect to pay $30,000 to $50,000 for a lab
>> grade
>> unit. The same applies to our TDR's- all pro equipment, period. Ask

>> about our
>> SPECIAL- $99.00 SWEEP for RF bugs and COVERT MICRO VIDEO CAMERAS. UP TO
>> THREE
>> ROOMS, Los Angeles area only. Email SurveillanceInc@aol.com
>>
>>
>>
>

Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.746 / Virus Database: 498 - Release Date: 31/08/2004

2182. Re: 100 MHz Crystal

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-01 16:54:24 UTC
From: k7itm@aol.com
Message-ID: <3200347.0409010854.117f638f@posting.google.com>
Source record: 23565

Paul Burridge <pb@notthisbit.osiris1.co.uk> wrote in message
news:<eg2bj011mb4cmeb85jitrp42oe399kig89@4ax.com>...
> On Tue, 31 Aug 2004 23:05:53 -0400, " Uncle Peter"
> <radioconnectionNO@cox.netSPAM> wrote:
>
> >It will oscillate at the fundamental, not the marked 100 MHz overtone
> >frequency. At 100 MHz, I'd guess that's a 7th or 5th overtone cut.
> >Most likely 7th, 20 MHz is about the limit for fundamental crystals.
> >
> So how does one tell if the xtal is fundamental or overtone? Not for
> xtals marked 100Mhz, obviously, but for much lower frequencies which
> could be either..

Easy. Look for resonances near 33.3MHz, 20MHz and 14.3MHz. Or...put
it in an oscillator circuit which favors fundamental mode and see
where it oscillates.

Cheers,
Tom

2183. Re: 100 MHz Crystal

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-01 16:59:49 UTC
From: k7itm@aol.com
Message-ID: <3200347.0409010859.3ff470f7@posting.google.com>
Source record: 23566

pdrunen@aol.com (PDRUNEN) wrote in message
news:<20040831230305.04845.00002758@mb-m24.aol.com>...
> Hi Group,
>
> I have a crystal marked 100MHz, it the smaller package found in the CBs.
>
> What I want to do is connect this up to a ECL or Fast TTL and get a 0 to 5 Volt
> square wave output that can drive 50 ohms with 2.5 volts or more.
>
> Anyone have a good circuit or suggestions?

Suggestion: just get a 100MHz TTL oscillator. I believe Harold
offered you one last time you posted about 100MHz xtals a couple years
ago. ECL won't have 2.5V output, but I could supply you with a nice
little PECL 100MHz VCXO that you could easily trim to "exactly"
100MHz. It will deliver about 800mV p-p into 50 ohms.

Cheers,
Tom

2184. Re: GOT BUGS?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-01 18:22:44 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <ch5469$73u$1@newshost.mot.com>
Source record: 23567

I particularly like the "government level" spectrum analyzers

--
Steve N, K,9;d, c. i My email has no u's.

"klf" <240dl@jl.com> wrote in message
news:SFlZc.174$Dx4.98@newsfe4-gui.ntli.net...
> I would like to see the company sign a contract first stating all bugs
would
> be detected and cleared - then sue the hell out of them!
> It's probably a wannabe 007 that has bought a bug detector, which wouldnt
> work too well. Most information is from insiders, bugs went out 20 years
> ago.
>
> "Scott" <acepilot@bloomer.net> wrote in message
> news:X_SdnSjxcPq2hrLcRVn-rA@bright.net...
> > What about IR transmitters? Spectrum Analyzer useless at light
> > frequencies.
> >
> >
> >
> > SurveillanceInc wrote:
> >
> >> GOT BUGS?
> >> { YOU KNOW- THE KIND THAT HEAR AND SEE EVERYTHING YOU DO}
> >>
> >> We find them fast and dispatch the little buggers super fast. We
employ
> >> government level Spectrum Analyzers. We sweep to 22-GHZ and above if
> >> necessary. We use real TDR's (Time Domain Reflectometers) to sweep
your
> >> phone
> >> lines. We also sweep limos and private jets, cars... And of course,
we
> >> offer
> >> complete computer forensics to sweep your computer for the insidious
> >> SPYWARE
> >> which records your every email, keystroke, picture, instant message,
> >> virtually
> >> everything on your computer and summarily sends it back secretly to its
> >> waiting
> >> master. SPYWARE is so sneaky that it can and will change directories
to
> >> avoid
> >> being discovered. We will find and execute the slimy little buggers

and
> >> install a program on your computer to keep them out for good. We're
pros
> >> with
> >> the right equipment to do the job right the first time. You won't find
> >> any SPY
> >> STORE toys here. No little mysterious black boxes with long antennas
and
> >> a guy
> >> running around chasing mysterious signals in the air. We utilize
> >> SPECTRUM
> >> ANALYZERS which you could expect to pay $30,000 to $50,000 for a lab
> >> grade
> >> unit. The same applies to our TDR's- all pro equipment, period. Ask
> >> about our
> >> SPECIAL- $99.00 SWEEP for RF bugs and COVERT MICRO VIDEO CAMERAS. UP TO
> >> THREE
> >> ROOMS, Los Angeles area only. Email SurveillanceInc@aol.com
> >>
> >>
> >>
> >
>
>
> ---
> Outgoing mail is certified Virus Free.
> Checked by AVG anti-virus system (http://www.grisoft.com).
> Version: 6.0.746 / Virus Database: 498 - Release Date: 31/08/2004
>
>

2185. Re: 100 MHz Crystal

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-01 19:09:16 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <ch56ti$7ic$1@newshost.mot.com>
Source record: 23568

"Paul Burridge" <pb@notthisbit.osiris1.co.uk> wrote in message
news:eg2bj011mb4cmeb85jitrp42oe399kig89@4ax.com...
> On Tue, 31 Aug 2004 23:05:53 -0400, " Uncle Peter"
> <radioconnectionNO@cox.netSPAM> wrote:
>
> >It will oscillate at the fundamental, not the marked 100 MHz overtone
> >frequency. At 100 MHz, I'd guess that's a 7th or 5th overtone cut.
> >Most likely 7th, 20 MHz is about the limit for fundamental crystals.
> >
> So how does one tell if the xtal is fundamental or overtone? Not for
> xtals marked 100Mhz, obviously, but for much lower frequencies which
> could be either..

I have used fundamental cut crystals on their overtones and overtone
crystals on their fundamental. NOTE, the frequencies will NOT be exact
harmonics/multiples. Somewhere I have information giving the typical
differences.

The crystal Colpitts is one sure bet. Stay away from circuits with
inductors and tuned circuits for a fundamental oscillator. Some IC
oscillators can give misleading results. They can pound the rock too hard.

here's some circuits thanks to GOOGLE:

This type is my favorite. Used in just about all Motorola channel elements
of Motrac through Micor and probably beyond.
http://homepage.tinet.ie/~ei9gq/tx_circ.html
Though seems to me, the lower cap should be 100 rather than 220pf, but they
are REALLY non critical. One page I found had them both at 1000pf.

Fig 7 looks the same:
http://www.northcountryradio.com/PDFs/column007.pdf

Discover Circuits also has a lot of circuits.
http://www.discovercircuits.com/O/o-crystal.htm

--
Steve N, K,9;d, c. i My email has no u's.

P.S. the Educypedia has lots of circuit ideas, in general
http://users.telenet.be/educypedia/electronics/analogosciltypes.htm

If you do your own search, THIS is NOT a Colpitts crystal osc...
http://www.designnotes.com/CIRCUITS/colpitts.htm

2186. Re: 100 MHz Crystal

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-01 21:14:12 UTC
From: mrmonett@yahoo.com
Message-ID: <7e4a2a11.0409011314.2d05bb13@posting.google.com>
Source record: 23569

"Fred Bartoli" <fred._canxxxel_this_bartoli@RemoveThatAlso_free.fr_AndThisToo> wrote in message news:<41359e7d$0$31746$626a14ce@news.free.fr>...
> "Leon Heller" <leon_heller@hotmail.com> a ï¿½crit dans le message de
> news:4135774d$0$20251$cc9e4d1f@news-text.dial.pipex.com...
> > " Uncle Peter" <radioconnectionNO@cox.netSPAM> wrote in message
> > news:o0bZc.124585$Lj.108231@fed1read03...
> > >
> > > It will oscillate at the fundamental, not the marked 100 MHz overtone
> > > frequency. At 100 MHz, I'd guess that's a 7th or 5th overtone cut.
> > > Most likely 7th, 20 MHz is about the limit for fundamental crystals.
> > >
> > That used to be the case, but 40 MHz fundamental crystals have been
> > available for some time. I've got some.
> >
>
> I guess this is not for the garden variety crystals, but I've seen (can't
> remember where) that IC etching technology has been applied to crystals
> manufacturing which resulted in crystals of over 200MHz fundamental
> frequency.

Very good memory! The crystals are called inverted mesa, and can go above 200MHz in fundamental mode. Most crystal manufacturers supply them. The prices were over $300 when I first started looking, but quickly dropped to the $30 - $40 range in 2001. I don't know the current prices, but expect they will be even lower.

Here are brief extracts describing the improved jitter performance, some performance degredation to look out for, and two typical ads.

Unfortunately, at roughly 40 MHz, conventional crystal oscillators hit a frequency ceiling.

A crystal's frequency limitation stems from the relationship between resonant frequency and crystal thickness. The ratio is approximately T = 60/F, where T is crystal thickness in thousandths of an inch and F is fundamental frequency in megahertz. The thickness of a crystal designed for 40 MHz is therefore 60/40 = 0.0015 in. = 1.5 mil. Crystals thinner than this 1.5-mil threshold are too fragile to withstand the mechanical stresses of oscillator production.

Several available techniques outflank the 40-MHz limit. Using these methods, commercial crystal oscillators can generate outputs of up to several hundred megahertz. Yet there's still a significant gap between the crystal-stabilized reference frequencies available and

the needs of today's Gigabit Ethernet, ATM, and SONET systems. In these applications, the datacom equipment builder must multiply, or upconvert, the crystal-oscillator reference frequencies to reach the gigahertz range.

Frequency multiplication tends to increase jitter as well as frequency, however. To minimize jitter at the gigahertz level, equipment builders have to start with super-low-jitter reference oscillators. But the higher the reference frequency climbs, the lower the final gigahertz signal's jitter. Naturally, crystal-oscillator manufacturers are developing generations of clock oscillators that raise frequency while simultaneously reducing jitter. Doing so requires advances in quartz-crystal technology, oscillator circuit design, packaging, and manufacturing (see "Oscillators Are More Analog Than Digital," p. 118).

Those manufacturers have long depended on two basic techniques, overtone and multiplier, to overcome an ordinary crystal's 40-MHz frequency ceiling. In the past year, a third and until now theoretical concept - inverted mesa - has proven eminently practical for achieving high oscillator frequencies (Fig. 1).

http://www.elecdesign.com/Files/29/1256/Figure_01.gif

http://www.elecdesign.com/Articles/ArticleID/1256/1256.html

The inverted-mesa crystal paves a route to high oscillator frequency, seemingly in defiance of a crystal's "thinness" limitation. Inverted-mesa oscillators can resonate a region of quartz only 0.00024-in. thick for 250-MHz fundamental operation. This value represents performance anticipated in the near future.

The crystal is created by etching a "well" in a quartz crystal blank (Fig. 1, again). The bottom of the well is the very thin area of quartz needed for high-frequency resonance. The thicker region surrounding it provides mechanical support and electrical connections. Both sides of the crystal are gold-plated to deliver excitation energy to the resonant region. That plating is continued to the crystal's outer edges for bonding to connecting wires.

Inverted-mesa oscillators operate the crystal at its fundamental, albeit high, frequency. Today's designs exhibit jitter below 5-ps rms. Because the technology is new, future improvements are promised in both jitter and frequency. The jitter performance of the overtone and inverted-mesa oscillators definitely stands out when compared with the multiplier type (Fig. 3).

http://www.elecdesign.com/Files/29/1256/Figure_03.jpg

http://www.elecdesign.com/Articles/Index.cfm?ArticleID=1256&pg=2

Inverted-mesa crystals

A new manufacturing technique uses chemical milling to etch the crystal thinner than can be done with conventional lapping machines. The devices produced in this process - inverted-mesa crystals - oscillate at higher frequencies than traditional quartz crystals, reducing the number of multiplications needed to achieve a given frequency. Fewer multiplications means reduced phase noise.

Inverted-mesa crystals can produce fundamental frequencies up to 200 MHz and higher. The two tradeoffs are a higher price and a faster aging rate compared to conventional AT-cut crystals. To make inverted-mesa crystals, the circumference of the crystal blank is masked off during etching, and the periphery is left thicker and stronger. The result looks like a snare drum. Typical diameters are 0.200 in. and thickness isless than 0.002 in.

The chemical milling process triples the price of inverted-mesa crystals. And because they're thinner, inverted-mesa crystals are more susceptible to packaged contaminants, which are always present to one degree or another. Inside the package, contaminants can deposit on this very thin crystal and affect its resonant frequency.

Because there is so little mass to the etched crystal, any contaminating particles are proportionately larger and have greater effect than they would on regular AT- or BT-cut units. This accelerates the crystal's aging characteristics. But in today's higher-bandwidth environment, these two tradeoffs are no impediment to achieving the higher performance now demanded of VCXO's.

http://www.raltron.com/corp/pdfspecs/news_inverted.pdf (42k pdf file)

200-MHz VCXO Employs Inverted Mesa Crystal

June 2001

By utilizing an inverted mesa quartz crystal, the VC-8000 VCXO combines higher frequency, lower noise, increased stability, wider pullability range, and faster on/off times than is possible with an ordinary quartz crystal. The device works as a signal-enhancing filter for asynchronous communication systems that embed their own content data, clock, and error-correction data. Acting like a high-Q filter, the unit re-generates the incoming signal from scratch and stops noise, jitter, or other perturbations from getting through, resulting in a re-generated signal that is noise free. A voltage controlled reference output frequency is up to 200 MHz, with less than 1 ps jitter, and an overall frequency stability of ï¿½30 ppm. Prices are from $39 to $49 each/10,000.

http://www.raltron.com/

High frequency fundamental-mode crystals are increasing in demand for applications such as precision high speed clocks, VCXOs and VCTCXOs. However, conventional crystal processing utilizing flat quartz blanks has limited the available frequency range to 55 MHz. Using higher quality, "swept" quartz, it has long been possible to produce fundamental-mode inverted mesa crystals with frequencies extending past 200 MHz. However, the higher cost of materials, coupled with slower production throughput have made these resonators undesirable for use in large volume applications. As telecommunication equipment designers continue to demand oscillators that operate at higher frequencies and still retain the smallest possible size and tightest stability, manufacturers have scrambled to fill this growing market. With the introduction of Champions CIM-32 Series, designers can accomplish these goals without breaking their budgets.

http://www.brookdale.com/mesa.htm

Best

Mike

2187. Re: 100 MHz Crystal

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-01 21:50:13 UTC
From: Fred Bartoli <fred._canxxxel_this_bartoli@RemoveThatAlso_free.fr_AndThisToo>
Message-ID: <413643d1$0$28841$636a15ce@news.free.fr>
Source record: 23570

"Mike Monett" <mrmonett@yahoo.com> a crit dans le message de
news:7e4a2a11.0409011314.2d05bb13@posting.google.com...
> "Fred Bartoli"
<fred._canxxxel_this_bartoli@RemoveThatAlso_free.fr_AndThisToo> wrote in
message news:<41359e7d$0$31746$626a14ce@news.free.fr>...
<snipped lots of good stuff>

```
Nice compilation.
Thanks for this.

--
Thanks,
Fred.
```

2188. Re: European Difficulty - Re: Houston surplus parts store ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-01 22:13:11 UTC
From: No Spam <"No Spam"@Nospama.net>
Message-ID: <ifgU75G3LLdo-pn2-tgKq8q2XD5m7@localhost>
Source record: 23571
Cross-posted to:
sci.electronics.components,rec.antiques.radio+phono,rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew

On Wed, 1 Sep 2004 09:33:30 UTC, maarten@panic.xx.tudelft.nl wrote:

> I think lack of conscience is not a communist problem per se. This
> having been said, I know that at least some European communist
> countries, tried to make their design and manufacturing as solid as
> possible. Because in their philosophy there was no such thing as
> unemployment, and there often was a shortage of supplies, there was no
> reason not to put a good amount of engineering into their stuff. I can
> confirm 2 East-German black and white TV sets running since 1988 without
> needing repairs (and many more of those sets in continuous use in the
> Prague metro, if they were not drowned 2 years ago). Some radio
> collectors can confirm as well that East German and Czech radio's seem
> rather well built (alltough I have not seen too many of those, but what
> I have seen was nice).

What next? Will we be pining away for East German and Soviet era
products like the Trabant, Lada, ZIL?

It's one thing to restore and operate an HT-32B/SX-115 but East
German consumer electronics?

The solution to the trash and recycling problem is a bit more
attention to repair and disposal on the design and manufacturing
side, and a recycling deposit.

If the stuff were easier to fix and upgrade, it wouldn't be pitched
out so quickly.

Can't do much about cell phones, portable CD players, and other
smallish items but the big stuff should be fixable or recycleable.

If new consumer electronics were tagged with a barcoded serial
number and a $1, $5, or $10 deposit levied on each item. The
recycling industry could pay people to bring the stuff back.

de ah6gi/4 - No chance of my 75S-1, SB-303, or SX-100 ever
going to the landfill.

2189. Re: Electronics Club - Time to "pass the knowledge torch"

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-01 23:37:01 UTC
From: klf <240dl@jl.com>
Message-ID: <x2tZc.356$Dx4.142@newsfe4-gui.ntli.net>
Source record: 23572
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew

You'll get a name for yourself for taking such an interest.

"Steven Dinius" <10kc@fmtc.com> wrote in message
news:10j5c16ghgjt2d3@corp.supernews.com...
> PS If he manages to finish it I've promised him a 1960's Sharp SS
> multiband
> portable. His aptitude is marvelous.
>
> "Steven Dinius" <10kc@fmtc.com> wrote in message
> news:10j5brdrll7kk2f@corp.supernews.com...
>> "David Stinson" <arc5@ix.netcom.com> wrote in message
>> news:MrxYc.818$Gr2.71@trnddc07...
>> > "Pass the knowledge torch" to today's kids
>> > and they'll light their crack pipe with it...
>>
>> I watched a 16 year-old nearly fix a tough mechanical problem with a
>> Rowe/AMI stereo jukebox and he was halfway there towards fixing my IF
> coils.
>> Bite your tongue.
>>
>>
>
>

Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.746 / Virus Database: 498 - Release Date: 01/09/2004

2190. Parts for sale still

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-02 00:29:32 UTC
From: Brian - KB9BVN <kb9bvn@arrl.net>
Message-ID: <MPtZc.913$Wv5.436@newsread3.news.atl.earthlink.net>
Source record: 23573

I still have a few sets of my previous offer left for anyone that needs
them.

50 pcs 2N3906 PNP
50 pcs PN2222A NPN
100pcs 1N4148

All for $10 including shipping to the US

Canadian orders add an additional $1.00

Paypal to brian@iquest.net

Or snail mail to my QRZ address.

72 de KB9BVN

--
==
Agnus dei, qui tollis peccata mundi, dona nobis Pacem.
==
KB9BVN/QRP QRP-L 1540 QRP-ARCI 10223
39.558 N 86.095 W Johnson Co., Indiana
GRID: EM69WN - Elecraft K1 - Attic Dipole - 5w
Member of the ARRL - SOC #400
FISTS 5695 CC 764 FPQRP #-57
==

2191. Re: Houston surplus parts store ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-02 00:41:23 UTC
From: Henry Kolesnik <kolesnik@sbcglobal.net>
Message-ID: <T_tZc.7966$L21.3106@newssvr23.news.prodigy.com>
Source record: 23574
Cross-posted to:
rec.radio.amateur.homebrew,sci.electronics.components,rec.antiques.radio+phono,rec.radio.amateur.boatanchors

I only had time to go to EPO on Fondren. Spent about 30 minutes and didn't find anything I couldn't live without. I was there a year ago and the main thing I noticed is that prices have gone up. If this is the case elsewhere, homebrewers are going to have to dig deep or look elsewhere.

--
73
Hank WD5JFR

"DJboutit" <Recordking@Hotmail.com> wrote in message
news:VK8Zc.12041$zE3.3419@newssvr24.news.prodigy.com...
> Charlie's Airwaves is over pirced on almost every thing. Nice place to go
> and look & repair prices are not that bad. I remeber when the EPO Houston
> use to sell alot more surplus stuff that was like 3 years ago. Now the
only
> surpul stuff they have is some computer stuff batteries power supplys and
> generators. I like the epo back in the day not it is just good to go &
look
> you might find something you need. I am also looking for a good surplus
> electronic store within about 50 or so miles of Houston anybody know of
any
> good ones.
>
>

2192. Re: European Difficulty - Re: Houston surplus parts store ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-02 00:53:22 UTC
From: Bob Weiss <bob.weiss@verizon.net>
Message-ID: <6auZc.2391$3Q5.2332@trndny06>
Source record: 23575
Cross-posted to:
rec.radio.amateur.homebrew,sci.electronics.components,rec.antiques.radio+phono,rec.radio.amateur.boatanchors

Scott W. Harvey wrote:

> expensive.
>
> IMHO, These items should be put on a giant barge and sent back to the
> country of origin with the caveat that a trade embargo will be imposed
> against any country that refuses to take them back. Maybe when China,
> Mexico, and other cheap-labor countries experience first hand what a
> colossal pain it is to deal with the ass end of their product's
> mercilessly short life cycles, maybe they won't dump quite so much of
> this junk on our shores.
>
> -Scott

These countries are ALREADY taking the stuff back, and it is killing
people and destroying the environment in their countries, as well:

http://greennature.com/article978.html
http://english.epochtimes.com/news/3-9-11/5040.html
http://www.peopleandplanet.net/doc.php?id=1445

Bob Weiss N2IXK

2193. Surplus stores in NJ

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-02 02:25:15 UTC
From: "G.Beat" <now9spamgb@no.comcast.spam.net>
Message-ID: <fwvZc.11049$3l3.843@attbi_s03>
Source record: 23576

Are there any surplus stores left in Monmouth County area? Red Bank, etc.
??

Seems like most of the mfg. is gone from that area of NJ

w9gb

2194. Texas Instruments renames SN74107/CD4027

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-02 10:50:23 UTC
From: John Walton <jdwalton@comcast.net>
Message-ID: <noWdnWTcJtN9ZKvcRVn-vQ@comcast.com>
Source record: 23577

Is the joke too subtle?

2195. Re: 100 MHz Crystal

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-02 10:50:46 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <dcjcj05v6e32kvl39cfkqjd4ujn4ddo3n2@4ax.com>
Source record: 23578

On 1 Sep 2004 14:14:12 -0700, mrmonett@yahoo.com (Mike Monett) wrote:

> Frequency multiplication tends to increase jitter as well as
> frequency, however. To minimize jitter at the gigahertz level,
> equipment builders have to start with super-low-jitter reference
> oscillators. But the higher the reference frequency climbs, the
> lower the final gigahertz signal's jitter.

Very interesting, Mike. By "jitter" do you mean phase noise?
--

"What is now proved was once only imagin'd." - William Blake, 1793.

2196. Re: 100 MHz Crystal

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-02 13:25:16 UTC
From: Fred Bartoli <fred._canxxxel_this_bartoli@RemoveThatAlso_free.fr_AndThisToo>
Message-ID: <41371ef8$0$8361$636a15ce@news.free.fr>
Source record: 23579

"Paul Burridge" <pb@notthisbit.osiris1.co.uk> a crit dans le message de
news:dcjcj05v6e32kvl39cfkqjd4ujn4ddo3n2@4ax.com...
> On 1 Sep 2004 14:14:12 -0700, mrmonett@yahoo.com (Mike Monett) wrote:
>
> > Frequency multiplication tends to increase jitter as well as
> > frequency, however. To minimize jitter at the gigahertz level,
> > equipment builders have to start with super-low-jitter reference
> > oscillators. But the higher the reference frequency climbs, the
> > lower the final gigahertz signal's jitter.
>
> Very interesting, Mike. By "jitter" do you mean phase noise?

No. Jitter is jitter is jitter, but is related to phase noise that is phase
noise that is phase noise.

--
Thanks,
Fred.

2197. Re: High Current Horror Stories

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-02 14:39:49 UTC
From: allen <allen_card@nospam.com>
Message-ID: <413730B4.1966E19B@nospam.com>
Source record: 23580
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur

Our newer systems back in 1985 used dual MG setup 400 Hz and 50-60 VAC

anyway, one of the tape drive units had failed, IBM arrived and was checking
power connections in the power supply (they call it a power tub).
Other IBM guy (new young pup) kept leaning on the control unit while
the old timer IBM guy was trying to probe the voltages at the breakers.
Almost gave him a large shock before we told him to get off our control unit.

Same young pup wants to get under the floor to unplug the large
power connector russelstoll 30 amp 3 phase, old timer grabs him by
his belt from behind, and saved his life !

IBM guy takes the rubber cord and then gently glances the RS
connector to the floor supports (all metal and gounnded with copper cables)
large sparks when he did this !

Young ibm pup almost pee in his pants.

Turns out somebody on work crew did not wire the ground cables properly
so the floor was HOT HOT HOT ! Good thing it was carpeted flooring in the
computer center.

allen

Rex wrote:

> And you reminded me of something too. Not really a problem, but could
> have been.
>
> When I was working on mainframe computers in the 70's we installed a new
> machine in Europe. The power for the computer was supplied by a big
> motor generator with an output of 3-phase 208 V 400 Hz (or was it CPS
> back then?) power to the computer. I learned from the customer that they
> discovered that a wiring error had routed the motor generator power to
> the wall sockets in the computer room.
>
> I told the customer that it was very good they had found this problem
> before people used the sockets. If the cleaning lady had come in and
> plugged a vacuum cleaner into the 400 Hz power, it would have probably
> sucked all the air out of the room. :-)
>
> -Rex, KK6MK

2198. Re: Surplus stores in NJ

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-02 14:40:51 UTC
From: allen <allen_card@nospam.com>
Message-ID: <413730F2.F6AC7268@nospam.com>
Source record: 23581

what are you looking for ?

http://www.allcorp.com
http://www.surplussales.com

allen

"G.Beat" wrote:

> Are there any surplus stores left in Monmouth County area? Red Bank, etc.
> ??
>
> Seems like most of the mfg. is gone from that area of NJ
>
> w9gb

2199. Re: European Difficulty - Re: Houston surplus parts store ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-02 16:23:20 UTC
From: Roger Gt <not@here.net>
Message-ID: <YNHZc.14587$Js5.9471@newssvr27.news.prodigy.com>
Source record: 23595
Cross-posted to:
rec.radio.amateur.homebrew,sci.electronics.components,rec.antiques.radio+phono,rec.radio.amateur.boatanchors

"Bob Weiss" <bob.weiss@verizon.net> wrote in message
news:6auZc.2391$3Q5.2332@trndny06...
: Scott W. Harvey wrote:
:
: > expensive.
: >
: > IMHO, These items should be put on a giant barge and sent back
to the
: > country of origin with the caveat that a trade embargo will be
imposed
: > against any country that refuses to take them back. Maybe when
China,
: > Mexico, and other cheap-labor countries experience first hand
what a
: > colossal pain it is to deal with the ass end of their
product's
: > mercilessly short life cycles, maybe they won't dump quite so
much of
: > this junk on our shores.
: >
: > -Scott
:
: These countries are ALREADY taking the stuff back, and it is
killing
: people and destroying the environment in their countries, as
well:
:
: http://greennature.com/article978.html
: http://english.epochtimes.com/news/3-9-11/5040.html
: http://www.peopleandplanet.net/doc.php?id=1445
:
: Bob Weiss N2IXK

Name one person who has died that can be traced directly to
salvaging efforts.

2200. Re: 100 MHz Crystal

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-02 17:10:33 UTC
From: mrmonett@yahoo.com
Message-ID: <7e4a2a11.0409020910.111f2271@posting.google.com>
Source record: 23582

Paul Burridge <pb@notthisbit.osiris1.co.uk> wrote in message
news:<dcjcj05v6e32kvl39cfkqjd4ujn4ddo3n2@4ax.com>...
> On 1 Sep 2004 14:14:12 -0700, mrmonett@yahoo.com (Mike Monett) wrote:
>
> > Frequency multiplication tends to increase jitter as well as
> > frequency, however. To minimize jitter at the gigahertz level,
> > equipment builders have to start with super-low-jitter reference
> > oscillators. But the higher the reference frequency climbs, the
> > lower the final gigahertz signal's jitter.
>
> Very interesting, Mike. By "jitter" do you mean phase noise?

Hi Paul,

Actually, I didn't write that. Those were excerpts from various
sites that discussed the pros and cons of inverted mesa crystals.

The main advantage of inverted mesa crystals is lower jitter (or
phase noise,) especially when you have to multiply to higher
frequencies such as the Ghz region. Inverted mesa crystals allow you
to start at a higher frequency, which reduces the multiplication
factor needed.

To answer your question, yes, phase noise and jitter are closely
related. Jitter is measured in the time domain and has units of
time, where phase noise is measured in the frequency domain and has
units of dBc. You can convert from phase noise to jitter by
integrating the phase noise curve.

There are many articles that discuss phase noise and jitter. Perhaps
the best are by Hajimiri and Lee:

Ali Hajimiri and Thomas H. Lee, "A General Theory of Phase Noise
in Electrical Oscillators", IEEE JOURNAL OF SOLID-STATE CIRCUITS,
VOL. 33, NO. 2, FEBRUARY 1998

www.chic.caltech.edu/Publications/general_full.PDF (441k pdf)

Thomas H. Lee, Ali Hajimiri, "Oscillator Phase Noise: A Tutorial",
IEEE JOURNAL OF SOLID-STATE CIRCUITS, VOL. 35, NO. 3, MARCH 2000,

http://www.chic.caltech.edu/Publications/phase_tutor.pdf (212k pdf)

Dean Banerjee also discusses this in his book "PLL Performance,
Simulation and Design"

https://www.national.com/appinfo/wireless/files/DeansBook_4_01.pdf

There is a worked example in "Measuring / Specifying Jitter in crystal oscillators":

http://tinyurl.com/4jzfc

Wenzel has an Excel spreadsheet to calculate Allan Variance from Phase Noise:

"This spreadsheet calculates the Allan Variance from supplied phase noise intercepts. Total RMS jitter over the specified bandwidth is also calculated."

http://www.wenzel.com/documents/spread.htm

Boris Drakhlis had two articles titled "Calculate Oscillator Jitter By Using Phase-Noise Analysis," Microwaves & RF, Jan. 2001 pp. 82-90 and p. 157, but they seem to have disappeared from the web. I could email them to you if you are interested, but they basically duplicate the above info.

Ken Kundert also has some info on noise and jitter on his home page:

http://home.pacbell.net/kundert/

Most exciting to me is Rohde has found a way to significantly reduce the phase noise in wideband vco's, which was previously dominated by varactor noise. I keep searching for more information, but there seems to be nothing in the USPTO or on the web. He sells modules but I don't have the url handy.

Maybe some info will appear as time goes on and more people use them.

Best Regards,

Mike

2201. Re: Texas Instruments renames SN74107/CD4027

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-02 17:56:38 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <ch7n1bjof1@newshost.mot.com>
Source record: 23583

yep.

"John Walton" <jdwalton@comcast.net> wrote in message
news:noWdnWTcJtN9ZKvcRVn-vQ@comcast.com...
> Is the joke too subtle?
>
>

2202. Re: 100 MHz Crystal

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-02 18:04:45 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <ch7ngjjsp1@newshost.mot.com>
Source record: 23584

Generally speaking. it is the part of the blank which is directly under the electrodes, and very near to the edges of the electrodes, that determine the frequency. I was close to some 135 MHz crystal filter some years ago, but wasn not aware of the technology useed -- it wasn't used in the final design.
--
Steve N, K,9;d, c. i My email has no u's.

2203. Re: 100 MHz Crystal

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-02 19:46:29 UTC
From: Mike Monett <no@spam.com>
Message-ID: <41377895.60B@spam.com>
Source record: 23585

Paul Burridge wrote:

> [excellent references snipped]
>
> Thanks, Mike. That lot ought to keep me quiet for a while!
>
> p.

Now, watch you don't get too smart! I enjoy the discussions you raise and usually end up learning something - which is more than I can say for some of the self-appointed experts in other newsgroups;)

Best Wishes,

Mike Monett

2204. Re: Houston surplus parts store ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-02 20:02:18 UTC
From: Doug <dslosty@pipeline.com>
Message-ID: <r0vej0l1npji5v1rtofrlhjkkabk7v6ms1@4ax.com>
Source record: 23586
Cross-posted to:
rec.radio.amateur.homebrew,sci.electronics.components,rec.antiques.radio+phono,rec.radio.amateur.boatanchors

On Wed, 01 Sep 2004 00:29:51 GMT, "DJboutit" <Recordking@Hotmail.com>
wrote:

>Charlie's Airwaves is over pirced on almost every thing. Nice place to go
>and look & repair prices are not that bad. I remeber when the EPO Houston
>use to sell alot more surplus stuff that was like 3 years ago. Now the only
>surpul stuff they have is some computer stuff batteries power supplys and
>generators. I like the epo back in the day not it is just good to go & look
>you might find something you need. I am also looking for a good surplus
>electronic store within about 50 or so miles of Houston anybody know of any
>good ones.

I assume that Madison Electronics in Houston is long gone?
They used to be a great ham dealer with lots of surplus.

Doug

2205. Re: European Difficulty - Re: Houston surplus parts store ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-02 20:40:04 UTC
From: Highland Ham <abcgm0csz.kn6whxyz@abcntlworldxyz.com>
Message-ID: <EyLZc.135$sB.109@newsfe5-win.ntli.net>
Source record: 23588
Cross-posted to:
sci.electronics.components,rec.antiques.radio+phono,rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew

> The solution to the trash and recycling problem is a bit more
> attention to repair and disposal on the design and manufacturing
> side, and a recycling deposit.
==========
In the Netherlands and probably other EU countries all electrical goods are subjected to a 'disposal fee' related to the purchase price and size/hardware content ,which is to be paid upon purchase.

For a hair dryer the fee is low , for a TV set or laundry machine the fee is much higher. Old /defective goods can be returned to the shop the goods were purchased ,or to the relevant municipal waste depot.

Good system where money is paid up front to pay for eventual disposal/ recycling.

One of the early 'top' recycling countries in Europe is Switzerland.

Frank GM0CSZ / KN6WH

2206. Re: European Difficulty - Re: Houston surplus parts store ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-02 20:40:05 UTC
From: Highland Ham <abcgm0csz.kn6whxyz@abcntlworldxyz.com>
Message-ID: <FyLZc.136$sB.74@newsfe5-win.ntli.net>
Source record: 23587
Cross-posted to:
rec.radio.amateur.homebrew,sci.electronics.components,rec.antiques.radio+phono,rec.radio.amateur.boatanchors

> These countries are ALREADY taking the stuff back, and it is killing
> people and destroying the environment in their countries, as well:
==========
Yes indeed . A few years ago I saw a TV programme on lead acid batteries
recycling.
Used batteries were shipped from the USA (back)to Taiwan,with the lead
being recovered there . A dreadful operation. Working conditions and
resulting pollution of the local environment were really bad.

Frank GM0CSZ / KN6WH

2207. Re: European Difficulty - Re: Houston surplus parts store ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-02 22:09:55 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <v66fj09j61kbhbrsf9649j7del85bskj01@4ax.com>
Source record: 23589
Cross-posted to:
sci.electronics.components,rec.antiques.radio+phono,rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew

On Thu, 02 Sep 2004 20:40:04 GMT, "Highland Ham"
<abcgm0csz.kn6whxyz@abcntlworldxyz.com> wrote:

>> The solution to the trash and recycling problem is a bit more
>> attention to repair and disposal on the design and manufacturing
>> side, and a recycling deposit.
>============
>In the Netherlands and probably other EU countries all electrical goods are
>subjected to a 'disposal fee' related to the purchase price and
>size/hardware content ,which is to be paid upon purchase.
>
>For a hair dryer the fee is low , for a TV set or laundry machine the fee is
>much higher. Old /defective goods can be returned to the shop the goods were
>purchased ,or to the relevant municipal waste depot.
>
>Good system where money is paid up front to pay for eventual disposal/
>recycling.
>

And the electronics shops are supposed to return a certain amount of
rubbish for the consumer electronics they sell. If they can't provide
this they must pay a fee. Some shops collected the old PC's to give to
schools in Poland, but had to give up this practice because it reduced
their rubbish to be collected

On the other hand they might be pleased to solve your problem to get
rid of your rubbish

73
Jan-Martin
LA8AK

J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

2208. Re: 100 MHz Crystal

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-03 01:52:57 UTC
From: Jim Adney <jadney@vwtype3.org>
Message-ID: <dd6dj05v13jbpjoi77cnctj1m4lqcp3ea3@4ax.com>
Source record: 23590

On 1 Sep 2004 09:59:49 -0700 k7itm@aol.com (Tom Bruhns) wrote:

>Suggestion: just get a 100MHz TTL oscillator. I believe Harold
>offered you one last time you posted about 100MHz xtals a couple years
>ago. ECL won't have 2.5V output, but I could supply you with a nice
>little PECL 100MHz VCXO that you could easily trim to "exactly"
>100MHz. It will deliver about 800mV p-p into 50 ohms.

What is PECL?

What kind of stability and aging could I expect from this oscillator?

-

Jim Adney jadney@vwtype3.org
Madison, WI 53711 USA

2209. Modify a tuner to receive outer frequencies

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-03 03:10:06 UTC
From: Tony <---NO_._SPAM---bincit>
Message-ID: <ch8n8f$3ei$1@le1.cs.unibo.it>
Source record: 23591

do exist a simple method for modify a home radio tuner to get FM and AM frequencies out of the range?
Can I receive station up and below the limits?

2210. Battery voltage indicator

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-03 04:34:28 UTC
From: Joel <Joel@cyberbest.com>
Message-ID: <uvSZc.139$KQ5.121@fe25.usenetserver.com>
Source record: 23592

I'm interested in building something to allow me to monitor the backup battery voltage on our local repeater. I was thinking of using some CAT-1000 user input leads to be activated depending on the battery voltage. I could probably use some comparators and logic to allow only one lead to be active, depending on the battery voltage and then use that to activate a macro to 'say' the actual voltage. Anyway, I was wondering if anyone had any thoughts on the idea and if maybe someone already created such an animal.

Joe AG4QC

2211. Re: Modify a tuner to receive outer frequencies

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-03 05:11:57 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <x2TZc.87548$X12.3296@edtnps84>
Source record: 23593

Behold, Tony signalled from keyed 4-1000A filament:

> do exist a simple method for modify a home radio tuner to get FM and AM
> frequencies out of the range?

Yes, but it's not simple. Your tracking will be messed up and alignment
with an oscilloscope needed.

--
Gregg t3h g33k
"Ratings are for transistors....tubes have guidelines"
http://geek.scorpiorising.ca

2212. Re: Modify a tuner to receive outer frequencies

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-03 05:58:31 UTC
From: Tony <---NO_._SPAM---bincit>
Message-ID: <ch9149$960$1@le1.cs.unibo.it>
Source record: 23594

And does exist a little doc to do that?

--
--
I use PGP. Ask for my key if interested.
-

"Gregg" <nospam@unknown.org> ha scritto nel messaggio
news:x2TZc.87548$X12.3296@edtnps84...
> Behold, Tony signalled from keyed 4-1000A filament:
>
> > do exist a simple method for modify a home radio tuner to get FM and AM
> > frequencies out of the range?
>
> Yes, but it's not simple. Your tracking will be messed up and alignment
> with an oscilloscope needed.
>
> --
> Gregg t3h g33k
> "Ratings are for transistors....tubes have guidelines"
> http://geek.scorpiorising.ca

2213. Re: Battery voltage indicator

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-03 07:42:35 UTC
From: Leon Heller <leon_heller@hotmail.com>
Message-ID: <4138206a$0$20247$cc9e4d1f@news-text.dial.pipex.com>
Source record: 23596

"Joel" <Joel@cyberbest.com> wrote in message
news:uvSZc.139$KQ5.121@fe25.usenetserver.com...
> I'm interested in building something to allow me to monitor the backup
> battery voltage on our local repeater. I was thinking of using some
CAT-1000
> user input leads to be activated depending on the battery voltage. I could
> probably use some comparators and logic to allow only one lead to be
active,
> depending on the battery voltage and then use that to activate a macro to
> 'say' the actual voltage. Anyway, I was wondering if anyone had any
> thoughts on the idea and if maybe someone already created such an animal.

A microcontroller with an ADC would be the best way. I'd use the PIC 12F675
and output the voltage in Morse.

73, Leon

2214. Re: 100 MHz Crystal

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-03 07:44:37 UTC
From: Leon Heller <leon_heller@hotmail.com>
Message-ID: <413820e4$0$20252$cc9e4d1f@news-text.dial.pipex.com>
Source record: 23498

"Jim Adney" <jadney@vwtype3.org> wrote in message
news:dd6dj05v13jbpjoi77cnctj1m4lqcp3ea3@4ax.com...
> On 1 Sep 2004 09:59:49 -0700 k7itm@aol.com (Tom Bruhns) wrote:
>
> >Suggestion: just get a 100MHz TTL oscillator. I believe Harold
> >offered you one last time you posted about 100MHz xtals a couple years
> >ago. ECL won't have 2.5V output, but I could supply you with a nice
> >little PECL 100MHz VCXO that you could easily trim to "exactly"
> >100MHz. It will deliver about 800mV p-p into 50 ohms.
>
> What is PECL?

Plessey emitter-coupled logic, like MECL, which is made by Motorola.

Leon

2215. Re: European Difficulty - Re: Houston surplus parts store ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-03 08:19:13 UTC
From: kashe@sonic.net
Message-ID: <kr9gj09kit20nsake8bam8tpq89i581koi@4ax.com>
Source record: 23499
Cross-posted to:
rec.radio.amateur.homebrew,sci.electronics.components,rec.antiques.radio+phono,rec.radio.amateur.boatanchors

```
On Thu, 02 Sep 2004 16:23:20 GMT, "Roger Gt" <not@here.net> wrote:

>
>"Bob Weiss" <bob.weiss@verizon.net> wrote in message
>news:6auZc.2391$3Q5.2332@trndny06...
>: Scott W. Harvey wrote:
>:
>: > expensive.
>: >
>: > IMHO, These items should be put on a giant barge and sent back
>to the
>: > country of origin with the caveat that a trade embargo will be
>imposed
>: > against any country that refuses to take them back. Maybe when
>China,
>: > Mexico, and other cheap-labor countries experience first hand
>what a
>: > colossal pain it is to deal with the ass end of their
>product's
>: > mercilessly short life cycles, maybe they won't dump quite so
>much of
>: > this junk on our shores.
>: >
>: > -Scott
>:
>: These countries are ALREADY taking the stuff back, and it is
>killing
>: people and destroying the environment in their countries, as
>well:
>:
>: http://greennature.com/article978.html
>: http://english.epochtimes.com/news/3-9-11/5040.html
>: http://www.peopleandplanet.net/doc.php?id=1445
>:
>: Bob Weiss N2IXK
>
>
>Name one person who has died that can be traced directly to
>salvaging efforts.
>

Real sensible question.
```

Just like the one about two white guys and a black guy
arriving at Heaven. St. Peter asks the first guy what famous ship was
sunk by an iceberg. Guy answers, "Titanic" and St. Peter waves him in.
St. Peter asks the second white guy how many died. Guy says, "1503"
and St Peter waves him in. Then he turns to the black guy and says,
"Name them."

2216. Re: European Difficulty - Re: Houston surplus parts store ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-03 08:36:37 UTC
From: "Watson A.Name - \"Watt Sun, the Dark Remover\"" <NOSPAM@dslextreme.com>
Message-ID: <10jgb82ii6i80de@corp.supernews.com>
Source record: 23500
Cross-posted to:
rec.radio.amateur.homebrew,sci.electronics.components,rec.antiques.radio+phono,rec.radio.amateur.boatanchors

<kashe@sonic.net> wrote in message
news:kr9gj09kit20nsake8bam8tpq89i581koi@4ax.com...
> On Thu, 02 Sep 2004 16:23:20 GMT, "Roger Gt" <not@here.net> wrote:
>
> >
> >"Bob Weiss" <bob.weiss@verizon.net> wrote in message
> >news:6auZc.2391$3Q5.2332@trndny06...
> >: Scott W. Harvey wrote:
> >:
> >: > expensive.
> >: >
> >: > IMHO, These items should be put on a giant barge and sent back
> >to the
> >: > country of origin with the caveat that a trade embargo will be
> >imposed
> >: > against any country that refuses to take them back. Maybe when
> >China,
> >: > Mexico, and other cheap-labor countries experience first hand
> >what a
> >: > colossal pain it is to deal with the ass end of their
> >product's
> >: > mercilessly short life cycles, maybe they won't dump quite so
> >much of
> >: > this junk on our shores.
> >: >
> >: > -Scott
> >:
> >: These countries are ALREADY taking the stuff back, and it is
> >killing
> >: people and destroying the environment in their countries, as
> >well:
> >:
> >: http://greennature.com/article978.html
> >: http://english.epochtimes.com/news/3-9-11/5040.html
> >: http://www.peopleandplanet.net/doc.php?id=1445
> >:
> >: Bob Weiss N2IXK

Many people don't realize that most of the high tech parts of
electronics equipment, such as the, ahem, CRTs, are _made_ right here in
the U.S. and shipped to another country for assembly. Sony's San Diego
plant is one notable example.

> >Name one person who has died that can be traced directly to
> >salvaging efforts.
> >
>
> Real sensible question.
>
> Just like the one about two white guys and a black guy
> arriving at Heaven. St. Peter asks the first guy what famous ship was
> sunk by an iceberg. Guy answers, "Titanic" and St. Peter waves him in.
> St. Peter asks the second white guy how many died. Guy says, "1503"
> and St Peter waves him in. Then he turns to the black guy and says,
> "Name them."

2217. Re: Modify a tuner to receive outer frequencies

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-03 10:17:33 UTC
From: Peter Parker <parkerp@NOSPAMalphalink.com.au>
Message-ID: <4138431e@news.alphalink.com.au>
Source record: 23501

"Gregg" <nospam@unknown.org> wrote in message
news:x2TZc.87548$X12.3296@edtnps84...
> Behold, Tony signalled from keyed 4-1000A filament:
>
> > do exist a simple method for modify a home radio tuner to get FM and AM
> > frequencies out of the range?
>
> Yes, but it's not simple.

Disagree.

>Your tracking will be messed up

Agree. Sensitivity will suffer at one end of the dial.

>and alignment with an oscilloscope needed.

Disagree. Just your ears will do.

Assuming we're talking the old style dial tuners, and not digitally tuned receivers, it's possible to get them to recieve up to 1.8 or 1.9 MHz. You can sometimes hear AM b/cast stations above 1.6 MHz and amateur radio 160m activity (some of which is AM) above 1.8 MHz.

Details at http//www.alphalink.com.au/~parkerp/160.htm

At one time I fiddled with an FM clock radio and could hear ambulance or police around 80 MHz. The bandwidth was dreadful, signals blotted each other out and you had to crank up the vol control due to the low deviations used (relative to b/cast WB FM).

73, Peter VK3YE

2218. Re: Modify a tuner to receive outer frequencies

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-03 11:03:59 UTC
From: Tony <---NO_._SPAM---bincit>
Message-ID: <ch9j13klb1@le1.cs.unibo.it>
Source record: 23502

>
> Details at http//www.alphalink.com.au/~parkerp/160.htm
>
broken

2219. Re: Modify a tuner to receive outer frequencies

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-03 12:10:56 UTC
From: Martin <vk2umjATyahooDOTcomDOTau>
Message-ID: <41385f95$1_1@news.iprimus.com.au>
Source record: 23503

"Peter Parker" <parkerp@NOSPAMalphalink.com.au> wrote in message
news:4138431e@news.alphalink.com.au...
>
> "Gregg" <nospam@unknown.org> wrote in message
> news:x2TZc.87548$X12.3296@edtnps84...
> > Behold, Tony signalled from keyed 4-1000A filament:
> >
> > > do exist a simple method for modify a home radio tuner to get FM and
AM
> > > frequencies out of the range?
> >
> > Yes, but it's not simple.
>
> Disagree.
>
> >Your tracking will be messed up
>
> Agree. Sensitivity will suffer at one end of the dial.
>
> >and alignment with an oscilloscope needed.
>
> Disagree. Just your ears will do.
>
> Assuming we're talking the old style dial tuners, and not digitally tuned
> receivers, it's possible to get them to recieve up to 1.8 or 1.9 MHz. You
> can sometimes hear AM b/cast stations above 1.6 MHz and amateur radio 160m
> activity (some of which is AM) above 1.8 MHz.
>
> Details at http//www.alphalink.com.au/~parkerp/160.htm
>
> At one time I fiddled with an FM clock radio and could hear ambulance or
> police around 80 MHz. The bandwidth was dreadful, signals blotted each
other
> out and you had to crank up the vol control due to the low deviations used
> (relative to b/cast WB FM).
>

Ahh - the good old days!!! I remember putting 10pF ceramic caps across the
FM side of the tuning cap in an old AM/FM clock radio, then listening to the
local police on 83-84 MHz. Worked well if you turned up the volume and, as
you say, had some separation between the freq's you wanted to listen to.

Cheers

Martin, VK2UMJ

2220. Re: Surplus stores in NJ

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-03 13:06:27 UTC
From: "G.Beat" <now9spamgb@no.comcast.spam.net>
Message-ID: <n%ZZc.282812$eM2.274835@attbi_s51>
Source record: 23504

"allen" <allen_card@nospam.com> wrote in message
news:413730F2.F6AC7268@nospam.com...
> what are you looking for ?
>
> http://www.allcorp.com
> http://www.surplussales.com
>
> allen
>
> "G.Beat" wrote:
>
>> Are there any surplus stores left in Monmouth County area? Red Bank,
>> etc.
>> ??
>>
>> Seems like most of the mfg. is gone from that area of NJ
>>
>> w9gb
>

Allen -

I am very aware of the surplus stores that are mail order and that have store fronts in various parts of the US (e.g. MECI - Dayton; Fair Radio - Lima; tons in California).

I visit the Northern NJ area on a regular basis and wondered if any surplus operation (walk-in) existed since the area I pointed out is next to Fort Monmouth - which has grown over past 10 years -- and was largely radio and communications oriented when I toured it in mid-1990s. This area is also former mfg. location for EAC (division of Hammerlund) that built the R-290A receiver during the Vietnam war era and several RCA and Bell Labs/Lucent facilities were scattered from this area to the Easton/Allentown, PA area.

My first though is that any surplus operation has closed - in favor of tourist ventures associated with "Jersey Shore" -- but I asked.

GB

2221. Re: 100 MHz Crystal

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-03 14:05:58 UTC
From: jzaninovich@cs.com
Message-ID: <20040903100558.03318.00000110@mb-m17.news.cs.com>
Source record: 23505

```
>From: "Leon Heller" leon_heller@hotmail.com
>Newsgroups: rec.radio.amateur.homebrew
>References: <20040831230305.04845.00002758@mb-m24.aol.com>
><3200347.0409010859.3ff470f7@posting.google.com>
><dd6dj05v13jbpjoi77cnctj1m4lqcp3ea3@4ax.com>
>Date: Fri, 3 Sep 2004 08:44:37 +0100
>X-Priority: 3
>X-MSMail-Priority: Normal
>X-Newsreader: Microsoft Outlook Express 6.00.2800.1437
>X-MimeOLE: Produced By Microsoft MimeOLE V6.00.2800.1441
>Lines: 17
>Message-ID: <413820e4$0$20252$cc9e4d1f@news-text.dial.pipex.com>
>NNTP-Posting-Date: 03 Sep 2004 07:44:36 GMT
>NNTP-Posting-Host: 81-178-232-132.dsl.pipex.com
>X-Trace: 1094197476 news-text.dial.pipex.com 20252 81.178.232.132:3125
>X-Complaints-To: abuse@uk.uu.net
>
>
>
>"Jim Adney" <jadney@vwtype3.org> wrote in message
>news:dd6dj05v13jbpjoi77cnctj1m4lqcp3ea3@4ax.com...
>> On 1 Sep 2004 09:59:49 -0700 k7itm@aol.com (Tom Bruhns) wrote:
>>
>> >Suggestion: just get a 100MHz TTL oscillator. I believe Harold
>> >offered you one last time you posted about 100MHz xtals a couple years
>> >ago. ECL won't have 2.5V output, but I could supply you with a nice
>> >little PECL 100MHz VCXO that you could easily trim to "exactly"
>> >100MHz. It will deliver about 800mV p-p into 50 ohms.
>>
>> What is PECL?
>
>Plessey emitter-coupled logic, like MECL, which is made by Motorola.
>
>Leon
>
>
>

PECL is ECL run from a positive supply. ECL is normally run from a negative
supply respect to ground. So, they have the sme swings, but different "bias"
levels.

Jure Z.
```

2222. Re: 100 MHz Crystal

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-03 15:27:38 UTC
From: k7itm@aol.com
Message-ID: <3200347.0409030727.407bb572@posting.google.com>
Source record: 23506

PECL = positive-supply ECL. It's set up to run from a +5V supply
(with the metal case grounded), instead of the usual -5.2V for ECL.
Has nothing to do with Plessey.

I believe it's spec'd +/-20ppm total from -40C to +85C. It uses a
standard AT-cut crystal, I believe, so one could find a zero-slope
operating temperature and it'd be quite stable.

Cheers,
Tom

Jim Adney <jadney@vwtype3.org> wrote in message
news:<dd6dj05v13jbpjoi77cnctj1m4lqcp3ea3@4ax.com>...
> On 1 Sep 2004 09:59:49 -0700 k7itm@aol.com (Tom Bruhns) wrote:
>
> >Suggestion: just get a 100MHz TTL oscillator. I believe Harold
> >offered you one last time you posted about 100MHz xtals a couple years
> >ago. ECL won't have 2.5V output, but I could supply you with a nice
> >little PECL 100MHz VCXO that you could easily trim to "exactly"
> >100MHz. It will deliver about 800mV p-p into 50 ohms.
>
> What is PECL?
>
> What kind of stability and aging could I expect from this oscillator?
>
> -
> ---
> Jim Adney jadney@vwtype3.org
> Madison, WI 53711 USA
> ---

2223. Re: 100 MHz Crystal

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-03 17:35:31 UTC
From: Leon Heller <leon_heller@hotmail.com>
Message-ID: <4138ab62$0$20254$cc9e4d1f@news-text.dial.pipex.com>
Source record: 23507

"Tom Bruhns" <k7itm@aol.com> wrote in message
news:3200347.0409030727.407bb572@posting.google.com...
> PECL = positive-supply ECL. It's set up to run from a +5V supply
> (with the metal case grounded), instead of the usual -5.2V for ECL.
> Has nothing to do with Plessey.

Yes, you are correct. Plessey used to make it. Please excuse my confusion.

Leon

2224. Good Cheap Soldering Iron

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-03 19:13:00 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10jhghqd88iv41f@corp.supernews.com>
Source record: 23508
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

A friend of mine is putting together a middle-school electronics lab, and wants to get some good cheap soldering irons. I've been traumatized by some really pitiful soldering irons so I don't just want to go price shopping. However, since I've been using professional grade, temperature controlled irons almost exclusively for years I can't recommend any good cheap ones.

Can anyone recommend a soldering iron that will actually work but doesn't cost much? I'm thinking of a rough equivalent to the Weller WP-25, but that costs less than $20 a pop.

Thanks in advance.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

2225. Question: HV Variable Caps from Printed Circuit Board

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-03 19:36:02 UTC
From: nospam_deepsea_77@yahoo.com
Message-ID: <4138b6bf.1236852@news1.news.adelphia.net>
Source record: 23509

Could someone explain how to make a high voltage (10KV at least)
variable tuning cap out of printed circuit board material, or point
me to a site that explains it?

Tnx!

73 DE Lin/KJ6EF
For email responses, remove "nospam_".

2226. Re: Modify a tuner to receive outer frequencies

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-03 19:52:23 UTC
From: Amy dmith <dithy@swbellnetcomorg.com>
Message-ID: <2ps0bkFp42h8U1@uni-berlin.de>
Source record: 23510

You can BUY tuners that cover other bands really cheap. Just like TV tuners
but cover other bands too. Sharp makes them and others. about $30 a pop.

"Martin" <vk2umjATyahooDOTcomDOTau> wrote in message
news:41385f95$1_1@news.iprimus.com.au...
> "Peter Parker" <parkerp@NOSPAMalphalink.com.au> wrote in message
> news:4138431e@news.alphalink.com.au...
> >
> > "Gregg" <nospam@unknown.org> wrote in message
> > news:x2TZc.87548$X12.3296@edtnps84...
> > > Behold, Tony signalled from keyed 4-1000A filament:
> > >
> > > > do exist a simple method for modify a home radio tuner to get FM and
> AM
> > > > frequencies out of the range?
> > >
> > > Yes, but it's not simple.
> >
> > Disagree.
> >
> > >Your tracking will be messed up
> >
> > Agree. Sensitivity will suffer at one end of the dial.
> >
> > >and alignment with an oscilloscope needed.
> >
> > Disagree. Just your ears will do.
> >
> > Assuming we're talking the old style dial tuners, and not digitally
tuned
> > receivers, it's possible to get them to recieve up to 1.8 or 1.9 MHz.
You
> > can sometimes hear AM b/cast stations above 1.6 MHz and amateur radio
160m
> > activity (some of which is AM) above 1.8 MHz.
> >
> > Details at http//www.alphalink.com.au/~parkerp/160.htm
> >
> > At one time I fiddled with an FM clock radio and could hear ambulance or
> > police around 80 MHz. The bandwidth was dreadful, signals blotted each
> other
> > out and you had to crank up the vol control due to the low deviations
used
> > (relative to b/cast WB FM).

> >
>
> Ahh - the good old days!!! I remember putting 10pF ceramic caps across
the
> FM side of the tuning cap in an old AM/FM clock radio, then listening to
the
> local police on 83-84 MHz. Worked well if you turned up the volume and,
as
> you say, had some separation between the freq's you wanted to listen to.
>
>
> Cheers
>
> Martin, VK2UMJ
>
>
>
>

2227. Re: Good Cheap Soldering Iron

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-03 20:01:49 UTC
From: "G.Beat" <now9spamgb@no.comcast.spam.net>
Message-ID: <M44_c.111939$Fg5.84153@attbi_s53>
Source record: 23511
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

"Tim Wescott" <tim@wescottnospamdesign.com> wrote in message
news:10jhghqd88iv41f@corp.supernews.com...
>A friend of mine is putting together a middle-school electronics lab, and
>wants to get some good cheap soldering irons. I've been traumatized by
>some really pitiful soldering irons so I don't just want to go price
>shopping. However, since I've been using professional grade, temperature
>controlled irons almost exclusively for years I can't recommend any good
>cheap ones.
>
> Can anyone recommend a soldering iron that will actually work but doesn't
> cost much? I'm thinking of a rough equivalent to the Weller WP-25, but
> that costs less than $20 a pop.
>
> Thanks in advance.
>

Tim -

The Weller TCP series is routinely available surplus and easy to repair.

I see WTCPL, WTCPN & WTCPS systems selling on eBay for $ 25 or less --
I have seen in last 4 weeks at Chicago area hamfests -- very good WTCPS &
WTCPN stations selling for
$ 20 to $ 25 (some may lack the stand - but that is an easy fix/purchase)

The WTCPT (current production model) will usually get a few more dollars
depending upon condition.

Used bases run around $5, sometimes $ 10 for a cosmetic excellent condition
unit.

Factory and manufacturing closeouts also produce large number of soldering
stations in this price range.

New in this price range - you are left with a variety of 120 VAC stick irons
of various wattages.

Greg

2228. Re: Modify a tuner to receive outer frequencies

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-03 20:10:40 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <chaj8n$4r6$1@newshost.mot.com>
Source record: 23513

My first "short wave" receiver was an AM radio (550-1600 kHz). An article in pop electronics or somewhere gave instructions for making two coils to put in parallel with the existing ones (RF & OSC) to raise the frequency up to, I think, the 80 meter range, as I recall. Of course, AM was big then.

--
Steve N, K,9;d, c. i My email has no u's.

"Amy dmith" <dithy@swbellnetcomorg.com> wrote in message news:2ps0bkFp42h8U1@uni-berlin.de...
> You can BUY tuners that cover other bands really cheap. Just like TV tuners
> but cover other bands too. Sharp makes them and others. about $30 a pop.
>
>
> "Martin" <vk2umjATyahooDOTcomDOTau> wrote in message
> news:41385f95$1_1@news.iprimus.com.au...
> > "Peter Parker" <parkerp@NOSPAMalphalink.com.au> wrote in message
> > news:4138431e@news.alphalink.com.au...
> > >
> > > "Gregg" <nospam@unknown.org> wrote in message
> > > news:x2TZc.87548$X12.3296@edtnps84...
> > > > Behold, Tony signalled from keyed 4-1000A filament:
> > > >
> > > > > do exist a simple method for modify a home radio tuner to get FM and
> > AM
> > > > > frequencies out of the range?
> > > >
> > > > Yes, but it's not simple.
> > >
> > > Disagree.
> > >
> > > >Your tracking will be messed up
> > >
> > > Agree. Sensitivity will suffer at one end of the dial.
> > >
> > > >and alignment with an oscilloscope needed.
> > >
> > > Disagree. Just your ears will do.
> > >
> > > Assuming we're talking the old style dial tuners, and not digitally
> tuned
> > > receivers, it's possible to get them to recieve up to 1.8 or 1.9 MHz.
> You

> > > can sometimes hear AM b/cast stations above 1.6 MHz and amateur radio
> 160m
> > > activity (some of which is AM) above 1.8 MHz.
> > >
> > > Details at http//www.alphalink.com.au/~parkerp/160.htm
> > >
> > > At one time I fiddled with an FM clock radio and could hear ambulance
or
> > > police around 80 MHz. The bandwidth was dreadful, signals blotted each
> > other
> > > out and you had to crank up the vol control due to the low deviations
> used
> > > (relative to b/cast WB FM).
> > >
> >
> > Ahh - the good old days!!! I remember putting 10pF ceramic caps across
> the
> > FM side of the tuning cap in an old AM/FM clock radio, then listening to
> the
> > local police on 83-84 MHz. Worked well if you turned up the volume and,
> as
> > you say, had some separation between the freq's you wanted to listen to.
> >
> >
> > Cheers
> >
> > Martin, VK2UMJ
> >
> >
> >
> >
>
>

2229. Re: Good Cheap Soldering Iron

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-03 20:18:07 UTC
From: artie <artie.m@gmail.com>
Message-ID: <030920041318060540%artie.m@gmail.com>
Source record: 23512
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

In article <10jhghqd88iv41f@corp.supernews.com>, Tim Wescott
<tim@wescottnospamdesign.com> wrote:

> A friend of mine is putting together a middle-school electronics lab,
> and wants to get some good cheap soldering irons. I've been traumatized
> by some really pitiful soldering irons so I don't just want to go price
> shopping. However, since I've been using professional grade,
> temperature controlled irons almost exclusively for years I can't
> recommend any good cheap ones.
>
> Can anyone recommend a soldering iron that will actually work but
> doesn't cost much? I'm thinking of a rough equivalent to the Weller
> WP-25, but that costs less than $20 a pop.
>
> Thanks in advance.

Salvage sales? A lot of people at our place took home Weller temp
controlled stations as the labs switched over to Metcal, and I've seen
stacks of Weller irons at salvage places (as companies continue to go
belly-up).

--
Namaste--

2230. Re: Surplus stores in NJ

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-03 21:21:58 UTC
From: K7MEM <k7mem@myrealbox.com>
Message-ID: <chan9n$59v2@cui1.lmms.lmco.com>
Source record: 23515

G.Beat wrote:

> "allen" <allen_card@nospam.com> wrote in message
> news:413730F2.F6AC7268@nospam.com...
>
>>what are you looking for ?
>>
>>http://www.allcorp.com
>>http://www.surplussales.com
>>
>>allen
>>
>>"G.Beat" wrote:
>>
>>
>>>Are there any surplus stores left in Monmouth County area? Red Bank,
>>>etc.
>>>??
>>>
>>>Seems like most of the mfg. is gone from that area of NJ
>>>
>>>w9gb
>>
>
> Allen -
>
> I am very aware of the surplus stores that are mail order and that have
> store fronts in various parts of the US (e.g. MECI - Dayton; Fair Radio -
> Lima; tons in California).
>
> I visit the Northern NJ area on a regular basis and wondered if any surplus
> operation (walk-in) existed since the area I pointed out is next to Fort
> Monmouth - which has grown over past 10 years -- and was largely radio and
> communications oriented when I toured it in mid-1990s. This area is also
> former mfg. location for EAC (division of Hammerlund) that built the R-290A
> receiver during the Vietnam war era and several RCA and Bell Labs/Lucent
> facilities were scattered from this area to the Easton/Allentown, PA area.
>
> My first though is that any surplus operation has closed - in favor of
> tourist ventures associated with "Jersey Shore" -- but I asked.
>
> GB
>
>

It's been a very long time since I have been over that way. I use to go by Ft. Monmouth every day on my way to Monmouth College, now known as Monmouth University. At the time, which was 1967 - 1970, there was a great surplus store just a block from the entrance to Ft. Monmouth. It was kind of off the the right and up a side street, but it wasn't too hard to find. I bought a fully functional BC-457 for $5 there.

But I digress. Why don't you ask the guys in the Ocean-Monmouth Amateur Radio Club, which has a web page at "http://www.qsl.net/n2mo". I'm sure there must be a email address of someone who can answer your question. If they don't know, then probably no one knows.

--
Martin - K7MEM
http://www/k7mem.150m.comf

2231. Re: Modify a tuner to receive outer frequencies

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-03 21:30:33 UTC
From: Peter Parker <parkerp@NOSPAMalphalink.com.au>
Message-ID: <4138e0db@news.alphalink.com.au>
Source record: 23514

"Tony" <---NO_._SPAM---bincit[NO_-_SPAM]@cs.unibo.it> wrote in message
news:ch9j13klb1@le1.cs.unibo.it...
> >
> > Details at http//www.alphalink.com.au/~parkerp/160.htm
> >
> broken

Try http://www.alphalink.com.au/~parkerp/160.htm !

2232. [WTB] [SURPLUS] Air Variable Capacitor 1200 pF

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-03 21:57:51 UTC
From: Alberto <IZ0FMAcutmeawayidontlikespam@ARRL.NET>
Message-ID: <4dphj09ngn2slo78v5tuokvfp1u478902r@4ax.com>
Source record: 23516
Cross-posted to: alt.ham-radio.marketplace,fr.rec.radio.amateur,free.uk.amateur.radio,nl.radio.amateur,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur

Air Variable Capacitor

I need for my homebrew amplifier, a working air variable capacitor: ï¿½

Value:1200 pF;
1000 - 1500 volts (closer to 1500v is better);

sizes
H: 2.75 inches (7 cm)
L: 3.14 inches (8 cm)
W: 5.90 inches (15 cm)

if you have something to offer, please email me:
iz0fmaCUTMEAWAY@CUTMEblusat.com

2233. Re: Good Cheap Soldering Iron

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-03 22:22:47 UTC
From: Rich Webb <bbew.ar@mapson.nozirev.ten>
Message-ID: <v5rhj0pe0qnbodq3fjf60qsatkgbbauplv@4ax.com>
Source record: 23517
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Fri, 03 Sep 2004 12:13:00 -0700, Tim Wescott
<tim@wescottnospamdesign.com> wrote:

>A friend of mine is putting together a middle-school electronics lab,
>and wants to get some good cheap soldering irons. I've been traumatized
>by some really pitiful soldering irons so I don't just want to go price
>shopping. However, since I've been using professional grade,
>temperature controlled irons almost exclusively for years I can't
>recommend any good cheap ones.
>
>Can anyone recommend a soldering iron that will actually work but
>doesn't cost much? I'm thinking of a rough equivalent to the Weller
>WP-25, but that costs less than $20 a pop.

www.circuitspecialists.com has some that look reasonable, although not
under $20 they are temp controlled [*] and have holders. One is about
$30 and the other about $35.

http://www.circuitspecialists.com/prod.itml/icOid/4230
http://www.circuitspecialists.com/prod.itml/icOid/7307

* it says "adjustable output" so may be open-loop control.

I've purchased from them in the past (and also under their other link
www.web-tronics.com) and they seem reputable. YMMV

--
Rich Webb Norfolk, VA

2234. Re: Good Cheap Soldering Iron

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-03 22:44:26 UTC
From: Jim Thompson <thegreatone@example.com>
Message-ID: <2mshj0t1mmttvv9to5lsiu0pbproog39je@4ax.com>
Source record: 23518
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Fri, 03 Sep 2004 22:22:47 GMT, Rich Webb
<bbew.ar@mapson.nozirev.ten> wrote:

>On Fri, 03 Sep 2004 12:13:00 -0700, Tim Wescott
><tim@wescottnospamdesign.com> wrote:
>
>>A friend of mine is putting together a middle-school electronics lab,
>>and wants to get some good cheap soldering irons. I've been traumatized
>>by some really pitiful soldering irons so I don't just want to go price
>>shopping. However, since I've been using professional grade,
>>temperature controlled irons almost exclusively for years I can't
>>recommend any good cheap ones.
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>>Can anyone recommend a soldering iron that will actually work but
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>>WP-25, but that costs less than $20 a pop.
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>www.circuitspecialists.com has some that look reasonable, although not
>under $20 they are temp controlled [*] and have holders. One is about
>$30 and the other about $35.
>
>http://www.circuitspecialists.com/prod.itml/icOid/4230
>http://www.circuitspecialists.com/prod.itml/icOid/7307
>
>* it says "adjustable output" so may be open-loop control.
>
>I've purchased from them in the past (and also under their other link
>www.web-tronics.com) and they seem reputable. YMMV

Circuit Specialists is a good outfit... been around for a long time
(33 years), and they're in my neighborhood (Mesa, AZ), about 20
minutes away.

About the only place in the Phoenix area to buy **real** parts.

...Jim Thompson
--
James E.Thompson, P.E.	mens
Analog Innovations, Inc.	et
Analog/Mixed-Signal ASIC's and Discrete Systems	manus
Phoenix, Arizona Voice:(480)460-2350	
E-mail Address at Website Fax:(480)460-2142	Brass Rat
http://www.analog-innovations.com	1962

I love to cook with wine. Sometimes I even put it in the food.

2235. Re: Good Cheap Soldering Iron

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-03 22:50:13 UTC
From: "G.Beat" <now9spamgb@no.comcast.spam.net>
Message-ID: <Fy6_c.366781$%_6.342952@attbi_s01>
Source record: 23519
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

"Rich Webb" <bbew.ar@mapson.nozirev.ten> wrote in message
news:v5rhj0pe0qnbodq3fjf60qsatkgbbauplv@4ax.com...
> On Fri, 03 Sep 2004 12:13:00 -0700, Tim Wescott
> <tim@wescottnospamdesign.com> wrote:
>
>>A friend of mine is putting together a middle-school electronics lab,
>>and wants to get some good cheap soldering irons. I've been traumatized
>>by some really pitiful soldering irons so I don't just want to go price
>>shopping. However, since I've been using professional grade,
>>temperature controlled irons almost exclusively for years I can't
>>recommend any good cheap ones.
>>
>>Can anyone recommend a soldering iron that will actually work but
>>doesn't cost much? I'm thinking of a rough equivalent to the Weller
>>WP-25, but that costs less than $20 a pop.
>
> www.circuitspecialists.com has some that look reasonable, although not
> under $20 they are temp controlled [*] and have holders. One is about
> $30 and the other about $35.
>
> http://www.circuitspecialists.com/prod.itml/icOid/4230
> http://www.circuitspecialists.com/prod.itml/icOid/7307
>
> * it says "adjustable output" so may be open-loop control.
>
> I've purchased from them in the past (and also under their other link
> www.web-tronics.com) and they seem reputable. YMMV
>
> --
> Rich Webb Norfolk, VA

I did not mention the second soldering station that Rich references for 2
reasons,

1.) Its price was outside your $$ limit

2.) This station is obviously an OEM version from same Singapore mfg. that
makes the Haako 936 BUT with a connector change instead of the Amphenol/Tyco
used by Haako and Circuit Specialists name.

I do know that some Haako dealers aware of this unit are upset with this
offering and were planning to talk to their Haako representative.

gb

2236. Re: Good Cheap Soldering Iron

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-03 23:14:22 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10jhumcejln9f6c@corp.supernews.com>
Source record: 23520
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

Jim Thompson wrote:

>
> Circuit Specialists is a good outfit... been around for a long time
> (33 years), and they're in my neighborhood (Mesa, AZ), about 20
> minutes away.
>
> About the only place in the Phoenix area to buy **real** parts.
>
> ...Jim Thompson

Lucky you. PDX has a Fry's and a little local outfit, but that doesn't count for real parts. I used to live in the Boston area, 30 minutes away from an Active store -- that was nice, particularly since it backed up against Future (same company) & you could get non-catalog items at the counter if you really needed them.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

2237. Re: Good Cheap Soldering Iron

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-04 00:31:42 UTC
From: Jim Thompson <thegreatone@example.com>
Message-ID: <b33ij09lo2a7icf253jk3irgh8lre6k748@4ax.com>
Source record: 23521
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Fri, 03 Sep 2004 16:14:22 -0700, Tim Wescott
<tim@wescottnospamdesign.com> wrote:

>Jim Thompson wrote:
>
>>
>> Circuit Specialists is a good outfit... been around for a long time
>> (33 years), and they're in my neighborhood (Mesa, AZ), about 20
>> minutes away.
>>
>> About the only place in the Phoenix area to buy **real** parts.
>>
>> ...Jim Thompson
>
>Lucky you. PDX has a Fry's and a little local outfit, but that doesn't
>count for real parts. I used to live in the Boston area, 30 minutes
>away from an Active store -- that was nice, particularly since it backed
>up against Future (same company) & you could get non-catalog items at
>the counter if you really needed them.

When I lived in the Boston area Radio Shack was a real parts warehouse
(on Commonwealth Avenue) with a will-call counter (only 45 years ago
;-)

...Jim Thompson
--
James E.Thompson, P.E.	mens
Analog Innovations, Inc.	et
Analog/Mixed-Signal ASIC's and Discrete Systems	manus
Phoenix, Arizona Voice:(480)460-2350	
E-mail Address at Website Fax:(480)460-2142	Brass Rat
http://www.analog-innovations.com	1962

I love to cook with wine. Sometimes I even put it in the food.

2238. Re: Question: HV Variable Caps from Printed Circuit Board

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-04 00:53:14 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <_l8_c.90728$X12.72655@edtnps84>
Source record: 23522

Out of curiosity, why does it have to be out of PCB material?

For voltages 0-5KV, air variables are OK; for 5KV+, vacuum is the only way
to go, IMO.

--
Gregg t3h g33k
"Ratings are for transistors....tubes have guidelines"
http://geek.scorpiorising.ca

2239. Re: Good Cheap Soldering Iron

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-04 00:58:05 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10ji4oqgs9scgb2@corp.supernews.com>
Source record: 23523
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

Jim Thompson wrote:

> On Fri, 03 Sep 2004 16:14:22 -0700, Tim Wescott
> <tim@wescottnospamdesign.com> wrote:
>
>
>>Jim Thompson wrote:
>>
>>
>>>Circuit Specialists is a good outfit... been around for a long time
>>>(33 years), and they're in my neighborhood (Mesa, AZ), about 20
>>>minutes away.
>>>
>>>About the only place in the Phoenix area to buy **real** parts.
>>>
>>> ...Jim Thompson
>>
>>Lucky you. PDX has a Fry's and a little local outfit, but that doesn't
>>count for real parts. I used to live in the Boston area, 30 minutes
>>away from an Active store -- that was nice, particularly since it backed
>>up against Future (same company) & you could get non-catalog items at
>>the counter if you really needed them.
>
>
> When I lived in the Boston area Radio Shack was a real parts warehouse
> (on Commonwealth Avenue) with a will-call counter (only 45 years ago
> ;-)
>
> ...Jim Thompson

That was probably before they got bought by Tandy.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

2240. Re: Good Cheap Soldering Iron

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-04 00:59:38 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10ji4rndi3hl937@corp.supernews.com>
Source record: 23524
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

G.Beat wrote:

> "Tim Wescott" <tim@wescottnospamdesign.com> wrote in message
> news:10jhghqd88iv41f@corp.supernews.com...
>
>
> I see WTCPL, WTCPN & WTCPS systems selling on eBay for $ 25 or less --
> I have seen in last 4 weeks at Chicago area hamfests -- very good WTCPS &
> WTCPN stations selling for
> $ 20 to $ 25 (some may lack the stand - but that is an easy fix/purchase)
>
> Greg
>
>
Yea, I just jumped on there and lost a bit for one -- it went to her
husband.

At least I didn't push the price up too much.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

2241. Re: Good Cheap Soldering Iron

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-04 01:10:23 UTC
From: Spehro Pefhany <speffSNIP@interlogDOTyou.knowwhat>
Message-ID: <496ij0h1rnjcgsd9sk3v5enmm5al0at0ns@4ax.com>
Source record: 23525
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Fri, 03 Sep 2004 16:14:22 -0700, the renowned Tim Wescott
<tim@wescottnospamdesign.com> wrote:

>Jim Thompson wrote:
>
>>
>> Circuit Specialists is a good outfit... been around for a long time
>> (33 years), and they're in my neighborhood (Mesa, AZ), about 20
>> minutes away.
>>
>> About the only place in the Phoenix area to buy **real** parts.
>>
>> ...Jim Thompson
>
>Lucky you. PDX has a Fry's and a little local outfit, but that doesn't
>count for real parts. I used to live in the Boston area, 30 minutes
>away from an Active store -- that was nice, particularly since it backed
>up against Future (same company) & you could get non-catalog items at
>the counter if you really needed them.

I think Active has been spun off now.

Best regards,
Spehro Pefhany
--
"it's the network..." "The Journey is the reward"
speff@interlog.com Info for manufacturers: http://www.trexon.com
Embedded software/hardware/analog Info for designers: http://www.speff.com

2242. Re: Good Cheap Soldering Iron

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-04 01:29:14 UTC
From: "James T. White" <SPAMjtwhiteGUARD@SPAMhal-pcGUARD.org>
Message-ID: <41391a75$0$447$a726171b@news.hal-pc.org>
Source record: 23526
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

"G.Beat" <now9spamgb@no.comcast.spam.net> wrote in message
news:Fy6_c.366781$%_6.342952@attbi_s01...
>
> 2.) This station is obviously an OEM version from same Singapore mfg. that
> makes the Haako 936 BUT with a connector change instead of the Amphenol/Tyco
> used by Haako and Circuit Specialists name.
>
> I do know that some Haako dealers aware of this unit are upset with this
> offering and were planning to talk to their Haako representative.
>
> gb
>
>
If the Hakko dealers are upset about Circuit Specialists, they really ought to
"love" Madell Technology Corp. (http://www.madelltech.com). They have a QK936A
station that not only looks exactly like a Hakko 936, it appears to use the same
connectors. They also sell several hot air stations that look amazingly similar
to Hakko units.
--
James T. White
SPAMjtwhiteGUARD@SPAMhal-pcGUARD.org

Note: Remove SPAM-GUARD to reply.

2243. Re: Good Cheap Soldering Iron

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-04 01:33:35 UTC
From: "G.Beat" <now9spamgb@no.comcast.spam.net>
Message-ID: <PX8_c.122981$mD.72395@attbi_s02>
Source record: 23527
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

"Tim Wescott" <tim@wescottnospamdesign.com> wrote in message
news:10ji4rndi3hl937@corp.supernews.com...
> G.Beat wrote:
>
>> "Tim Wescott" <tim@wescottnospamdesign.com> wrote in message
>> news:10jhghqd88iv41f@corp.supernews.com...
>>
>>
>> I see WTCPL, WTCPN & WTCPS systems selling on eBay for $ 25 or less --
>> I have seen in last 4 weeks at Chicago area hamfests -- very good WTCPS &
>> WTCPN stations selling for
>> $ 20 to $ 25 (some may lack the stand - but that is an easy fix/purchase)
>>
>> Greg
> Yea, I just jumped on there and lost a bit for one -- it went to her
> husband.
>
> At least I didn't push the price up too much.
>

Tim -

How many do you need? I have probably 4 or 5 original NOS Weller WTCP
stations (no neon, no switch) - that I have here.

One middle school talked to me about them - but I think they are getting a
donation from a local mfg. company

Greg
w9gb

2244. Re: Good Cheap Soldering Iron

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-04 03:17:36 UTC
From: dh <devious_henchman@x.com>
Message-ID: <3sa_c.4909$nA6.3118@twister.rdc-kc.rr.com>
Source record: 23528
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

"Tim Wescott" <tim@wescottnospamdesign.com> wrote in message
news:10jhghqd88iv41f@corp.supernews.com...
>A friend of mine is putting together a middle-school electronics lab, and
>wants to get some good cheap soldering irons. I've been traumatized by
>some really pitiful soldering irons so I don't just want to go price
>shopping. However, since I've been using professional grade, temperature
>controlled irons almost exclusively for years I can't recommend any good
>cheap ones.
>
> Can anyone recommend a soldering iron that will actually work but doesn't
> cost much? I'm thinking of a rough equivalent to the Weller WP-25, but
> that costs less than $20 a pop.
>
> Thanks in advance.

This iron costs $25 and works well for DIP down to TSSOP. Along with a cheap
larger iron for big wires and a heat gun for desoldering, it's all I use.
Plus holds less heat than a big soldering iron, lessening damage if someone
grabs the wrong end.
http://www.hmcelectronics.com/cgi-bin/scripts/product/6520-0001

2245. Re: Good Cheap Soldering Iron

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-04 03:34:01 UTC
From: Harry Dellamano <harryd@tdsystems.org>
Message-ID: <Jla_c.507$Q44.77@trnddc09>
Source record: 23529
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

"Tim Wescott" <tim@wescottnospamdesign.com> wrote in message
news:10ji4oqgs9scgb2@corp.supernews.com...
> >>
> >>Lucky you. PDX has a Fry's and a little local outfit, but that doesn't
> >>count for real parts. I used to live in the Boston area, 30 minutes
> >>away from an Active store -- that was nice, particularly since it backed
> >>up against Future (same company) & you could get non-catalog items at
> >>the counter if you really needed them.
> >
> >
> > When I lived in the Boston area Radio Shack was a real parts warehouse
> > (on Commonwealth Avenue) with a will-call counter (only 45 years ago
> > ;-)
> >
> > ...Jim Thompson
>
> That was probably before they got bought by Tandy.
>
> --
>
> Tim Wescott

When I lived in the Boston area, I would drive by Radio Shack on the way to
Scully Square and the real good parts.
Cheers,
Harry

2246. Q: cleaning old Potentiometers

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-04 04:00:55 UTC
From: pdrunen@aol.com
Message-ID: <20040904000055.07554.00000236@mb-m18.aol.com>
Source record: 23530

Hi Group,

Many thanks to my question about the 100MHz OSC, I did recall I asked about them a few years back. I was back looking at a RF down-converter for my FRG-9600.

This was based on an article in Ham Radio Mag around 84 time frame. I good ham sold me a few of the crystals which have 100 MHz on them and the article has the circuit which should get it up to 100 MHz.

Anyway, I have a few volume controls which need to be cleaned, is there anything over-the-counter which would do the job?

Tnx de KJ4UO

2247. Re: cleaning old Potentiometers

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-04 04:02:24 UTC
From: divot <aaa@afafaf.com>
Message-ID: <2pst2gFogqhnU1@uni-berlin.de>
Source record: 23531

"PDRUNEN" <pdrunen@aol.com> wrote in message
news:20040904000055.07554.00000236@mb-m18.aol.com...
> Hi Group,
>
> Many thanks to my question about the 100MHz OSC, I did recall I asked
about
> them a few years back. I was back looking at a RF down-converter for my
> FRG-9600.
>
> This was based on an article in Ham Radio Mag around 84 time frame. I
good ham
> sold me a few of the crystals which have 100 MHz on them and the article
has
> the circuit which should get it up to 100 MHz.
>
> Anyway, I have a few volume controls which need to be cleaned, is there
> anything over-the-counter which would do the job?
>
> Tnx de KJ4UO

Tuner cleaner - hard to find now

2248. Re: Q: cleaning old Potentiometers

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-04 04:25:56 UTC
From: mike@corn2.freeserve.co.uk
Message-ID: <4139439a.362967151@news.freeserve.net>
Source record: 23532

On 04 Sep 2004 04:00:55 GMT, pdrunen@aol.com (PDRUNEN) wrote:

>Anyway, I have a few volume controls which need to be cleaned, is there
>anything over-the-counter which would do the job?
>
WD40 or Carbon Tetra-chloride ?

2249. Re: cleaning old Potentiometers

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-04 04:41:05 UTC
From: jimp@specsol-spam-sux.com
Message-ID: <chbh11$9is$1@mail.specsol.com>
Source record: 23533

divot <aaa@afafaf.com> wrote:

> "PDRUNEN" <pdrunen@aol.com> wrote in message
> news:20040904000055.07554.00000236@mb-m18.aol.com...
> > Hi Group,
> >
> > Many thanks to my question about the 100MHz OSC, I did recall I asked
> about
> > them a few years back. I was back looking at a RF down-converter for my
> > FRG-9600.
> >
> > This was based on an article in Ham Radio Mag around 84 time frame. I
> good ham
> > sold me a few of the crystals which have 100 MHz on them and the article
> has
> > the circuit which should get it up to 100 MHz.
> >
> > Anyway, I have a few volume controls which need to be cleaned, is there
> > anything over-the-counter which would do the job?
> >
> > Tnx de KJ4UO

> Tuner cleaner - hard to find now

Allied, http://www.alliedelec.com has several variaties as does Mouser,
http://www.mouser.com if you don't have a local real electronics store.

--
Jim Pennino

Remove -spam-sux to reply.

2250. Re: Good Cheap Soldering Iron

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-04 04:43:56 UTC
From: Leon Heller <leon_heller@hotmail.com>
Message-ID: <4139480e$0$20254$cc9e4d1f@news-text.dial.pipex.com>
Source record: 23534
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

"Jim Thompson" <thegreatone@example.com> wrote in message
news:b33ij09lo2a7icf253jk3irgh8lre6k748@4ax.com...
> On Fri, 03 Sep 2004 16:14:22 -0700, Tim Wescott
> <tim@wescottnospamdesign.com> wrote:
>
> >Jim Thompson wrote:
> >
> >>
> >> Circuit Specialists is a good outfit... been around for a long time
> >> (33 years), and they're in my neighborhood (Mesa, AZ), about 20
> >> minutes away.
> >>
> >> About the only place in the Phoenix area to buy **real** parts.
> >>
> >> ...Jim Thompson
> >
> >Lucky you. PDX has a Fry's and a little local outfit, but that doesn't
> >count for real parts. I used to live in the Boston area, 30 minutes
> >away from an Active store -- that was nice, particularly since it backed
> >up against Future (same company) & you could get non-catalog items at
> >the counter if you really needed them.
>
> When I lived in the Boston area Radio Shack was a real parts warehouse
> (on Commonwealth Avenue) with a will-call counter (only 45 years ago

Here in the UK virtually all the local component outlets have disappeared.
However, there are plenty of mail order suppliers and one can get most items
the next day.

Leon

2251. Re: Q: cleaning old Potentiometers

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-04 07:58:01 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10jitcdq365533a@corp.supernews.com>
Source record: 23535

Gad, I haven't seen carbon tet for sale in this country for decades. It can seriously damage internal organs and the nervous system, so I wouldn't use the stuff even if you could find some. You can get other, less toxic (although not non-toxic) solvents like toluene or acetone that can do about the same job at paint and DIY stores.

I've had very good luck using WD-40 for the purpose, though. It's a very good solvent, can find its way in through the small gap around a shaft or other places, and leaves a lubricating film on the element. Variable resistor wipers and switch and connector contacts don't seem to have any trouble cutting through the lubricating film to make good contact.

Roy Lewallen, W7EL

Mike W wrote:
> On 04 Sep 2004 04:00:55 GMT, pdrunen@aol.com (PDRUNEN) wrote:
>
>
>
>>Anyway, I have a few volume controls which need to be cleaned, is there
>>anything over-the-counter which would do the job?
>>
>
> WD40 or Carbon Tetra-chloride ?

2252. Ham radio and 9/11 - BBC R4 programme

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-04 10:16:04 UTC
From: Leon Heller <leon_heller@hotmail.com>
Message-ID: <413995e5$0$20249$cc9e4d1f@news-text.dial.pipex.com>
Source record: 23536

This has just been broadcast.

You can hear it with RealAudio:

http://www.bbc.co.uk/radio4/factual/rams/sat1030.ram

73, Leon
--
Leon Heller, G1HSM
http://www.geocities.com/leon_heller

2253. Electronic components availability , was: Good Cheap Soldering Iron

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-04 10:59:21 UTC
From: Highland Ham <abcgm0csz.kn6whxyz@abcntlworldxyz.com>
Message-ID: <deh_c.71$H92.38@newsfe1-gui.ntli.net>
Source record: 23537
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

> Here in the UK virtually all the local component outlets have disappeared.
> However, there are plenty of mail order suppliers and one can get most
items
> the next day.
==========
Indeed ,considering all the States side parts stories , in the UK we are
most fortunate in having a number of small, often '0ne or persons '
companies supplying (by 'next day' mail) a large variety of common and
sometimes not so common parts at very reasonable prices.
Because of their limited turnover they are not forced to levy Value Added
Tax (VAT) = purchase tax.

I am a happy customer (only) of the following 2 , but there are many others
:

www.modecomponents.co.uk

www.jabdog.com

Frank GM0CSZ / KN6WH

2254. Re: cleaning old Potentiometers

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-04 10:59:22 UTC
From: Highland Ham <abcgm0csz.kn6whxyz@abcntlworldxyz.com>
Message-ID: <eeh_c.72$H92.16@newsfe1-gui.ntli.net>
Source record: 23538

> > Anyway, I have a few volume controls which need to be cleaned, is there
> > anything over-the-counter which would do the job?

> Tuner cleaner - hard to find now
==========
For this purpose I normally use 'Contact Cleaner' which is non-chlorinated.

A supplier here in the UK is : Maplin who has stores in many cities and
towns in the UK ,even in Scotland .

Frank GM0CSZ / KN6WH

2255. Re: Good Cheap Soldering Iron

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-04 11:40:19 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <laajj0l01nuukdbo2kct4o1081q2bi52ue@4ax.com>
Source record: 23539
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Fri, 3 Sep 2004 22:17:36 -0500, "dh" <devious_henchman@x.com>
wrote:

>This iron costs $25 and works well for DIP down to TSSOP. Along with a cheap
>larger iron for big wires and a heat gun for desoldering, it's all I use.
>Plus holds less heat than a big soldering iron, lessening damage if someone
>grabs the wrong end.
>http://www.hmcelectronics.com/cgi-bin/scripts/product/6520-0001

Good stuff. My old 25W Antex is still going strong after more than 20
years! I'll probably buy one of these 15W jobs for the odd SMDs I use.
--

"What is now proved was once only imagin'd." - William Blake, 1793.

2256. Re: Good Cheap Soldering Iron

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-04 12:40:07 UTC
From: "G.Beat" <now9spamgb@no.comcast.spam.net>
Message-ID: <HIi_c.116294$Fg5.45581@attbi_s53>
Source record: 23540
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

"James T. White" <SPAMjtwhiteGUARD@SPAMhal-pcGUARD.org> wrote in message
news:41391a75$0$447$a726171b@news.hal-pc.org...
> "G.Beat" <now9spamgb@no.comcast.spam.net> wrote in message
> news:Fy6_c.366781$%_6.342952@attbi_s01...
>>
>> 2.) This station is obviously an OEM version from same Singapore mfg.
>> that
>> makes the Haako 936 BUT with a connector change instead of the
>> Amphenol/Tyco
>> used by Haako and Circuit Specialists name.
>>
>> I do know that some Haako dealers aware of this unit are upset with this
>> offering and were planning to talk to their Haako representative.
>>
>> gb
>>
>>
> If the Hakko dealers are upset about Circuit Specialists, they really
> ought to
> "love" Madell Technology Corp. (http://www.madelltech.com). They have a
> QK936A
> station that not only looks exactly like a Hakko 936, it appears to use
> the same
> connectors. They also sell several hot air stations that look amazingly
> similar
> to Hakko units.
> --
> James T. White
> SPAMjtwhiteGUARD@SPAMhal-pcGUARD.org
>
> Note: Remove SPAM-GUARD to reply.
>
I do not believe thet were as upset with this firm, since the rpice discount
was not as deep and supposedly "one-time" OEM deal -- which as everyone sees
know -- was not true.-- I would not be surprised that some Haako dealers
will drop the product.

GB

2257. Re: Good Cheap Soldering Iron

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-04 14:19:58 UTC
From: Charles DH Williams <C.D.H.Williams@exeter.ac.uk>
Message-ID: <C.D.H.Williams-B8DF96.15192804092004@news.ex.ac.uk>
Source record: 23541
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

In article <10jhghqd88iv41f@corp.supernews.com>,
Tim Wescott <tim@wescottnospamdesign.com> wrote:

> A friend of mine is putting together a middle-school electronics lab,
> and wants to get some good cheap soldering irons.

Remind him to consider the health and safety issues before making
a final decision. In the EC (and perhaps elsewhere) one soon will
only be able to get lead-free solder so the soldering staions will
need to be compatible with this. The fumes from flux also need to
be considered.

The exposure to fumes by a child will likely be minimal but, as
the purpose will be 'educational', there may be a duty to employ
best practice so they end up knowing what a safe workstation is
like.

Charles

2258. Re: Good Cheap Soldering Iron

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-04 15:46:33 UTC
From: Jim Thompson <thegreatone@example.com>
Message-ID: <2qojj0pqnkt28i0usgm8r9i1bb5618gtgu@4ax.com>
Source record: 23542
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Sat, 04 Sep 2004 03:34:01 GMT, "Harry Dellamano"
<harryd@tdsystems.org> wrote:

>
>"Tim Wescott" <tim@wescottnospamdesign.com> wrote in message
>news:10ji4oqgs9scgb2@corp.supernews.com...
>> >>
>> >>Lucky you. PDX has a Fry's and a little local outfit, but that doesn't
>> >>count for real parts. I used to live in the Boston area, 30 minutes
>> >>away from an Active store -- that was nice, particularly since it backed
>> >>up against Future (same company) & you could get non-catalog items at
>> >>the counter if you really needed them.
>> >>
>> >>
>> > When I lived in the Boston area Radio Shack was a real parts warehouse
>> > (on Commonwealth Avenue) with a will-call counter (only 45 years ago
>> > ;-)
>> >>
>> > ...Jim Thompson
>>
>> That was probably before they got bought by Tandy.
>>
>> --
>>
>> Tim Wescott
>
> When I lived in the Boston area, I would drive by Radio Shack on the way to
>Scully Square and the real good parts.
>Cheers,
> Harry

And the Old Howard Casino ?:-)

...Jim Thompson
--
James E.Thompson, P.E.	mens
Analog Innovations, Inc.	et
Analog/Mixed-Signal ASIC's and Discrete Systems	manus
Phoenix, Arizona Voice:(480)460-2350	
E-mail Address at Website Fax:(480)460-2142	Brass Rat
http://www.analog-innovations.com	1962

I love to cook with wine. Sometimes I even put it in the food.

2259. Re: Q: cleaning old Potentiometers

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-04 18:06:10 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2puhs9Fpjbu3U1@uni-berlin.de>
Source record: 23544

WD40 is also excellent as an anti-fly/wasp spray, but
it makes a mess of the interior decor!

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:10jitcdq365533a@corp.supernews.com...
> I've had very good luck using WD-40 for the purpose, though. It's a very
> good solvent, can find its way in through the small gap around a shaft
> or other places, and leaves a lubricating film on the element. Variable
> resistor wipers and switch and connector contacts don't seem to have any
> trouble cutting through the lubricating film to make good contact.

2260. Re: Q: cleaning old Potentiometers

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-04 18:12:54 UTC
From: clifto <clifto@clifto.com>
Message-ID: <66dp02-7gc.ln1@remote.clifto.com>
Source record: 23543

PDRUNEN wrote:
> Anyway, I have a few volume controls which need to be cleaned, is there
> anything over-the-counter which would do the job?

Since my first electronics job in 1967, I've used all manner of stuff to
clean pots, switches, tuners, etc. Tuner cleaners work, but frequently
a dirty pot has to be recleaned every week or so for a while. The best
stuff I've ever used is DeOxit D5 spray; always works, seldom needs
to be reapplied.

Since the EPA took trichloroethane out of tuner cleaners, none of them
seem to work worth a damn.

--
"The Democrats are all over this. Democratic strategists feel John Kerry's
war record means he can beat Bush. They say when it comes down to it, voters
will always vote for a war hero over someone who tried to get out of the war.
I'll be sure to mention that to Bob Dole when I see him." -- Jay Leno

2261. FA:MISC Manual Clean out

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-04 19:18:27 UTC
From: Heytubeguy <heytubeguy@worldnet.att.net>
Message-ID: <7yo_c.553051$Gx4.98156@bgtnsc04-news.ops.worldnet.att.net>
Source record: 23545

Just listed several misc manuals, copies and originals, Heathkit,
Hallicrafters, Yaesu, Bell & Howell, ReVox ...all at:

http://cgi6.ebay.com/ws/eBayISAPI.dll?ViewSellersOtherItems&userid=heytubeguy&completed=0&sort=3&since=-1&include=0&page=1&rows=25

73 heytubeguy

2262. Re: Q: cleaning old Potentiometers

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-04 19:26:08 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10jk5mhokgt3kc9@corp.supernews.com>
Source record: 23546

Bill Turner wrote:

> . . .
> Toluene, acetone and MEK are all powerful solvents and can damage
> plastics and rubber just like carbon tet. They're great for some
> things, but be careful.
> . . .

I agree fully. Sorry, I didn't intend to recommend any of these solvents for cleaning pots or most other electronic parts -- for the reasons Bill states. Acetone and MEK are also highly flammable and not good to breathe. Carbon tet was a good degreaser -- I remember using it to clean the surface of a balky crystal. The solvents I mentioned are also good degreasers and general solvents, but do attack a lot of materials and need to be used with caution.

Roy Lewallen, W7EL

2263. Re: Modify a tuner to receive outer frequencies

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-04 21:45:07 UTC
From: ogrowup@webtv.net
Message-ID: <16925-413A3763-673@storefull-3111.bay.webtv.net>
Source record: 23448

Several years ago I was driving, and stopped for the night at a Howard Johnson's. The only room they had available had no TV, so I brought i an AM-FM portable I had in the car.

The radio had spent some time in the sun, and was pretty well 'cooked', you might say.

The FM section didn't work at all; the AM section picked up SWBC quite well; I spent the evening listening between VOA and BBC.

I do NOT reccomend this method! :-)

"An armed society is a polite society"

Robert A. Heinlein

2264. Re: Q: cleaning old Potentiometers

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-04 21:48:21 UTC
From: tim <tim@nospamforme.com>
Message-ID: <413A3823.3E0C4CEE@nospamforme.com>
Source record: 23547

hi,

http://www.caig.com

Deoxit 5 % or cailube is just great on scratchy and noisy pots.

Makes your controls on your rigs just like new out of the box !

mcm carries caig. http://www.mcmelectronics.com/

The non airosol are not charged a hazmat fee.

73 tim

>
> Anyway, I have a few volume controls which need to be cleaned, is there
> anything over-the-counter which would do the job?
>
> Tnx de KJ4UO

2265. Re: Good Cheap Soldering Iron

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-04 22:44:44 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10jkhanl6mbtb21@corp.supernews.com>
Source record: 23449
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

Leon Heller wrote:
>
>
> Here in the UK virtually all the local component outlets have disappeared.
> However, there are plenty of mail order suppliers and one can get most items
> the next day.
>
> Leon
>
>
It's rare here to be able to waltz down to someplace local and get real components, unless you're lucky enough to happen to be by a big store.

And Fry's don't count for parts (although they still have decent test equipment for sale).

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

2266. Re: Good Cheap Soldering Iron

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-04 22:47:39 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10jkhg6837vn2bb@corp.supernews.com>
Source record: 23451
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

Charles DH Williams wrote:

> In article <10jhghqd88iv41f@corp.supernews.com>,
> Tim Wescott <tim@wescottnospamdesign.com> wrote:
>
>
>>A friend of mine is putting together a middle-school electronics lab,
>>and wants to get some good cheap soldering irons.
>
>
> Remind him to consider the health and safety issues before making
> a final decision. In the EC (and perhaps elsewhere) one soon will
> only be able to get lead-free solder so the soldering staions will
> need to be compatible with this. The fumes from flux also need to
> be considered.
>
> The exposure to fumes by a child will likely be minimal but, as
> the purpose will be 'educational', there may be a duty to employ
> best practice so they end up knowing what a safe workstation is
> like.
>
> Charles

Hmm. Depressingly good point. I just hold my breath while soldering
and wash up when I'm done but I really ought to get a hood --
particularly since I'm training my kid to all my bad habits.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

2267. Re: Good Cheap Soldering Iron

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-04 22:48:12 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10jkhh7p6qjid3@corp.supernews.com>
Source record: 23450
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

Paul Burridge wrote:

> On Fri, 3 Sep 2004 22:17:36 -0500, "dh" <devious_henchman@x.com>
> wrote:
>
>
>>This iron costs $25 and works well for DIP down to TSSOP. Along with a cheap
>>larger iron for big wires and a heat gun for desoldering, it's all I use.
>>Plus holds less heat than a big soldering iron, lessening damage if someone
>>grabs the wrong end.
>>http://www.hmcelectronics.com/cgi-bin/scripts/product/6520-0001
>
>
> Good stuff. My old 25W Antex is still going strong after more than 20
> years! I'll probably buy one of these 15W jobs for the odd SMDs I use.

So what will you use for the normal SMDs? :)

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

2268. A bit of history

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-04 22:57:47 UTC
From: Joe McElvenney <ximac@btinternet.com>
Message-ID: <VA.00000048.0036a1a8@btinternet.com>
Source record: 23453

Hi,

For those who care about such things, here's a bit of WD40
history from the UK site of this U.S. product -

http://www.wd40.co.uk/index.cfm?articleid=31

Cheers - Joe

2269. Re: Good Cheap Soldering Iron

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-04 22:58:45 UTC
From: Rich Grise <null@example.net>
Message-ID: <FMr_c.2322$vI2.294@trnddc02>
Source record: 23452
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

Tim Wescott wrote:

> Charles DH Williams wrote:
>
>> In article <10jhghqd88iv41f@corp.supernews.com>,
>> Tim Wescott <tim@wescottnospamdesign.com> wrote:
>>
>>
>>>A friend of mine is putting together a middle-school electronics lab,
>>>and wants to get some good cheap soldering irons.
>>
>>
>> Remind him to consider the health and safety issues before making
>> a final decision. In the EC (and perhaps elsewhere) one soon will
>> only be able to get lead-free solder so the soldering staions will
>> need to be compatible with this. The fumes from flux also need to
>> be considered.
>>
>> The exposure to fumes by a child will likely be minimal but, as
>> the purpose will be 'educational', there may be a duty to employ
>> best practice so they end up knowing what a safe workstation is
>> like.
>>
>> Charles
>
> Hmm. Depressingly good point. I just hold my breath while soldering
> and wash up when I'm done but I really ought to get a hood --
> particularly since I'm training my kid to all my bad habits.
>
At different places where I've worked with a bunch of people soldering
at a long bench, I've seen muffin fans at each workstation to keep the
rosin smoke out of their face.

Good Luck!
Rich

2270. Re: A bit of history

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-04 23:12:08 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10jkiu9btthqifd@corp.supernews.com>
Source record: 23454

Thanks for the URL!

I first started using it in the late '60s, when the company was still Rocket Chemical. My Colorado duck hunting partner got some from a friend in Oregon -- it wasn't available locally yet. I had an ancient semi-automatic shotgun that would jam from the combination of gun oil, powder residue, and zero-degree temperatures. The discovery of WD-40 was a breakthrough -- it was the only stuff I found that wouldn't result in jamming.

Since then I've used it on everything from door locks to frozen slugs in UHF inductors. I have yet to see anything it'll harm. It's on my short list of Great Inventions of the 20th Century, along with latex paint and plastic drinking straws.

Roy Lewallen, W7EL

Joe McElvenney wrote:

> Hi,
>
> For those who care about such things, here's a bit of WD40
> history from the UK site of this U.S. product -
>
>
> http://www.wd40.co.uk/index.cfm?articleid=31
>
>
> Cheers - Joe
>
>
>

2271. Re: Measureing Q of a pi tank circuit

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-04 23:27:36 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <6njkj0pch05u3a1klg9nn05bdeatba3jij@4ax.com>
Source record: 23455

On Sat, 04 Sep 2004 14:15:12 -0700, Bill Turner <noway@nohow.com>
wrote:

>Is there a way to actually measure the Q of a pi tank circuit as used in
>a tube type amplifier? I know how to calculate it, but I'd like to be
>able to measure it in a real circuit.
>
>I'd like to use an SWR analyzer on the 50 ohm side, put an equivalent
>resistance on the tube side, adjust C1 and C2 for a 1:1 match, and then
>vary the frequency and observe how the SWR changes.
>
>I'm sure there must be a way to correlate the SWR bandwidth with Q, but
>I'm not enough of a mathematician to do it.

Presumably the Q correlates to the TC's shape factor. You could
measure/easily calculate that from just sweeping a signal source
though the TC and measuring the relevant -3dB and (-50dB) signal
levels with a 'scope?
--

"What is now proved was once only imagin'd." - William Blake, 1793.

2272. Amp Supply LK-450 on 10 meters

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-04 23:42:35 UTC
From: "Keith E. Spainhour" <KSpainhour@wilkes.net>
Message-ID: <Kks_c.100$5t4.70@fe39.usenetserver.com>
Source record: 23456

Hello,
Looking at the schematic, the modification does not look hard to duplicate.
Does anyone know of a source for a "kit", or is this going to be a roll you
own thing. Any advice or suggestions would be greatly appreciated.
Thank you,
Keith Spainhour, KT4XW

2273. Re: Good Cheap Soldering Iron

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-05 00:00:41 UTC
From: "G.Beat" <now9spamgb@no.comcast.spam.net>
Message-ID: <JGs_c.128830$mD.74847@attbi_s02>
Source record: 23457
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

"Tim Wescott" <tim@wescottnospamdesign.com> wrote in message
news:10jkhg6837vn2bb@corp.supernews.com...
> Charles DH Williams wrote:
>
>> In article <10jhghqd88iv41f@corp.supernews.com>,
>> Tim Wescott <tim@wescottnospamdesign.com> wrote:
>>
>>
>>>A friend of mine is putting together a middle-school electronics lab, and
>>>wants to get some good cheap soldering irons.
>>
>>
>> Remind him to consider the health and safety issues before making
>> a final decision. In the EC (and perhaps elsewhere) one soon will
>> only be able to get lead-free solder so the soldering staions will
>> need to be compatible with this. The fumes from flux also need to
>> be considered.
>>
>> The exposure to fumes by a child will likely be minimal but, as
>> the purpose will be 'educational', there may be a duty to employ
>> best practice so they end up knowing what a safe workstation is
>> like.
>>
>> Charles
>
> Hmm. Depressingly good point. I just hold my breath while soldering and
> wash up when I'm done but I really ought to get a hood --
> particularly since I'm training my kid to all my bad habits.

Computer muffin fans (12 vdc) are a cheap alternative (which is what is
inside the Haako 493 with a filter in front)

The Haako 493 and similiar clone units are available for $ 20 to $ 35 used -
I picked up one for a workbench last month - $ 30 with the shipping !

Train these kids in proper workbench habits and shop safety - first. The
lead-free initaitve is real and in the US we will be working with a "mixed
environment" (repair of older equipment with compnents that may not be able
to handle high temperatures (70 to 90 degrees higher depending upon
formulation used) required for lead-free solders.

Kester has a major training effort underway - just for lead-free
http://www.kester.com/en-us/index.aspx

G. Beat

2274. Re: Good Cheap Soldering Iron

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-05 00:48:17 UTC
From: Jeff <levy_jeff@hotmail.com>
Message-ID: <lnt_c.122390$Np3.5199037@ursa-nb00s0.nbnet.nb.ca>
Source record: 23458
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

> Train these kids in proper workbench habits and shop safety - first. The
> lead-free initaitve is real and in the US we will be working with a "mixed
> environment" (repair of older equipment with compnents that may not be
able
> to handle high temperatures (70 to 90 degrees higher depending upon
> formulation used) required for lead-free solders.
>

It's more like 15 to 20 degrees C higher for lead free solder.

2275. Re: Good Cheap Soldering Iron

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-05 01:15:08 UTC
From: "G.Beat" <now9spamgb@no.comcast.spam.net>
Message-ID: <wMt_c.374573$%_6.274406@attbi_s01>
Source record: 23459
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

"Jeff" <levy_jeff@hotmail.com> wrote in message
news:lnt_c.122390$Np3.5199037@ursa-nb00s0.nbnet.nb.ca...
>
>> Train these kids in proper workbench habits and shop safety - first. The
>> lead-free initaitve is real and in the US we will be working with a
>> "mixed
>> environment" (repair of older equipment with compnents that may not be
>> able to handle high temperatures (70 to 90 degrees higher depending upon
>> formulation used) required for lead-free solders.
>>
>
> It's more like 15 to 20 degrees C higher for lead free solder.
> Jeff
>

I was referencing F, you are quoting C. I think you math is a bit low for C
(63/37 eutectic is 183 degrees C and Tin/Silver and Tin/Copper eutectics are
at 221 and 227.
Here is the solder alloy temperature chart (Kester's) - so everyone can see
the various formulations, as well as pure tin melting point and the
lead-free formulations.
http://www.kester.com/en-us/technical/alloy.aspx

gb

2276. Re: Good Cheap Soldering Iron

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-05 10:00:25 UTC
From: Highland Ham <abcgm0csz.kn6whxyz@abcntlworldxyz.com>
Message-ID: <ZsB_c.191$wR1.83@newsfe6-gui.ntli.net>
Source record: 23460
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

> > The exposure to fumes by a child will likely be minimal but, as
> > the purpose will be 'educational', there may be a duty to employ
> > best practice so they end up knowing what a safe workstation is
> > like.
> >
> > Charles
>
> Hmm. Depressingly good point. I just hold my breath while soldering
> and wash up when I'm done but I really ought to get a hood --
> particularly since I'm training my kid to all my bad habits.
==========
With the room being ventilated, a small axial fan positioned close to the
soldering area will adequately disperse the fumes .

Frank GM0CSZ / KN6WH

2277. Re: Good Cheap Soldering Iron

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-05 10:22:01 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2q07utFof2tnU1@uni-berlin.de>
Source record: 23461
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

But if you had a whole classroom of N children soldering, then
N dispersals scattered over the N children might result in a
fume density of N * N / N which would be no dispersal at all!

Industrial soldering set-ups have a small vacuum pipe mounted on
the iron close to the tip to draw away fumes.

"Highland Ham" <abcgm0csz.kn6whxyz@abcntlworldxyz.com> wrote in message
news:ZsB_c.191$wR1.83@newsfe6-gui.ntli.net...
> > > The exposure to fumes by a child will likely be minimal but, as
> > > the purpose will be 'educational', there may be a duty to employ
> > > best practice so they end up knowing what a safe workstation is
> > > like.
> > Hmm. Depressingly good point. I just hold my breath while soldering
> > and wash up when I'm done but I really ought to get a hood --
> > particularly since I'm training my kid to all my bad habits.
> With the room being ventilated, a small axial fan positioned close to the
> soldering area will adequately disperse the fumes .

2278. FA: Unbuilt Heathkit: Aux Serial Port

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-05 12:40:19 UTC
From: Heytubeguy <heytubeguy@worldnet.att.net>
Message-ID: <TOD_c.310903$OB3.291499@bgtnsc05-news.ops.worldnet.att.net>
Source record: 23462

+ more stuff too and more coming:

http://cgi6.ebay.com/ws/eBayISAPI.dll?ViewSellersOtherItems&userid=heytubeguy&completed=0&sort=3&since=-1&include=0&page=1&rows=25

Tnx for looking, Heytubeguy

2279. wireless intercom

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-05 12:57:50 UTC
From: pdrunen@aol.com
Message-ID: <20040905085750.22988.00000243@mb-m10.aol.com>
Source record: 23463

Hi Group,

I picked up a surplus Radio Shack 43-218A wireless intercom. A search on the site says they are either on 200KHz, 230KHz or 270KHz depends on the switch setting A,B, or C.

I am considering modifing them so that I can put the HF rig audio into one of the them and be able to listen to the rig while in other areas of the house. Has anyone done this? Comments?

I would also like to understand how the 200KHz is inserted on to the power line, does anyone have a schematic of these or similar units?

Tnx de KJ4UO

2280. Re: Good Cheap Soldering Iron

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-05 16:46:44 UTC
From: bobinphx <rbelisle1@cox.net>
Message-ID: <EiH_c.206902$sh.177972@fed1read06>
Source record: 23464
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

amen!!!!

bob in phx (mesa really, but who in the outside world knows that mesa and phx are neighbors.)

2281. FA: Quality RF components

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-05 17:48:34 UTC
From: Richard Sterry <no_spam@all.ever>
Message-ID: <chfjhn$l4f$1$8300dec7@news.demon.co.uk>
Source record: 23465

Quality RF components for auction on eBay:

RS Multi-turn analogue dial mechanism, new

http://cgi.ebay.co.uk/ws/eBayISAPI.dll?ViewItem&item=3838102366

Miniature air-spaced trimmer capacitors (x3)

http://cgi.ebay.co.uk/ws/eBayISAPI.dll?ViewItem&item=3838102362

Miniature air-spaced trimmer capacitors, new (x12)

http://cgi.ebay.co.uk/ws/eBayISAPI.dll?ViewItem&item=3838102360

Air-spaced variable capacitors (x15)

http://cgi.ebay.co.uk/ws/eBayISAPI.dll?ViewItem&item=3838102357

No reserves.

--
Rick G4BLT

2282. books wanted

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-05 18:10:10 UTC
From: Henry Kolesnik <kolesnik@sbcglobal.net>
Message-ID: <6EI_c.16207$Lp4.5369@newssvr24.news.prodigy.com>
Source record: 23466
Cross-posted to: rec.radio.swap,rec.radio.amateur.homebrew

I'm looking for a used ARRL book:
Experimental Methods in RF Design
by Wes Hayward, W7ZOI, Rick Campbell, KK7B, and Bob Larkin, W7PUA

and Antenna Engineering by Robert Laport.

tnx

--
73
Hank WD5JFR

Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.752 / Virus Database: 503 - Release Date: 9/3/04

2283. Re: books wanted

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-05 18:39:59 UTC
From: Ed <spectrumhog_REMOVE_@starband.net>
Message-ID: <Xns955B768602560spectrumhogstarbandn@63.223.5.248>
Source record: 23467
Cross-posted to: rec.radio.swap,rec.radio.amateur.homebrew

> I'm looking for a used ARRL book:
> Experimental Methods in RF Design
> by Wes Hayward, W7ZOI, Rick Campbell, KK7B, and Bob Larkin, W7PUA
> and Antenna Engineering by Robert Laport.

Have you searched on Amazon.com? They have used books too!

Ed K7AAT

2284. Re: Illegal Porn

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-06 13:47:19 UTC
From: Steve <lafayetteradio4@optonline.net>
Message-ID: <413C6B58.D921A7AC@optonline.net>
Source record: 23468
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.packet,rec.radio.amateur.policy,rec.radio.amateur.space,rec.radio.amateur.swap

YET ANOTHER ATTEMPT TO CATCH A VIRUS FROM THIS A-HOLE

davidross@tampabay.rr.com wrote:

> I've just come across a site that was very disturbing while viewing with my family. This kind of pornography should have a warning. http://www.theparadise.x-y

2285. Re: Illegal Porn

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-06 13:50:32 UTC
From: Dave <noone@nowhere.com>
Message-ID: <pfWdnRxVWJGz9qHcRVn-pA@crocker.com>
Source record: 23469
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.packet,rec.radio.amateur.policy,rec.radio.amateur.space,rec.radio.amateur.swap

i thought it was a pretty good warning when it came in an unsolicited message on a news group. NEVER visit a site that you don't know what you are going there for. and NO, seeing fake pictures of osama is not a good reason.

"Steve" <lafayetteradio4@optonline.net> wrote in message news:413C6B58.D921A7AC@optonline.net...
> YET ANOTHER ATTEMPT TO CATCH A VIRUS FROM THIS A-HOLE
>
> davidross@tampabay.rr.com wrote:
>
> > I've just come across a site that was very disturbing while viewing with my family. This kind of pornography should have a warning.
http://www.theparadise.x-y
>

2286. Re: Illegal Porn

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-06 14:05:29 UTC
From: Steveo <moparholic@hotmail-nospam.com>
Message-ID: <20040906100529.405$ae@newsreader.com>
Source record: 23470
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.packet,rec.radio.amateur.policy,rec.radio.amateur.space,rec.radio.amateur.swap

Steve <lafayetteradio4@optonline.net> wrote:
> --------------3058374DB6CE5FF9AA76B153
> Content-Type: text/plain; charset=us-ascii
> Content-Transfer-Encoding: 7bit
>
> YET ANOTHER ATTEMPT TO CATCH A VIRUS FROM THIS A-HOLE
>
Hey dumbass, stop re-posting the virus url with your
lameass warnings.

Oh, and lose the HTML in these text groups. -sheesh-

2287. Re: Good Cheap Soldering Iron

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-06 17:46:56 UTC
From: clifto <clifto@clifto.com>
Message-ID: <gdku02-kf1.ln1@remote.clifto.com>
Source record: 23471
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

Charles DH Williams wrote:
> The exposure to fumes by a child will likely be minimal but, as
> the purpose will be 'educational', there may be a duty to employ
> best practice so they end up knowing what a safe workstation is
> like.

My first serious soldering was a Knight-Kit at age 14, and I started working full-time as a TV serviceman at age 16. I'm here to tell you that the fumes haven't affected my cheese. Watch it, spaceman, you're crushing my petunias. Nerts. Hot solder pie with crunchy plumbing, yum. No ill effects whatever.

--
"The Democrats are all over this. Democratic strategists feel John Kerry's war record means he can beat Bush. They say when it comes down to it, voters will always vote for a war hero over someone who tried to get out of the war. I'll be sure to mention that to Bob Dole when I see him." -- Jay Leno

2288. Another hopeless text: spot the errors...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-06 18:03:38 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <199pj0hsc9ul4708et992ngk4coatji517@4ax.com>
Source record: 23472
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design,alt.binaries.schematics.electronic

Hi guys,

Still reeling from the screw-up Chris Bowick made of his explanation
of FET biasing, I've come across this little gem which purports to
show the design considerations for a FET amplifier stage which takes
into account the spread of parameters one encounters with FETs:

http://ampdesigns.tripod.com/solved_problems.htm

"Solved problems"? I don't think so. I'm up to six glaring errors
already, but I'm sure there are more yet to be found. How many can
you spot?
--

"What is now proved was once only imagin'd." - William Blake, 1793.

2289. Re: books wanted

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-06 18:30:01 UTC
From: Highland Ham <abcgm0csz.kn6whxyz@abcntlworldxyz.com>
Message-ID: <J02%c.3254$it.1203@newsfe3-gui.ntli.net>
Source record: 23474
Cross-posted to: rec.radio.swap,rec.radio.amateur.homebrew

> I'm looking for a used ARRL book:
> Experimental Methods in RF Design
> by Wes Hayward, W7ZOI, Rick Campbell, KK7B, and Bob Larkin, W7PUA
==========
I can not imagine that this wonderful book is available second hand ,unless
it is part of a SK sale.
For the radio home constructor it must be the best buy for 50 bucks. It is
a treasure.

Frank GM0CSZ / KN6WH

2290. Re: wireless intercom

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-06 18:30:02 UTC
From: Highland Ham <abcgm0csz.kn6whxyz@abcntlworldxyz.com>
Message-ID: <K02%c.3255$it.0@newsfe3-gui.ntli.net>
Source record: 23473

> I picked up a surplus Radio Shack 43-218A wireless intercom. A search on
the
> site says they are either on 200KHz, 230KHz or 270KHz depends on the
switch
> setting A,B, or C.
>
> I am considering modifing them so that I can put the HF rig audio into one
of
> the them and be able to listen to the rig while in other areas of the
house.
> Has anyone done this? Comments?
>
> I would also like to understand how the 200KHz is inserted on to the power
> line, does anyone have a schematic of these or similar units?
==========
I have such a intercom set as well. Upon transmission the built-in
loudspeaker of the 'that time' transmitter serves as a microphone.
Suggest you connect a small 1:1 or about audio transformer across that
loudspeaker . The other transformer winding can then be connected to the
output of the the HF receiver , perhaps with a 10 Ohms resistor across it.
The transformer provides safe galvanic separation .
In addition to the fixed resistor you can fit a parallel say 20 -50 Ohm
potmeter to adjust input signal to the transformer and hence to the
loudspeaker type microphone of the intercom -transmitter. During that type
of duty the intercom microphone might also act as a low level output
loudspeaker of the HF receiver output signal.
If accidentally the intercom 'transmitter ' is set to receive , the HF
receiver audio output stage won't get damaged.

The audio transformer is not critical . I can imagine you can even use a
small power transformer with 2 separate low voltage windings (it being not a
Hi-fi system). It involves some experimentation ....that's part of the
hobby !

If you don't like the above ,you can always try acoustic coupling between
the 'microphone' and a separate rx loudspeaker. Another experiment !
Amateur Radio can be a lively hands-on hobby.

Frank GM0CSZ / KN6WH

2291. Re: European Difficulty - Re: Houston surplus parts store ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-06 19:32:52 UTC
From: Clarence <No@No.Com>
Message-ID: <EX2%c.16874$r26.14157@newssvr27.news.prodigy.com>
Source record: 23476
Cross-posted to:
rec.radio.amateur.homebrew,sci.electronics.components,rec.antiques.radio+phono,rec.radio.amateur.boatanchors

<kashe@sonic.net> wrote in message
news:kr9gj09kit20nsake8bam8tpq89i581koi@4ax.com...
> On Thu, 02 Sep 2004 16:23:20 GMT, "Roger Gt" <not@here.net> wrote:
>
> >
> >"Bob Weiss" <bob.weiss@verizon.net> wrote in message
> >news:6auZc.2391$3Q5.2332@trndny06...
> >: Scott W. Harvey wrote:
> >:
> >: > expensive.
> >: >
> >: > IMHO, These items should be put on a giant barge and sent back
> >to the
> >: > country of origin with the caveat that a trade embargo will be
> >imposed
> >: > against any country that refuses to take them back. Maybe when
> >China,
> >: > Mexico, and other cheap-labor countries experience first hand
> >what a
> >: > colossal pain it is to deal with the ass end of their
> >product's
> >: > mercilessly short life cycles, maybe they won't dump quite so
> >much of
> >: > this junk on our shores.
> >: >
> >: > -Scott
> >:
> >: These countries are ALREADY taking the stuff back, and it is
> >killing
> >: people and destroying the environment in their countries, as
> >well:
> >:
> >: http://greennature.com/article978.html
> >: http://english.epochtimes.com/news/3-9-11/5040.html
> >: http://www.peopleandplanet.net/doc.php?id=1445
> >:
> >: Bob Weiss N2IXK
> >
> >
> >Name one person who has died that can be traced directly to
> >salvaging efforts.
> >

>
> Real sensible question.
>
> Just like the one about two white guys and a black guy
> arriving at Heaven. St. Peter asks the first guy what famous ship was
> sunk by an iceberg. Guy answers, "Titanic" and St. Peter waves him in.
> St. Peter asks the second white guy how many died. Guy says, "1503"
> and St Peter waves him in. Then he turns to the black guy and says,
> "Name them."

Did he? You didn't finish the story. So What happened?

There is a big difference between "name one" and Naming 1503, and I don't get
the connection.

2292. Re: Another hopeless text: spot the errors...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-06 20:02:04 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <MPG.1ba662163b361e1989717@news-central.giganews.com>
Source record: 23477
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design,alt.binaries.schematics.electronic

In article <chids2$k6q$1@newsg3.svr.pol.co.uk>,
john@jjdesigns.fsnet.co.uk says...
>
> I've never come across his book but if it was me I'd have thrown the bloody
> thing away years ago.
> regards
> john
>
>
>

Well, it does say, "If you are from some other university then confirm
with your professors whether these formulae/methods are valid for your
university."

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

2293. Re: Another hopeless text: spot the errors...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-06 20:16:08 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <t8hpj0pubculujfc9t6ojd912cedhnju9b@4ax.com>
Source record: 23478
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design,alt.binaries.schematics.electronic

On Mon, 6 Sep 2004 20:45:24 -0700, "john jardine"
<john@jjdesigns.fsnet.co.uk> wrote:

>I've never come across his book but if it was me I'd have thrown the bloody
>thing away years ago.

Hehe! I don't blame you, John. But I should perhaps have made it
clearer that the link I posted has nothing to do with Bowick. It's
coursework by some lecturer at Bombay University.
--

"What is now proved was once only imagin'd." - William Blake, 1793.

2294. Re: Another hopeless text: spot the errors...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-06 20:30:22 UTC
From: "Michael A. Covington" <look@ai.uga.edu.for.address>
Message-ID: <413cca36$1@mustang.speedfactory.net>
Source record: 23429
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design,alt.binaries.schematics.electronic

"John Miles" <jmiles@pop.removethistomailme.net> wrote in message
news:MPG.1ba662163b361e1989717@news-central.giganews.com...

> Well, it does say, "If you are from some other university then confirm
> with your professors whether these formulae/methods are valid for your
> university."

So are the laws of physics different elsewhere?

2295. Re: European Difficulty - Re: Houston surplus parts store ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-06 20:37:59 UTC
From: "John H." <hagstar@msn.com>
Message-ID: <HU3%c.4726$dC4.3603@trndny06>
Source record: 23479
Cross-posted to:
rec.radio.amateur.homebrew,sci.electronics.components,rec.antiques.radio+phono,rec.radio.amateur.boatanchors

Clarence wrote:

>
>
> Did he? You didn't finish the story. So What happened?
>
> There is a big difference between "name one" and Naming 1503, and I don't get
> the connection.
>
>

How about this joke, maybe it will make things clearer-

Two male priests are fishing with a new female priest recently transferred to their diocese on the shore of a huge lake. It is discovered they left their bait back on shore, and the female priest offers to get it. She calmly steps out of the boat, and walks gently across the water to the shore and picks up the bait without even getting wet.

Before she returns, one priest whispers to the other- "They send us a female priest and she can't even swim."

--
John H.
On the West Coast of New England

NOTE: Please reply to hagstar at verizon,net as this msn address is a spam trap and rarely checked

2296. Re: European Difficulty - Re: Houston surplus parts store ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-06 21:18:45 UTC
From: Clarence <No@No.Com>
Message-ID: <Vu4%c.16908$_U6.8189@newssvr27.news.prodigy.com>
Source record: 23481
Cross-posted to:
rec.radio.amateur.homebrew,sci.electronics.components,rec.antiques.radio+phono,rec.radio.amateur.boatanchors

"John H." <hagstar@msn.com> wrote in message
news:HU3%c.4726$dC4.3603@trndny06...
> Clarence wrote:
> >
> > Did he? You didn't finish the story. So What happened?
> >
> > There is a big difference between "name one" and Naming 1503, and I don't
get
> > the connection.

> How about this joke, maybe it will make things clearer-

So there was no connection.

The question was:

> > Name one person who died that can be traced directly to
> > salvaging efforts.
> >
> Real sensible question.

Changing to trying to tell very old and lame jokes does not answer the
question.

Provide one verifiable name of a person that died as a direct result of Salvage
efforts.

2297. Re: Focus on Tek 2236 Scope

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-06 21:34:12 UTC
From: Rex <me@hutmail.invalid>
Message-ID: <5rlpj0tfsvu4agp096c5v3vmcajs1p7gvh@4ax.com>
Source record: 23482

On Wed, 11 Aug 2004 19:30:01 GMT, Rex <me@hutmail.invalid> wrote:

>On Tue, 10 Aug 2004 17:33:58 -0700, "Michael Melland"
><w9wis@charter.net> wrote:
>
>>IIRC there are 5ea 1/2 watt 1meg or 510K (value depends on scope model)
>>Ohm carbon resistors in there as a focus string that age and get flakey that
>>very often causes this problem. They are in a row by the focus pot on the
>>main board..... check those and replace if off value or open. I had a 2235
>>with the same problem once .... Jim Yanik, an ex Tek employee gave me this
>>info and it fixed mine.
>>
>>That said...BE CAREFUL in a scope..... HIGH VOLTAGE present.... 20,000
>>volts. Don't go inside unless you know what you are doing.
>>
>>Mike, W9WIS
>>
>
>I see the 510Ks in the circuit diagram, so this seems like a good place
>to start looking. Thanks for the tip.
>
>I've worked on HV stuff before, so I think I can avoid killing myself.
>

I just thought I would follow up on the status. I finally found the time
to dig down to these resistors. A bit of a pain getting to them, but not
horrible. I replaced them all (there were 6 of them in the string) and
now focus is great again.

Found one of the 510 K's had become well over a meg.

Thanks for the great tip on what to check.

-Rex, KK6MK

2298. Re: books wanted

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-06 23:15:42 UTC
From: et472@FreeNet.Carleton.CA
Message-ID: <chir2ukdu1@freenet9.carleton.ca>
Source record: 23483
Cross-posted to: rec.radio.swap,rec.radio.amateur.homebrew

"Highland Ham" (abcgm0csz.kn6whxyz@abcntlworldxyz.com) writes:
>> I'm looking for a used ARRL book:
>> Experimental Methods in RF Design
>> by Wes Hayward, W7ZOI, Rick Campbell, KK7B, and Bob Larkin, W7PUA
> ==========
> I can not imagine that this wonderful book is available second hand ,unless
> it is part of a SK sale.
> For the radio home constructor it must be the best buy for 50 bucks. It is
> a treasure.
>
> Frank GM0CSZ / KN6WH
>
>
I think given that it's only about a year old, it is unlikely to find
one used. People are not going to spend the money, and then turn around
and sell it at a loss.

But, given that I have come across some nice books on the used market,
one can never be absolutely certain.

Michael VE2BVW

2299. For women:

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-07 01:41:58 UTC
From: Popcorn Lover <popcorn@N0T-SPAM.COM>
Message-ID: <Xns955CC87BF98F3popcornN0TSPAMCOM@206.124.0.13>
Source record: 23484
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

```
http://groups.yahoo.com/group/AmateurRadioWomen

--
- Popcorn Lover
If you love popcorn too, there are no popcorn groups on usenet but
there IS one in Yahoo Groups:
http://groups.yahoo.com/group/Popcorn_Lovers
The internet's first-ever-in-the-world popcorn group!
Share the word on making great popcorn - come join us!
```

2300. Re: Illegal Porn

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-07 02:19:05 UTC
From: Steve <lafayetteradio4@optonline.net>
Message-ID: <413D1B8B.9E443545@optonline.net>
Source record: 23485
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.packet,rec.radio.amateur.policy,rec.radio.amateur.space,rec.radio.amateur.swap

Hey noodnick, if you looked at it you would have seen it has been
changed
so it won't connect to anything.
Maybe you should post warnings to the new internet users instead
of bitching about mine!

Hey dumbass, stop re-posting the virus url with your
lameass warnings.

Steveo wrote:

> Steve <lafayetteradio4@optonline.net> wrote:
> > --------------3058374DB6CE5FF9AA76B153
> > Content-Type: text/plain; charset=us-ascii
> > Content-Transfer-Encoding: 7bit
> >
> > YET ANOTHER ATTEMPT TO CATCH A VIRUS FROM THIS A-HOLE
> >
> Hey dumbass, stop re-posting the virus url with your
> lameass warnings.

> I've just come across a site that was very disturbing while viewing
> with
> my family. This kind of pornography should have a warning.
> http://www.theparadise.x-y
>
> Oh, and lose the HTML in these text groups. -sheesh-

2301. Re: Another hopeless text: spot the errors...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-07 03:45:24 UTC
From: john jardine <john@jjdesigns.fsnet.co.uk>
Message-ID: <chids2$k6q$1@newsg3.svr.pol.co.uk>
Source record: 23475
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design,alt.binaries.schematics.electronic

"Paul Burridge" <pb@notthisbit.osiris1.co.uk> wrote in message
news:199pj0hsc9ul4708et992ngk4coatji517@4ax.com...
> Hi guys,
>
> Still reeling from the screw-up Chris Bowick made of his explanation
> of FET biasing, I've come across this little gem which purports to
> show the design considerations for a FET amplifier stage which takes
> into account the spread of parameters one encounters with FETs:
>
> http://ampdesigns.tripod.com/solved_problems.htm
>
> "Solved problems"? I don't think so. I'm up to six glaring errors
> already, but I'm sure there are more yet to be found. How many can
> *you* spot?
> --
>
> "What is now proved was once only imagin'd." - William Blake, 1793.

I've never come across his book but if it was me I'd have thrown the bloody
thing away years ago.
regards
john

2302. Re: Another hopeless text: spot the errors...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-07 04:54:18 UTC
From: john jardine <john@jjdesigns.fsnet.co.uk>
Message-ID: <chihstakk2@news8.svr.pol.co.uk>
Source record: 23480
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design,alt.binaries.schematics.electronic

"Paul Burridge" <pb@notthisbit.osiris1.co.uk> wrote in message
news:t8hpj0pubculujfc9t6ojd912cedhnju9b@4ax.com...
> On Mon, 6 Sep 2004 20:45:24 -0700, "john jardine"
> <john@jjdesigns.fsnet.co.uk> wrote:
>
> >I've never come across his book but if it was me I'd have thrown the
bloody
> >thing away years ago.
>
> Hehe! I don't blame you, John. But I should perhaps have made it
> clearer that the link I posted has nothing to do with Bowick. It's
> coursework by some lecturer at Bombay University.
> --
>
> "What is now proved was once only imagin'd." - William Blake, 1793.

I'll try pay attention next time :-(

2303. Re: European Difficulty - Re: Houston surplus parts store ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-07 07:41:39 UTC
From: Clarence <No@No.Com>
Message-ID: <TCd%c.16690$Ti7.2002@newssvr29.news.prodigy.com>
Source record: 23486
Cross-posted to:
rec.radio.amateur.homebrew,sci.electronics.components,rec.antiques.radio+phono,rec.radio.amateur.boatanchors

"Clarence" <No@No.Com> wrote in message
news:Vu4%c.16908$_U6.8189@newssvr27.news.prodigy.com...
>
> "John H." <hagstar@msn.com> wrote in message
> news:HU3%c.4726$dC4.3603@trndny06...
> > Clarence wrote:
> > >
> > > Did he? You didn't finish the story. So What happened?
> > >
> > > There is a big difference between "name one" and Naming 1503, and I don't
> get
> > > the connection.
> > How about this joke, maybe it will make things clearer-
> So there was no connection.
> The question was:
> > > Name one person who died that can be traced directly to
> > > salvaging efforts.
> > Real sensible question.
>
> Changing to trying to tell very old and lame jokes does not answer the
> question.

> Provide one verifiable name of a person that died as a direct result of
Salvage
> efforts.

After no response.
I thought not.
>
>
>
>

2304. Amplifier Oscillation

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-07 13:16:35 UTC
From: Chris <REMOVEchris1379ME@bigfoot.com>
Message-ID: <Twi%c.9583$w%6.6886@newsread1.news.pas.earthlink.net>
Source record: 23487

I have 2 amplifiers with similar problems. One is an EB63 kit (http://www.communication-concepts.com/eb63.htm) with MRF455's. The other is an old broadband "brick" with MRF450a's. They operate normally into a dummy load. The problems start when connected to an antenna. At low output levels, there are multiple frequencies present. It's not just harmonics. At 28 MHz, there is a very clear .5 to 2 MHz component visible on the oscilloscope. On the power/SWR meter, it looks like a high SWR and incorrectly high power reading. When the output power of the amp gets close to max, the oscillations disappear. The scope trace, power, and SWR readings are normal. This happens on several mobile antennas and an inverted V so I can't blame the antenna or cable. I also have 3 other amps that work perfectly in the same setups. I'll post the scope traces to alt.binaries.pictures.radio if someone wants to look at them. They are also posted at the bottom of http://home.earthlink.net/~cjohnson1379/ . I have tried collector to base feedback and different combinations of capacitors on the input and output sides with little or no change. What about changing the number of turns on the transformers? I hope someone can figure this out because I'm about to go nuts. Thanks so much to anyone who can help.

Chris

2305. Re: Amplifier Oscillation

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-07 15:46:01 UTC
From: Rick Karlquist N6RK <richard@karlquist.removethis.com>
Message-ID: <ZIk%c.258469$8_6.8867@attbi_s04>
Source record: 23488

You need to decrease the feedback resistor from collector
to base; too much low frequency gain.

Rick N6RK

"Chris" <REMOVEchris1379ME@bigfoot.com> wrote in message
news:Twi%c.9583$w%6.6886@newsread1.news.pas.earthlink.net...
> I have 2 amplifiers with similar problems. One is an EB63 kit (
> http://www.communication-concepts.com/eb63.htm) with MRF455's. The other
is
> an old broadband "brick" with MRF450a's. They operate normally into a
dummy
> load. The problems start when connected to an antenna. At low output
levels,
> there are multiple frequencies present. It's not just harmonics. At 28
MHz,
> there is a very clear .5 to 2 MHz component visible on the oscilloscope.
On
> the power/SWR meter, it looks like a high SWR and incorrectly high power
> reading. When the output power of the amp gets close to max, the
> oscillations disappear. The scope trace, power, and SWR readings are
normal.
> This happens on several mobile antennas and an inverted V so I can't blame
> the antenna or cable. I also have 3 other amps that work perfectly in the
> same setups. I'll post the scope traces to alt.binaries.pictures.radio if
> someone wants to look at them. They are also posted at the bottom of
> http://home.earthlink.net/~cjohnson1379/ . I have tried collector to base
> feedback and different combinations of capacitors on the input and output
> sides with little or no change. What about changing the number of turns on
> the transformers? I hope someone can figure this out because I'm about to
go
> nuts. Thanks so much to anyone who can help.
>
> Chris
>
>

2306. Re: Amplifier Oscillation

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-07 15:48:48 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <nolrj0tkljng97m6tgf75bn6pdbdrcgdpj@4ax.com>
Source record: 23489

On Tue, 07 Sep 2004 13:16:35 GMT, "Chris"
<REMOVEchris1379ME@bigfoot.com> wrote:

>I have 2 amplifiers with similar problems. One is an EB63 kit (
>http://www.communication-concepts.com/eb63.htm) with MRF455's. The other is
>an old broadband "brick" with MRF450a's. They operate normally into a dummy
>load. The problems start when connected to an antenna. At low output levels,
>there are multiple frequencies present. It's not just harmonics. At 28 MHz,
>there is a very clear .5 to 2 MHz component visible on the oscilloscope. On
>the power/SWR meter, it looks like a high SWR and incorrectly high power
>reading. When the output power of the amp gets close to max, the
>oscillations disappear. The scope trace, power, and SWR readings are normal.
>This happens on several mobile antennas and an inverted V so I can't blame
>the antenna or cable. I also have 3 other amps that work perfectly in the
>same setups. I'll post the scope traces to alt.binaries.pictures.radio if
>someone wants to look at them. They are also posted at the bottom of
>http://home.earthlink.net/~cjohnson1379/ . I have tried collector to base
>feedback and different combinations of capacitors on the input and output
>sides with little or no change. What about changing the number of turns on
>the transformers? I hope someone can figure this out because I'm about to go
>nuts. Thanks so much to anyone who can help.

It looks salvageable. The quick and cheap way to get operational would
just be to improve the post-PA filtering, but that won't prevent
parasitic oscillation of the PA itself if that's where the fault lies.
The problem may well be a few stages back. I'd try using the 'scope to
check the purity of the pre-PA stages back along the tx chain and see
where exactly the instability arises. Then you'll have a much better
idea how to fix the problem. If your lucky it might just be poor
decoupling at an earlier, low-power stage.
--

"What is now proved was once only imagin'd." - William Blake, 1793.

2307. Is ours the most technical hobby in the world?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-07 15:51:04 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <53mrj0l5rjcq1n2s95gaqdnnd6grnnf120@4ax.com>
Source record: 23490

Hi guys,

Well do you think it is? I personally can't think of any other
passtime accessible to the individual which requires such a high
degree of technical knowledge to succeed at. If anyone can think of
something more complex, let's hear it!

Paul
--

"What is now proved was once only imagin'd." - William Blake, 1793.

2308. Re: Amplifier Oscillation

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-07 16:06:37 UTC
From: fmmck@aol.com
Message-ID: <20040907120637.11452.00003108@mb-m23.aol.com>
Source record: 23491

<< They operate normally into a dummy
load. The problems start when connected to an antenna. At low output levels, there are multiple frequencies present. It's not just harmonics. >>

Chris-

I agree with Allison that you should look at the power bus. You often find designs with two or three parallel filter capacitors with values spread over the range of 100 pf to 10 uf, all with shortest possible leads including PCB tracks. As I recall, this was part of the cure for oscillations in the Heathkit 10W Walkie-Talkie amplifier.

Then there is the effect of load impedance (or input impedance on the previous stage) and its relationship to a VSWR protection circuit. With a resistive load, even out-of-band signals are matched, so there is no drive reduction. Therefore you have full power which seems to prevent the other-frequency oscillation from occurring. However, a real-world antenna may be matched at the intended frequency, but not at out-of-band frequencies. The VSWR protection circuit reduces drive, which allows the spurious oscillation to grow, causing more out-of-band signal, reducing drive even further. The result is a complex waveform consisting of intermodulation products of the intended signal and the spurious signal(s). This effect would be more likely to occur where drive reduction is accomplished before the stage that is oscillating.

Although not a cure, you might try defeating any VSWR protection circuit in either the driver or the amplifier, and see if the problem is reduced.

I found an almost identical problem in the old Regency HR-6 and BTL-301 tranceivers. The only thing that actually seemed to cure the problem was to short the emitter lead of the final multiplier stage to ground. I noticed that later versions of the BTL-301 moved the VSWR protection drive reduction from an early stage to a later stage. This made significant improvement, but wasn't a perfect cure.

73, Fred, K4DII

2309. Re: Is ours the most technical hobby in the world?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-07 16:21:33 UTC
From: wa8ulx@aol.com
Message-ID: <20040907122133.08741.00000272@mb-m13.aol.com>
Source record: 23492

>Well do you think it is? I personally can't think of any other
>passtime accessible to the individual which requires such a high
>degree of technical knowledge to succeed at

Your KIDDING RIGHT, what Technical knowledge?

>If anyone can think of
>something more complex, let's hear it!

Basket Weaving 101, probably has more Technical knowlege then HAM RADIO has
today.

2310. Re: Amplifier Oscillation

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-07 17:14:00 UTC
From: Chris <REMOVEchris1379ME@bigfoot.com>
Message-ID: <s%I%c.457$xA1.247@newsread3.news.pas.earthlink.net>
Source record: 23493

The driving radio is an RCI2950. The radio output goes directly into the input transformer. There is a VSWR of 1.2:1 between the radio and the amp. I also tried adding various caps on the power lines to no avail. As mentioned earlier, I have another amp with MRF455's with no problems. The only big difference I see in the circuits is thatr the good amp has an RC network between the input transformer and the bases.

Chris
"Fred McKenzie" <fmmck@aol.com> wrote in message
news:20040907120637.11452.00003108@mb-m23.aol.com...
| << They operate normally into a dummy
| load. The problems start when connected to an antenna. At low output
levels,
| there are multiple frequencies present. It's not just harmonics. >>
|
| Chris-
|
| I agree with Allison that you should look at the power bus. You often
find
| designs with two or three parallel filter capacitors with values spread
over
| the range of 100 pf to 10 uf, all with shortest possible leads including
PCB
| tracks. As I recall, this was part of the cure for oscillations in the
| Heathkit 10W Walkie-Talkie amplifier.
|
| Then there is the effect of load impedance (or input impedance on the
previous
| stage) and its relationship to a VSWR protection circuit. With a
resistive
| load, even out-of-band signals are matched, so there is no drive
reduction.
| Therefore you have full power which seems to prevent the other-frequency
| oscillation from occurring. However, a real-world antenna may be matched
at
| the intended frequency, but not at out-of-band frequencies. The VSWR
| protection circuit reduces drive, which allows the spurious oscillation to
| grow, causing more out-of-band signal, reducing drive even further. The
result
| is a complex waveform consisting of intermodulation products of the
intended
| signal and the spurious signal(s). This effect would be more likely to
occur
| where drive reduction is accomplished before the stage that is

oscillating.
|
| Although not a cure, you might try defeating any VSWR protection circuit
in
| either the driver or the amplifier, and see if the problem is reduced.
|
| I found an almost identical problem in the old Regency HR-6 and BTL-301
| tranceivers. The only thing that actually seemed to cure the problem was
to
| short the emitter lead of the final multiplier stage to ground. I noticed
that
| later versions of the BTL-301 moved the VSWR protection drive reduction
from an
| early stage to a later stage. This made significant improvement, but
wasn't a
| perfect cure.
|
| 73, Fred, K4DII
|

2311. Re: Amplifier Oscillation

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-07 17:32:14 UTC
From: Chris <REMOVEchris1379ME@bigfoot.com>
Message-ID: <ygm%c.9686$w%6.7967@newsread1.news.pas.earthlink.net>
Source record: 23494

I had a problem with the 454's. Using all the supplied parts, the output was low and the current draw was high. This was solved by replacing the 910pf cap between the collectors with a smaller value. I never tried it on an antenna then. One of the 454's died because the radio output was too high - my mistake. Once I get the amp working, is there a way to reduce the input to the amp? I've seen some designs with a simple voltge divider. Would that work OK?

Thanks,
Chris
<nospam@nouce.bellatlantic.net> wrote in message
news:0girj05s3panmje63kqu9gvn9bedb8mpdb@4ax.com...
| >On Tue, 07 Sep 2004 13:16:35 GMT, "Chris"
| ><REMOVEchris1379ME@bigfoot.com> wrote:
| >
| >>I have 2 amplifiers with similar problems. One is an EB63 kit (
| >>http://www.communication-concepts.com/eb63.htm) with MRF455's. The
other is
|
| Oh, and if you subbed MRF455s for the specifed MRF454... all bets are
| off.
|
|

2312. Re: Is ours the most technical hobby in the world?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-07 17:39:21 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2q6an7Frtj6oU1@uni-berlin.de>
Source record: 23495

Yes it is, but such a characteristic seems to be totally lost
on most newcomers who are no better than CBers who buy
their complete station off-the-shelf and even send it back to the
dealer for repairs.

Sadly they are misled by the Mongolian hordes of
CBers-Masquerading-As-Radio-Hams who have corrupted
Ham Radio in recent years. (And you don't have to have ever
held a CB licence to qualify for membership of that class
of failures - merely having a station of entirely off-the-shelf
consumer-type purchases puts you fairly and squarely
in that group!)

"Paul Burridge" <pb@notthisbit.osiris1.co.uk> wrote in message
news:53mrj0l5rjcq1n2s95gaqdnnd6grnnf120@4ax.com...
> Well do you think it is? I personally can't think of any other
> passtime accessible to the individual which requires such a high
> degree of technical knowledge to succeed at. If anyone can think of
> something more complex, let's hear it!

2313. Re: Amplifier Oscillation

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-07 18:16:25 UTC
From: Chris <REMOVEchris1379ME@bigfoot.com>
Message-ID: <ZVm%c.9712$w%6.7710@newsread1.news.pas.earthlink.net>
Source record: 23496

Thanks alot. I saw one vendor that lists SD1446 as a sub for 454's. I realize they may work for some applications and not others. Will they work here?

Chris
<nospam@nouce.bellatlantic.net> wrote in message news:6irrj0ttj1ruim33ukjqn7e51vupielvfk@4ax.com...
| On Tue, 07 Sep 2004 17:14:00 GMT, "Chris"
| <REMOVEchris1379ME@bigfoot.com> wrote:
|
| >The driving radio is an RCI2950. The radio output goes directly into the
| >input transformer. There is a VSWR of 1.2:1 between the radio and the amp. I
| >also tried adding various caps on the power lines to no avail. As mentioned
| >earlier, I have another amp with MRF455's with no problems. The only big
| >difference I see in the circuits is thatr the good amp has an RC network
| >between the input transformer and the bases.
| >
| Chris,
|
| That amp was designed around MRF454 not 455 there is a difference
| and the 455 has a tad more gain and different match. I might add the
| MRF454 is a 80W device and the 455 is only 60w as well. The
| differences are not always apparent and the output match and reverse
| transfer are very different. Pull the datasheets for both off the
| 'net and look at them.
|
| The design requires a matched pair. The bias seems to be best
| at around 200-300ma per transistor. Any asymetery in grounding
| (that includes mounting the PCB to the heatsink) can also cause
| problems. The transformers MUST be wound as specified using
| materials as specified.
|
| If you going to try and tame the beast. Try this. From collector to
| base on each transistor: series connect, 12ohms (2w non inductive),
| .33uH molded choke and capacitor pair (10uf and .1uf in parallel).
| the leads for these must be as short as possible (none or nearly so).
| This may work. If not:
|
| Feedback version two: FT50-43 torid with 10t #26 from collector to
| collector, pass through the center a 4.7ohm 1/2watt resistor and
| connect the leads to the bases. If the leads are backward it will
| oscillate in that c ase exchange the leads for the 10turn winding

| between the collectors. If this doesnt work used MRF454s.
|
| If feedback works expect about 1-2db of gain reduction and a
| corosponding increase in required drive for the same output power.
| However, do NOT exceed 5W input power of the transistors will cook.
|
| Also if you scope the power leads at the junction of the output
| transformer and see anything going on there in the below 5mhz range
| you bypassing on the board is wrong or grounding ineffective.
|
| One OBTW: input and output connectors, case and grounds. I've seen
| one that when on the bench open worked as predicted. In the case
| built by the owner it would take off. Seems the case and the SO239s
| mounted to it were RF wise not at the same ground as the groundplane
| of the PCB and created a untidy feedback path.
|
| I've built "EB63", it was featured as an app note from Moto some 20+
| years ago and it was a stable design using the MRF454s. I had little
| trouble with it as a base design for a 18-35mhz commercial
| application.
|
|
| Allison

2314. Re: Is ours the most technical hobby in the world?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-07 19:26:47 UTC
From: John Walton <jdwalton@comcast.net>
Message-ID: <zfadnUd5v7D1l6PcRVn-vQ@comcast.com>
Source record: 23497

Actually Mongolian culture is very advanced. You can even golf there.

Jack

"Airy R. Bean" <me@privacy.net> wrote in message
news:2q6an7Frtj6oU1@uni-berlin.de...
> Yes it is, but such a characteristic seems to be totally lost
> on most newcomers who are no better than CBers who buy
> their complete station off-the-shelf and even send it back to the
> dealer for repairs.
>
> Sadly they are misled by the Mongolian hordes of
> CBers-Masquerading-As-Radio-Hams who have corrupted
> Ham Radio in recent years. (And you don't have to have ever
> held a CB licence to qualify for membership of that class
> of failures - merely having a station of entirely off-the-shelf
> consumer-type purchases puts you fairly and squarely
> in that group!)
>
> "Paul Burridge" <pb@notthisbit.osiris1.co.uk> wrote in message
> news:53mrj0l5rjcq1n2s95gaqdnnd6grnnf120@4ax.com...
> > Well do you think it is? I personally can't think of any other
> > passtime accessible to the individual which requires such a high
> > degree of technical knowledge to succeed at. If anyone can think of
> > something more complex, let's hear it!
>
>

2315. Re: Is ours the most technical hobby in the world?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-07 21:11:52 UTC
From: Minion <Minion@battlebots.com>
Message-ID: <413E2417.8DCB56A8@battlebots.com>
Source record: 23398

How about amateur robotics and spacecraft ?

Minion

Paul wrote:

> Hi guys,
>
> Well do you think it is? I personally can't think of any other
> passtime accessible to the individual which requires such a high
> degree of technical knowledge to succeed at. If anyone can think of
> something more complex, let's hear it!
>
> Paul
> --
>
> "What is now proved was once only imagin'd." - William Blake, 1793.

2316. Re: Is ours the most technical hobby in the world?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-07 21:37:10 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <aSp%c.78481$jZ5.63654@clgrps13>
Source record: 23399

Behold, Paul Burridge signalled from keyed 4-1000A filament:

> Hi guys,
>
> Well do you think it is? I personally can't think of any other passtime
> accessible to the individual which requires such a high degree of
> technical knowledge to succeed at. If anyone can think of something more
> complex, let's hear it!

It used to be and still is for those homebrewers.

Alas, the fella that mentioned the newbies as CB-wanna-be-hams is true for
most now.

--
Gregg t3h g33k
"Ratings are for transistors....tubes have guidelines"
http://geek.scorpiorising.ca

2317. Re: Is ours the most technical hobby in the world?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-07 21:50:41 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <d6bsj09bft5i4jm7te1gerei1uu564dmig@4ax.com>
Source record: 23401

On 07 Sep 2004 16:21:33 GMT, wa8ulx@aol.com (WA8ULX) wrote:

>>Well do you think it is? I personally can't think of any other
>>passtime accessible to the individual which requires such a high
>>degree of technical knowledge to succeed at
>
>Your KIDDING RIGHT, what Technical knowledge?
>
>>If anyone can think of
>>something more complex, let's hear it!
>
>Basket Weaving 101, probably has more Technical knowlege then HAM RADIO has
>today.

Erm, I assume you didn't realise I was speaking parochially of
strictly the *homebrew* side of it; in particular those of us who not
only build our own stuff, but *design* it as well???
--

"What is now proved was once only imagin'd." - William Blake, 1793.

2318. Re: Is ours the most technical hobby in the world?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-07 21:56:31 UTC
From: wa8ulx@aol.com
Message-ID: <20040907175631.25357.00000056@mb-m22.aol.com>
Source record: 23402

> I was speaking parochially of
>strictly the *homebrew* side of it; in particular those of us who not
>only build our own stuff, but *design* it as well???

Well Im affraid that is Very Very Very small minority anymore. Most of the new guys have a hard time figure out where to plug in the MIC.

2319. modify an AM tuner to go on 4mhz!!!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-07 22:36:01 UTC
From: Tony <---NO_._SPAM---bincit>
Message-ID: <chld2h$8bn$1@le1.cs.unibo.it>
Source record: 23403

In you opinion, can I push my AM tuner from its 500-1600 khz to 4000khz
using some of the various mods presented in the previous post?
Or it's really too much?
--

2320. Re: Amplifier Oscillation

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-07 23:04:08 UTC
From: Chris <REMOVEchris1379ME@bigfoot.com>
Message-ID: <I7r%c.699$xA1.687@newsread3.news.pas.earthlink.net>
Source record: 23404

Thanks for the reply. The EB63 is in a box right now so I'm playing with the other one. The toroid with a resistor seems to help it but a piece of wire all but eliminated it. I don't know the properties of the core but it has the same dimensions and was wound with #20 wire. This amp uses 2 GE 104P1 transistors that I had around here. I think it originally had TRW transistors and an 80 watt output. Is it OK to vary the resistor and number of turns to achieve best results?

Thanks,
Chris
<nospam@nouce.bellatlantic.net> wrote in message
news:6irrj0ttj1ruim33ukjqn7e51vupielvfk@4ax.com...
| On Tue, 07 Sep 2004 17:14:00 GMT, "Chris"
| <REMOVEchris1379ME@bigfoot.com> wrote:
|
| >The driving radio is an RCI2950. The radio output goes directly into the
| >input transformer. There is a VSWR of 1.2:1 between the radio and the
amp. I
| >also tried adding various caps on the power lines to no avail. As
mentioned
| >earlier, I have another amp with MRF455's with no problems. The only big
| >difference I see in the circuits is thatr the good amp has an RC network
| >between the input transformer and the bases.
| >
| Chris,
|
| That amp was designed around MRF454 not 455 there is a difference
| and the 455 has a tad more gain and different match. I might add the
| MRF454 is a 80W device and the 455 is only 60w as well. The
| differences are not always apparent and the output match and reverse
| transfer are very different. Pull the datasheets for both off the
| 'net and look at them.
|
| The design requires a matched pair. The bias seems to be best
| at around 200-300ma per transistor. Any asymetery in grounding
| (that includes mounting the PCB to the heatsink) can also cause
| problems. The transformers MUST be wound as specified using
| materials as specified.
|
| If you going to try and tame the beast. Try this. From collector to
| base on each transistor: series connect, 12ohms (2w non inductive),
| .33uH molded choke and capacitor pair (10uf and .1uf in parallel).
| the leads for these must be as short as possible (none or nearly so).
| This may work. If not:

|
| Feedback version two: FT50-43 torid with 10t #26 from collector to
| collector, pass through the center a 4.7ohm 1/2watt resistor and
| connect the leads to the bases. If the leads are backward it will
| oscillate in that c ase exchange the leads for the 10turn winding
| between the collectors. If this doesnt work used MRF454s.
|
| If feedback works expect about 1-2db of gain reduction and a
| corosponding increase in required drive for the same output power.
| However, do NOT exceed 5W input power of the transistors will cook.
|
| Also if you scope the power leads at the junction of the output
| transformer and see anything going on there in the below 5mhz range
| you bypassing on the board is wrong or grounding ineffective.
|
| One OBTW: input and output connectors, case and grounds. I've seen
| one that when on the bench open worked as predicted. In the case
| built by the owner it would take off. Seems the case and the SO239s
| mounted to it were RF wise not at the same ground as the groundplane
| of the PCB and created a untidy feedback path.
|
| I've built "EB63", it was featured as an app note from Moto some 20+
| years ago and it was a stable design using the MRF454s. I had little
| trouble with it as a base design for a 18-35mhz commercial
| application.
|
|
| Allison

2321. Re: Amplifier Oscillation

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-07 23:07:39 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <uofsj053sdi575fmdleoco1dqde5u6ao35@4ax.com>
Source record: 23405

On Tue, 07 Sep 2004 17:32:14 GMT, "Chris"
<REMOVEchris1379ME@bigfoot.com> wrote:

> I had a problem with the 454's. Using all the supplied parts, the output
>was low and the current draw was high. This was solved by replacing the
>910pf cap between the collectors with a smaller value. I never tried it on
>an antenna then. One of the 454's died because the radio output was too
>high - my mistake. Once I get the amp working, is there a way to reduce the
>input to the amp? I've seen some designs with a simple voltge divider. Would
>that work OK?

Provided it doesn't introduce any unacceptable reactance, why not?
--

"What is now proved was once only imagin'd." - William Blake, 1793.

2322. Re: Is ours the most technical hobby in the world?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-07 23:39:59 UTC
From: rmonagha@engr.smu.edu
Message-ID: <chlgsf$24g$1@blaze.seas.smu.edu>
Source record: 23406

I suspect we old-timers are wrong in believing that more radios were designed or made in the past than today, probably by factors of 500% or more. The main reason is QRP radios using modern ICs for the receivers and MOSFET transmitters, coupled with a revival of nostalgia tube simple transmitters.

Our campus radio club W5YF is building several pixie-2 cw transceivers ($10 kits from HSC) as a project for newcomers. As part of an IEEE construction and kit building event tonight, they are offering free SWL radio kits, free robotic kits to students to encourage them to build electronics skills, learn to solder, etc. We are also building a cross band repeater (for ballooning), an emergency power system, a VLF beacon transmitter (of our own design), and various other antenna projects.

There are lots more people in amateur radio today than in the past too.

Many of the projects built in the past were slavish copies from articles in QST or the Handbooks (ARRL, RSGB..), since relatively few could design Pi networks etc. Today, software makes it easy to customize a design to parts available cheaply, making many designs "originals" ;-)

The cost of constructed electronics, esp. with SMC, has dropped (along with low cost labor etc.) such that kits like heathkit are more costly to build than to buy, due to need to write instructions manuals etc. ;-(

Lots more information is available online too, making it possible to do things with surplus "junque" that we couldn't before due to lack of specs or pinouts etc. Similarly, lots more projects are being built from online articles of other folks successful projects.

EBay has made huge amounts of surplus test equipment available, moving it from inactive users to those having a need for such items, and reducing the cost of electronics construction. At our local sidewalk sale last weekend (http://people.smu.edu/arc/sidewalk.html), I picked up a large working VTVM that also did RMS volts and resistance and even capacitance from pfs to 2,000 uF, as well as 4,000 volt scale volts - for $5, 8 digit counter and display with reset for $1, and a computer UPS with 12v SLA for $3. I can't build an SLA battery charger for that, or a capacitance meter, so one reason some folks aren't building is that buying used or online is much more cost effective, plus provides extra features (e.g., a VTVM+, a 300 watt sine wave inverter etc.).

One interesting argument put forth by Forest Mims III (pop tronics author, in Nuts and VOlts magazine recently) is that we are no longer component level builders, but rather system level designers. So I'm designing a cross band repeater with CW-IDer, beacon DF transmitter, and possibly ATV

transmitter for our club's 75th anniversary high altitude balloon project. The CW-IDER (from K1EL) is a single chip microcontroller which not only does the whole morse code ID message generation, including sidetones (for 7 messages ;-), but also does the 10 minute (0 to 600 second delay) timer for the repeater - for $8, preprogrammed, including mailing. What would have been a major project (CW-IDer for VLF beacon and balloon project) is now a single component and ten minute ordering form away. ;-) Sure, I could build one from an EPROM and logic and timers - but not for $8. Should I feel bad I'm not doing discrete logic work again, or be happy I can focus on creating other functionality in the system? Hmmm? ;-)

Similarly, many radios are rather complete today, unlike in the past. You needed to have an outboard audio filter with some rigs, today, DSPs are built in. You needed a VHF SWR meter, now some rigs have these built-in, along with lots of other functions. So the need to design and build has been decreased as the complexity of equipment has increased. The cost of a used 2m handheld radio (often $50 even for an older synthesized rig) is so low that you can hardly build such a complex item except to say you did so.

On the other hand, I think there is a lot more interest and construction where it does count, e.g., building antennas, as the rec.radio.antennas group suggests.

So I think we should be happy that modern technology has eliminated the need to build needed "accessories" to our main radios, which now include such needed features (and many others ;-). We also don't have to build from the ground up, since used gear offers a lower cost starting point to building a station. On the other hand, many ham stations today are much more complex than in the past. Most of us run HF and VHF/UHF, many do multiple modes, including digital modes, and work specialty areas (like ATV or satellites). Our focus is not on building a single radio transmitter, rather we are focusing on expanding our radio station capabilities in modes and bands and facilities (including emergency power..).

my $.02 ;-)

bobm

--
****
* Robert Monaghan POB 752182 Southern Methodist Univ. Dallas Tx 75275 *
**********Standard Disclaimers Apply**********

2323. Re: Focus on Tek 2236 Scope

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-07 23:41:49 UTC
From: Michael Melland <w9wis@charter.net>
Message-ID: <10jsaq3tajbq476@corp.supernews.com>
Source record: 23400

No problem Rex..... glad to have been able to help.

Mike

--
Michael Melland, W9WIS
Winneconne, WI USA
http://webpages.charter.net/w9wis

2324. Re: Is ours the most technical hobby in the world?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-07 23:56:17 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <aeisj09mbsk6sl4pnkooh9v5hbus7rfv75@4ax.com>
Source record: 23407

On 7 Sep 2004 18:39:59 -0500, rmonagha@engr.smu.edu (Bob Monaghan)
wrote:

[snip]
>So I think we should be happy that modern technology has eliminated the
>need to build needed "accessories" to our main radios, which now include
>such needed features (and many others ;-). We also don't have to build
>from the ground up, since used gear offers a lower cost starting point to
>building a station. On the other hand, many ham stations today are much
>more complex than in the past. Most of us run HF and VHF/UHF, many do
>multiple modes, including digital modes, and work specialty areas (like
>ATV or satellites). Our focus is not on building a single radio
>transmitter, rather we are focusing on expanding our radio station
>capabilities in modes and bands and facilities (including emergency
>power..).

I'm sure you're right. But AFAIC, I prefer doing things from the
ground up. That way, you learn a hell of a lot more. I'll stick with
my discretes and continue to make 'em work at RF., for all hassle,
they make life infuriating but *so* much more challenging. Perhaps I
should get a better psychiatrist. :-)
--

"What is now proved was once only imagin'd." - William Blake, 1793.

2325. Re: Illegal Porn

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-08 02:24:50 UTC
From: Steve <lafayetteradio4@optonline.net>
Message-ID: <413E6E65.A8ADE803@optonline.net>
Source record: 23408
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.packet,rec.radio.amateur.policy,rec.radio.amateur.space,rec.radio.amateur.swap
Body handling: HTML body converted to readable text

webtv'er wannabe?
Cable here!

Steveo wrote:

> Try editing, and lose the html, webtv'er wannabe.
>
> Steve wrote:
> > --------------273E0697325EB97188F66DD4
> > Content-Type: text/plain; charset=us-ascii
> > Content-Transfer-Encoding: 7bit
> >
> > Hey noodnick, if you looked at it you would have seen it has been
> > changed
> > so it won't connect to anything.
> > Maybe you should post warnings to the new internet users instead
> > of bitching about mine!
> >
> > Hey dumbass, stop re-posting the virus url with your
> > lameass warnings.
> >
> > Steveo wrote:
> >
> > > Steve wrote:
> > > > --------------3058374DB6CE5FF9AA76B153
> > > > Content-Type: text/plain; charset=us-ascii
> > > > Content-Transfer-Encoding: 7bit
> > > >
> > > > YET ANOTHER ATTEMPT TO CATCH A VIRUS FROM THIS A-HOLE
> > > >
> > > Hey dumbass, stop re-posting the virus url with your
> > > lameass warnings.
> > >
> > > I've just come across a site that was very disturbing while viewing
> > > with
> > > my family. This kind of pornography should have a warning.
> > > http://www.theparadise.x-y
> > >
> > > Oh, and lose the HTML in these text groups. -sheesh-
> >
> > --------------273E0697325EB97188F66DD4
> > Content-Type: text/html; charset=us-ascii

> > Content-Transfer-Encoding: 7bit
> >
> >
> >
> > Hey noodnick, if you looked at it you would have seen it has been changed
> >
so it won't connect to anything.
> >
Maybe you should post warnings to the new internet users instead
> >
of bitching about mine!
> >
Hey dumbass, stop re-posting the virus url with your
> >
lameass warnings.
> >

> >
Steveo wrote:
> >
Steve <lafayetteradio4@optonline.net> wrote:
> >
> --------------3058374DB6CE5FF9AA76B153
> >
> Content-Type: text/plain; charset=us-ascii
> >
> Content-Transfer-Encoding: 7bit
> >
>
> >
> YET ANOTHER ATTEMPT TO CATCH A VIRUS FROM THIS A-HOLE
> >
>
> >
Hey dumbass, stop re-posting the virus url with your
> >
lameass warnings.

> >
> >
I've just come across a site that was very
> > disturbing while viewing with
> >
my family. This kind of pornography should have a warning.
> >
> HREF="http://www.theparadise.x-y">http://www.theparadise.x-y
> >
Oh, and lose the HTML in these text groups. -sheesh-

> >
> >

> > --------------273E0697325EB97188F66DD4--

2326. Re: modify an AM tuner to go on 4mhz!!!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-08 03:45:07 UTC
From: fmmck@aol.com
Message-ID: <20040907234507.17479.00000444@mb-m05.aol.com>
Source record: 23409

<< In you opinion, can I push my AM tuner from its 500-1600 khz to 4000khz using some of the various mods presented in the previous post?
Or it's really too much? >>

Tony-

I didn't see your previous posts. Yes, you should be able to modify the tuner, but it means replacing the front-end tuned circuit as well as the local oscillator's tuned circuits.

Another approach is to add a converter stage between the 4000khz antenna and the antenna input connector of the tuner. Such a converter might have a 4000khz preamplifier stage, a converter stage and a local oscillator stage. If the local oscillator were crystal controlled, you might be able to tune the frequency on the AM dial, with frequency determined by adding a constant.

73, Fred, K4DII

2327. Re: Another hopeless text: spot the errors...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-08 04:20:13 UTC
From: Rich Grise <null@example.net>
Message-ID: <1Mv%c.6719$Q44.6604@trnddc09>
Source record: 23410
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design,alt.binaries.schematics.electronic

John Miles wrote:

> In article <chids2$k6q$1@newsg3.svr.pol.co.uk>,
> john@jjdesigns.fsnet.co.uk says...
>>
>> I've never come across his book but if it was me I'd have thrown the
>> bloody thing away years ago.
>> regards
>> john
>>
>>
>>
>
> Well, it does say, "If you are from some other university then confirm
> with your professors whether these formulae/methods are valid for your
> university."
>
I first read this as:
If you are from some other universe then confirm
with your professors whether these formulae/methods
are valid for your universe.

;-)

2328. Re: modify an AM tuner to go on 4mhz!!!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-08 05:55:06 UTC
From: Peter Parker <parkerp@NOSPAMalphalink.com.au>
Message-ID: <413e9d13@news.alphalink.com.au>
Source record: 23411

"Fred McKenzie" <fmmck@aol.com> wrote in message
news:20040907234507.17479.00000444@mb-m05.aol.com...

> Another approach is to add a converter stage between the 4000khz antenna
and
> the antenna input connector of the tuner. Such a converter might have a
> 4000khz preamplifier stage, a converter stage and a local oscillator
stage. If
> the local oscillator were crystal controlled, you might be able to tune
the
> frequency on the AM dial, with frequency determined by adding a constant.

This is the best approach. It's best to use an AM car radio that has analogue tuning for this sort of thing. A crystal for 5 MHz would be OK - 4 MHz would come up at 1000 kHz on the dial.

An excellent project is a converter using 4 & 5 MHz crystals and a tunable front end. This will give you a receiver that tunes continuously between 3.5 and 7.5 MHz in 4 bands. You will need a double tuned circuit at the front end to resonate over this range. Add a 455 kHz BFO for SSB.

73, Peter

2329. Re: Is ours the most technical hobby in the world?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-08 05:58:17 UTC
From: Peter Parker <parkerp@NOSPAMalphalink.com.au>
Message-ID: <413e9dd1$1@news.alphalink.com.au>
Source record: 23412

"Paul Burridge" <pb@notthisbit.osiris1.co.uk> wrote in message
news:53mrj0l5rjcq1n2s95gaqdnnd6grnnf120@4ax.com...
> Hi guys,
>
> Well do you think it is? I personally can't think of any other
> passtime accessible to the individual which requires such a high
> degree of technical knowledge to succeed at. If anyone can think of
> something more complex, let's hear it!

This is a pointless question.

Any hobby can be made as technical or non-technical as its adherant wants.
None is necessarily superior to any other if that's what you were getting
at.

And what is your definition of 'succeeding at'?

73, Peter VK3YE

2330. Re: modify an AM tuner to go on 4mhz!!!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-08 07:12:56 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <u3ctj09lsbdeeh1aknon7susn7nejiuqq0@4ax.com>
Source record: 23413

On Wed, 8 Sep 2004 00:36:01 +0200, "Tony"
<---NO_._SPAM---bincit[NO_-_SPAM]@cs.unibo.it> wrote:

>In you opinion, can I push my AM tuner from its 500-1600 khz to 4000khz
>using some of the various mods presented in the previous post?
>Or it's really too much?

What do you expect to hear with an AM tuner in say 3000-4000 kHz
range? There is very few AM transmissions.

In addition you would need a beat frequency oscillator, to make sense
of at least some of the transmissions.

Paul

2331. Re: Is ours the most technical hobby in the world?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-08 07:48:47 UTC
From: Paul Jordan <pauljordan@gci.net>
Message-ID: <10jteu7jf0b81ea@corp.supernews.com>
Source record: 23414

Now THIS is the kind of answer I like to see on questions like this.
VERY well put Bob, thanks for sharing.

Paul
kl0an

Bob Monaghan wrote:
> I suspect we old-timers are wrong in believing that more radios were
> designed or made in the past than today, probably by factors of 500% or
> more. The main reason is QRP radios using modern ICs for the receivers and
> MOSFET transmitters, coupled with a revival of nostalgia tube simple
> transmitters.
>
> Our campus radio club W5YF is building several pixie-2 cw transceivers
> ($10 kits from HSC) as a project for newcomers. As part of an IEEE
> construction and kit building event tonight, they are offering free SWL
> radio kits, free robotic kits to students to encourage them to build
> electronics skills, learn to solder, etc. We are also building a cross
> band repeater (for ballooning), an emergency power system, a VLF beacon
> transmitter (of our own design), and various other antenna projects.
>
> There are lots more people in amateur radio today than in the past too.
>
> Many of the projects built in the past were slavish copies from articles
> in QST or the Handbooks (ARRL, RSGB..), since relatively few could design
> Pi networks etc. Today, software makes it easy to customize a design to
> parts available cheaply, making many designs "originals" ;-)
>
> The cost of constructed electronics, esp. with SMC, has dropped (along
> with low cost labor etc.) such that kits like heathkit are more costly to
> build than to buy, due to need to write instructions manuals etc. ;-(
>
> Lots more information is available online too, making it possible to do
> things with surplus "junque" that we couldn't before due to lack of specs
> or pinouts etc. Similarly, lots more projects are being built from online
> articles of other folks successful projects.
>
> EBay has made huge amounts of surplus test equipment available, moving it
> from inactive users to those having a need for such items, and reducing
> the cost of electronics construction. At our local sidewalk sale last
> weekend (http://people.smu.edu/arc/sidewalk.html), I picked up a large
> working VTVM that also did RMS volts and resistance and even capacitance
> from pfs to 2,000 uF, as well as 4,000 volt scale volts - for $5, 8 digit
> counter and display with reset for $1, and a computer UPS with 12v SLA for
> $3. I can't build an SLA battery charger for that, or a capacitance meter,

> so one reason some folks aren't building is that buying used or online is
> much more cost effective, plus provides extra features (e.g., a VTVM+, a
> 300 watt sine wave inverter etc.).
>
> One interesting argument put forth by Forest Mims III (pop tronics author,
> in Nuts and VOlts magazine recently) is that we are no longer component
> level builders, but rather system level designers. So I'm designing a
> cross band repeater with CW-IDer, beacon DF transmitter, and possibly ATV
> transmitter for our club's 75th anniversary high altitude balloon project.
> The CW-IDER (from K1EL) is a single chip microcontroller which not only
> does the whole morse code ID message generation, including sidetones (for
> 7 messages ;-), but also does the 10 minute (0 to 600 second delay) timer
> for the repeater - for $8, preprogrammed, including mailing. What would
> have been a major project (CW-IDer for VLF beacon and balloon project) is
> now a single component and ten minute ordering form away. ;-) Sure, I
> could build one from an EPROM and logic and timers - but not for $8.
> Should I feel bad I'm not doing discrete logic work again, or be happy I
> can focus on creating other functionality in the system? Hmmm? ;-)
>
> Similarly, many radios are rather complete today, unlike in the past. You
> needed to have an outboard audio filter with some rigs, today, DSPs are
> built in. You needed a VHF SWR meter, now some rigs have these built-in,
> along with lots of other functions. So the need to design and build has
> been decreased as the complexity of equipment has increased. The cost of a
> used 2m handheld radio (often $50 even for an older synthesized rig) is so
> low that you can hardly build such a complex item except to say you did
> so.
>
> On the other hand, I think there is a lot more interest and construction
> where it does count, e.g., building antennas, as the rec.radio.antennas
> group suggests.
>
> So I think we should be happy that modern technology has eliminated the
> need to build needed "accessories" to our main radios, which now include
> such needed features (and many others ;-). We also don't have to build
> from the ground up, since used gear offers a lower cost starting point to
> building a station. On the other hand, many ham stations today are much
> more complex than in the past. Most of us run HF and VHF/UHF, many do
> multiple modes, including digital modes, and work specialty areas (like
> ATV or satellites). Our focus is not on building a single radio
> transmitter, rather we are focusing on expanding our radio station
> capabilities in modes and bands and facilities (including emergency
> power..).
>
> my $.02 ;-)
>
> bobm
>
>
>

>

2332. Re: Is ours the most technical hobby in the world?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-08 09:32:22 UTC
From: Highland Ham <abcgm0csz.kn6whxyz@abcntlworldxyz.com>
Message-ID: <GkA%c.30$E56.29@newsfe4-gui.ntli.net>
Source record: 23416

> Well do you think it is? I personally can't think of any other
> passtime accessible to the individual which requires such a high
> degree of technical knowledge to succeed at. If anyone can think of
> something more complex, let's hear it!
==========
What about completely homebrewing a telescope ?

Frank GM0CSZ / KN6WH

2333. Re: Another hopeless text: spot the errors...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-08 09:34:46 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <0fktj05q31vbg3dupg8p23ffk3i7un1vh1@4ax.com>
Source record: 23415

On Wed, 08 Sep 2004 04:20:13 GMT, Rich Grise <null@example.net> wrote:

>I first read this as:
> If you are from some other universe then confirm
> with your professors whether these formulae/methods
> are valid for your universe.

Indeed! I don't think western designers have much to fear (job
competition-wise) from graduates of Bombay University. :-)
--

"What is now proved was once only imagin'd." - William Blake, 1793.

2334. Re: Is ours the most technical hobby in the world?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-08 09:40:42 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <emktj01pr1o37906nhe58rl16udrldv2v3@4ax.com>
Source record: 23417

On Wed, 8 Sep 2004 15:58:17 +1000, "Peter Parker"
<parkerp@NOSPAMalphalink.com.au> wrote:

>This is a pointless question.

In that case, please accept my humble apologies for having the
audacity to ask it.

>Any hobby can be made as technical or non-technical as its adherant wants.
>None is necessarily superior to any other if that's what you were getting
>at.

Thanks. My views on flower-arranging have gone up stratospherically.

>And what is your definition of 'succeeding at'?

To be able to design and build a receiver, transmitter, amp; whatever
and get it working to expectations.
--

"What is now proved was once only imagin'd." - William Blake, 1793.

2335. Re: Is ours the most technical hobby in the world?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-08 12:43:11 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <levtj0h2o104vdi2q0mfb8nvilonnfc25c@4ax.com>
Source record: 23418

On Wed, 08 Sep 2004 09:32:22 GMT, "Highland Ham"
<abcgm0csz.kn6whxyz@abcntlworldxyz.com> wrote:

>==========
>What about completely homebrewing a telescope ?

Are you serious? We have kids in junior school who do that; grind and
polish their own mirrors - the whole process. Maybe not up to Zeiss
standards, but completely HB from start to finish nevertheless!
--

"What is now proved was once only imagin'd." - William Blake, 1793.

2336. Re: Is ours the most technical hobby in the world?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-08 12:50:33 UTC
From: wa8ulx@aol.com
Message-ID: <20040908085033.22406.00000378@mb-m01.aol.com>
Source record: 23419

>To be able to design and build a receiver, transmitter, amp; whatever
>and get it working to expectations.
>--

Well that will never happen with the New so called Hams, most have a hard time hooking Mike.

2337. Re: modify an AM tuner to go on 4mhz!!!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-08 13:17:00 UTC
From: Dale Parfitt <par@parelectronics.com>
Message-ID: <gDD%c.9679$fF2.7408@trnddc03>
Source record: 23420

"Paul Keinanen" <keinanen@sci.fi> wrote in message
news:u3ctj09lsbdeeh1aknon7susn7nejiuqq0@4ax.com...
> On Wed, 8 Sep 2004 00:36:01 +0200, "Tony"
> <---NO_._SPAM---bincit[NO_-_SPAM]@cs.unibo.it> wrote:
>
> >In you opinion, can I push my AM tuner from its 500-1600 khz to 4000khz
> >using some of the various mods presented in the previous post?
> >Or it's really too much?
>
> What do you expect to hear with an AM tuner in say 3000-4000 kHz
> range? There is very few AM transmissions.
>
> In addition you would need a beat frequency oscillator, to make sense
> of at least some of the transmissions.
>
> Paul
>
I too would encourage the converter approach.
As to what there is to hear- this is the tropical AM broadcast band and some
of the rarest catches are located here, although I think I would prefer a
radio with a bit more sophistication.

Dale W4OP

2338. Re: Is ours the most technical hobby in the world?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-08 14:12:44 UTC
From: microwaves@blueyonder.co.uk
Message-ID: <41401328.86808684@news.blueyonder.co.uk>
Source record: 23421

On 07 Sep 2004 16:21:33 GMT, wa8ulx@aol.com (WA8ULX) wrote:

>
>Basket Weaving 101, probably has more Technical knowlege then HAM RADIO has
>today.

So you are also doing 47GHz moonbounce then?

2339. Re: modify an AM tuner to go on 4mhz!!!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-08 15:33:15 UTC
From: fmmck@aol.com
Message-ID: <20040908113315.01575.00000549@mb-m28.aol.com>
Source record: 23422

<< A crystal for 5 MHz would be OK - 4
MHz would come up at 1000 kHz on the dial. >>

Peter-

With high-side injection wouldn't the dial tune backwards? 4000khz would appear at 1000khz, but 4500kHz would appear at 500khz on the dial.

If Tony can adjust to the backwards dial, I agree that a 5000khz converter crystal would be the better choice, since it might be easier to filter out images at 6000khz than images at 2000khz when using a 3000khz crystal.

73, Fred, K4DII

2340. Re: modify an AM tuner to go on 4mhz!!!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-08 17:11:54 UTC
From: Tony <---NO_._SPAM---bincit>
Message-ID: <chneer$h2g$1@le1.cs.unibo.it>
Source record: 23423

Now we must find a scheme for this...

--
--
I use PGP. Ask for my key if interested.
-

"Fred McKenzie" <fmmck@aol.com> ha scritto nel messaggio
news:20040908113315.01575.00000549@mb-m28.aol.com...
> << A crystal for 5 MHz would be OK - 4
> MHz would come up at 1000 kHz on the dial. >>
>
> Peter-
>
> With high-side injection wouldn't the dial tune backwards? 4000khz would
> appear at 1000khz, but 4500kHz would appear at 500khz on the dial.
>
> If Tony can adjust to the backwards dial, I agree that a 5000khz converter
> crystal would be the better choice, since it might be easier to filter out
> images at 6000khz than images at 2000khz when using a 3000khz crystal.
>
> 73, Fred, K4DII
>

2341. Re: Is ours the most technical hobby in the world?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-08 17:13:53 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2q8tgsFpmf3rU1@uni-berlin.de>
Source record: 23424

Not conclusive - golf is for the brain-dead, as are off-the-shelf
rigs.

"John Walton" <jdwalton@comcast.net> wrote in message
news:zfadnUd5v7D1l6PcRVn-vQ@comcast.com...
> Actually Mongolian culture is very advanced. You can even golf there.
> "Airy R. Bean" <me@privacy.net> wrote in message
> news:2q6an7Frtj6oU1@uni-berlin.de...
> > Sadly they are misled by the Mongolian hordes of
> > CBers-Masquerading-As-Radio-Hams who have corrupted
> > Ham Radio in recent years.

2342. Re: Is ours the most technical hobby in the world?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-08 17:23:48 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2q8u73Fs4v67U1@uni-berlin.de>
Source record: 23425

No, the question is not pointless. Ham Radio is a technical pursuit.

If it's not technical for you, then you may be an
unwitting CBer-Masquerading-As-A-Radio-Ham

"Peter Parker" <parkerp@NOSPAMalphalink.com.au> wrote in message
news:413e9dd1$1@news.alphalink.com.au...
> "Paul Burridge" <pb@notthisbit.osiris1.co.uk> wrote in message
> news:53mrj0l5rjcq1n2s95gaqdnnd6grnnf120@4ax.com...
> > Well do you think it is? I personally can't think of any other
> > passtime accessible to the individual which requires such a high
> > degree of technical knowledge to succeed at. If anyone can think of
> > something more complex, let's hear it!
> This is a pointless question.
> Any hobby can be made as technical or non-technical as its adherant wants.
> None is necessarily superior to any other if that's what you were getting
> at.

2343. Re: Is ours the most technical hobby in the world?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-08 20:19:26 UTC
From: et472@FreeNet.Carleton.CA
Message-ID: <chnpge$h87$1@freenet9.carleton.ca>
Source record: 23427

Bill Turner (noway@nohow.com) writes:
> On Tue, 07 Sep 2004 16:51:04 +0100, Paul Burridge
> <pb@notthisbit.osiris1.co.uk> wrote:
>
>>Well do you think it is? I personally can't think of any other
>>passtime accessible to the individual which requires such a high
>>degree of technical knowledge to succeed at. If anyone can think of
>>something more complex, let's hear it!
>
> ----------
>
> Homebuilt aircraft, especially if home designed.
>
>
> Bill W6WRT
>

There have always been technical hobbies, astronomy, amateur radio, rocketry, home machine shop, and even aircraft building. I'm not sure that it matters so much which is most technical, but I suspect many of those hobbies share the problems of amateur radio. We don't think of those other hobbies because they aren't all that visible beyond their circles, which of course is the case for amateur radio, likely even more so in the case fo ham radio as a technical hobby.

Michael VE2BVW

2344. Re: Is ours the most technical hobby in the world?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-08 20:20:47 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <naquj0tdg7a9nhkbojuoojs0cdrjs24hgf@4ax.com>
Source record: 23426

On Wed, 08 Sep 2004 09:00:48 -0700, Bill Turner <noway@nohow.com>
wrote:

>On Tue, 07 Sep 2004 16:51:04 +0100, Paul Burridge
><pb@notthisbit.osiris1.co.uk> wrote:
>
>>Well do you think it is? I personally can't think of any other
>>passtime accessible to the individual which requires such a high
>>degree of technical knowledge to succeed at. If anyone can think of
>>something more complex, let's hear it!
>
>____
>
>Homebuilt aircraft, especially if home designed.

No, that's just more _dangerous_. Unless you're into big toob linears,
of course. :-)
--

"What is now proved was once only imagin'd." - William Blake, 1793.

2345. Re: Is ours the most technical hobby in the world?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-08 20:45:34 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <ObK%c.17418$sF2.10839@newssvr27.news.prodigy.com>
Source record: 23428

Airy R. Bean wrote:
> No, the question is not pointless. Ham Radio is a technical pursuit.
>
> If it's not technical for you, then you may be an
> unwitting CBer-Masquerading-As-A-Radio-Ham

In addition to being a technical pursuit, Ham Radio also provides
some self-delusional people the opportunity to make precious
distinctions between themselves and others in order to provide
those self delusionists with a sense of smug superiority. It's just
another of the psychological benefits of participating in the hobby.
73,
Tom Donaly, KA6RUH

2346. Re: Is ours the most technical hobby in the world?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-08 21:23:37 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <tLK%c.79571$jZ5.71990@clgrps13>
Source record: 23430

Behold, Bob Monaghan signalled from keyed 4-1000A filament:

<snip>

> my $.02 ;-)
>
> bobm

Very well put Bob!

Ah, yes. Growing up to Forrest Mims books was the cat's meow of DIY of
the time :-)

--
Gregg t3h g33k
"Ratings are for transistors....tubes have guidelines"
http://geek.scorpiorising.ca

2347. Re: modify an AM tuner to go on 4mhz!!!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-08 21:40:17 UTC
From: Peter Parker <parkerp@NOSPAMalphalink.com.au>
Message-ID: <413f7a94$1@news.alphalink.com.au>
Source record: 23431

"Fred McKenzie" <fmmck@aol.com> wrote in message
news:20040908113315.01575.00000549@mb-m28.aol.com...
> << A crystal for 5 MHz would be OK - 4
> MHz would come up at 1000 kHz on the dial. >>
>
> Peter-
>
> With high-side injection wouldn't the dial tune backwards? 4000khz would
> appear at 1000khz, but 4500kHz would appear at 500khz on the dial.

Yes it would. But it's no great hardship and improves one's mental maths!

> If Tony can adjust to the backwards dial, I agree that a 5000khz converter
> crystal would be the better choice, since it might be easier to filter out
> images at 6000khz than images at 2000khz when using a 3000khz crystal.

Agreed. I have a h/b receiever that tunes 1.6 to 4.0 MHz as a tunable IF.
There are xtals every 2 MHz in its front end converter. Using a 2 MHz xtal
for the 4-6 MHz range hardly worked at all, and it was better to switch in
the 6 MHz xtal and accept backward tuning.

Another benefit is that 5 MHz xtals seem to be more obtainable than 3 MHz
xtals.

73, Peter VK3YE

>
> 73, Fred, K4DII
>

2348. Re: Is ours the most technical hobby in the world?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-08 23:07:36 UTC
From: Chris <REMOVEchris1379ME@bigfoot.com>
Message-ID: <YgM%c.10776$w%6.4374@newsread1.news.pas.earthlink.net>
Source record: 23432

There are some of us "CBer's" who enjoy the equipment as much as or more than the use of it. I definitely won't argue that CB radio is corrupt beyond salvaging. That's why many CBer's turn to ham. I have known many hams who dx on ham bands but use CB to talk to locals. That's how I learned alot of what I know and got interested in amateur radio. I don't have my license yet but I have the resources to study. I just hope that not too many CBer's who want to convert are met by hams who shun them. In one of my other hobbies, R/C aircraft, there are always people willing to spend their evenings and weekends teaching the newbies. The market there is also dominated by ready-made equipment now but if not for the dedicated builders who help others, no one would build there own anymore. One thing is common to both hobbies. The more you do it yourself, the more you learn. For now, it's back to studying.

Chris

"Airy R. Bean" <me@privacy.net> wrote in message
news:2q6an7Frtj6oU1@uni-berlin.de...
| Yes it is, but such a characteristic seems to be totally lost
| on most newcomers who are no better than CBers who buy
| their complete station off-the-shelf and even send it back to the
| dealer for repairs.
|
| Sadly they are misled by the Mongolian hordes of
| CBers-Masquerading-As-Radio-Hams who have corrupted
| Ham Radio in recent years. (And you don't have to have ever
| held a CB licence to qualify for membership of that class
| of failures - merely having a station of entirely off-the-shelf
| consumer-type purchases puts you fairly and squarely
| in that group!)
|
| "Paul Burridge" <pb@notthisbit.osiris1.co.uk> wrote in message
| news:53mrj0l5rjcq1n2s95gaqdnnd6grnnf120@4ax.com...
| > Well do you think it is? I personally can't think of any other
| > passtime accessible to the individual which requires such a high
| > degree of technical knowledge to succeed at. If anyone can think of
| > something more complex, let's hear it!
|
|

2349. ALC problems HF radios.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-09 00:23:38 UTC
From: ablight@alphalink.com.au
Message-ID: <1fc7b362.0409081623.4ccbf6f@posting.google.com>
Source record: 23433
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

Hi All,
I posted a query a few days ago re problems with no ALC on TX on 80m in 2 Yaesu radios - thanks to all who replied, while they were of limited use, it did get my brain thinking about the real peoblem The root cause has been found in one of them (A Yaesu FT707) and was caused by the "golden screwdriver" of a previous owner.

Setting up power output level as per the manual corrected the problem - when power output was taken back to 110 watts, the ALC started working!. The ALC did work on 40m and above, I suspect the sensitivity of the directional coupler used to monitor ALC was less at the lower frequency.

The mechanism is thus - power output is controlled by adjusting the level the ALC cuts in - if you crank it up to max power then the ALC amplifier cant generate enough voltage to limit transmitter drive - you wind up with lots more power out, but effectively no protection of the output transistors - the alc circuit also controls the thermal operation point of the cooling fan, and also provides high VSWR protection.

The moral of this story - a fault aint necessarily complex, just stupid!.

Hope this helps sme other people. Still have the FT747 to look at, but suspect the same sort of problem - complicated by not having a service manual for this one, so will have to poke around till I find the relevant adjustment points.

73 de VK3BFA Andrew

2350. Re: Another hopeless text: spot the errors...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-09 00:27:28 UTC
From: Tim Williams <tmoranwms@charter.net>
Message-ID: <10jv8qnfd90ko43@corp.supernews.com>
Source record: 23434
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design,alt.binaries.schematics.electronic

"Michael A. Covington" <look@ai.uga.edu.for.address> wrote in message
news:413cca36$1@mustang.speedfactory.net...
> > Well, it does say, "If you are from some other university then confirm
> > with your professors whether these formulae/methods are valid for your
> > university."
>
> So are the laws of physics different elsewhere?

PI IS EXACTLY THREE!!!!!!!!!!!!!

2351. Re: Is ours the most technical hobby in the world?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-09 01:14:22 UTC
From: rmonagha@engr.smu.edu
Message-ID: <choape$1s3$1@blaze.seas.smu.edu>
Source record: 23435

actually, I would suggest that ham radio is the MOST visible technical hobby, esp. lately, at least here in the USA. The recent spate of hurricanes in florida has highlighted the role of amateur radio during such communications down events. The Sept. 11th (9/11) terrorist attack video programs are playing now on PBS, and the crucial role of amateur radio during the loss of communications seems to get cited a lot too. The recent video on the web (cited in radionews latest issue IIRC) is another example drawing amateur radio to the attention of millions.

Amateur radio's profile on our campus took a big jump after 9/11 too, as we are now increasingly an integral part of our new campus emergency communications program, with a new emergency powered UHF repeater project underway as I write this for this semester.

Now astronomy, for that we head out to dark skies as far away from other people and lights as possible - now that's a nearly invisible technical hobby ;-) Only a relative handful of people build their own planes, vs. 650,000 hams in the USA alone. About the closest group to beating us in public visibility is probably those guys and gals with the battling robots with buzz saws on PBS robot wars, right? ;-) ;-)

grins bobm
--
****
* Robert Monaghan POB 752182 Southern Methodist Univ. Dallas Tx 75275 *
**********Standard Disclaimers Apply**********

2352. Re: modify an AM tuner to go on 4mhz!!!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-09 02:13:14 UTC
From: rmonagha@engr.smu.edu
Message-ID: <choe7q$8q6$1@blaze.seas.smu.edu>
Source record: 23436

see http://www.dxing.com/tuning.htm for what is on various SWL freq.
segments and bands, including the 3-4 Mhz segment...

I just gave a talk on SWLing as an entry to amateur radio for our club:
see http://people.smu.edu/arc/swlfun.doc for handout
see http://people.smu.edu/arc/swlfun.ppt for talk powerpoint slides
*see http://people.smu.edu/arc/shortwave.html SWL radios for future hams

depending on your goals, you may find the comparison(*) of $50 spent on a
kit shortwave radio (ramsey SR-1 2 Mhz AM only kit) vs. degen 1103 digital
dial 0.1-30Mhz AM/SSB/CW radio interesting, esp. if $$ and performance are
important, and your major interest is not homebrewing but SWL listening?

That said, the first thing I ordered after getting the above radio was the
$10 converter kit from Jackson Harbor Press kits for an ELF/VLF (10-300
Khz) including 10 Mhz crystal (For marker, timebase..) to compliment a
VLF beacon transmitter we are designing and building ;-)

hth bobm
--
****
* Robert Monaghan POB 752182 Southern Methodist Univ. Dallas Tx 75275 *
**********Standard Disclaimers Apply**********

2353. Re: Is ours the most technical hobby in the world?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-09 04:13:30 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2qa3ulFt8r17U1@uni-berlin.de>
Source record: 23437

I think that you are confusing my wish to preserve Ham
Radio as a technical pursuit with your own mental processes
which you project so well below.

Perhaps it is that you are an unwitting CBer-Masquerading-
As-A-Radio-Ham who is annoyed at being "outed" and which
annoyance results in you revealing the innermost workings
of your psyche as below?

It is a very exciting and inspiring thing to continue to
educate yourself in all matters of technology - try it and
you'll find that there is more to Ham Radio than your
own CBisation of it!

"Tom Donaly" <dtdonaly@sbcglobal.net> wrote in message
news:ObK%c.17418$sF2.10839@newssvr27.news.prodigy.com...
> Airy R. Bean wrote:
> > No, the question is not pointless. Ham Radio is a technical pursuit.
> > If it's not technical for you, then you may be an
> > unwitting CBer-Masquerading-As-A-Radio-Ham
> In addition to being a technical pursuit, Ham Radio also provides
> some self-delusional people the opportunity to make precious
> distinctions between themselves and others in order to provide
> those self delusionists with a sense of smug superiority. It's just
> another of the psychological benefits of participating in the hobby.

2354. Re: Is ours the most technical hobby in the world?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-09 04:16:52 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2qa3ulFt8r17U2@uni-berlin.de>
Source record: 23438

I shun CBers who wish to remain as CBers.

They are the death of Ham Radio (A good example
of which is the gangrenous degeneration that is the
M3/CB Fools' Licence scheme in Britland)

I encourage all comers who wish to develop their
technical skills and become _REAL_ Radio Hams.

"Chris" <REMOVEchris1379ME@bigfoot.com> wrote in message
news:YgM%c.10776$w%6.4374@newsread1.news.pas.earthlink.net...
> There are some of us "CBer's" who enjoy the equipment as much as or more
> than the use of it. ..... I just hope that not too many CBer's who want
> to convert are met by hams who shun them.
> "Airy R. Bean" <me@privacy.net> wrote in message
> news:2q6an7Frtj6oU1@uni-berlin.de...
> | Yes it is, but such a characteristic seems to be totally lost
> | on most newcomers who are no better than CBers who buy
> | their complete station off-the-shelf and even send it back to the
> | dealer for repairs.
> | Sadly they are misled by the Mongolian hordes of
> | CBers-Masquerading-As-Radio-Hams who have corrupted
> | Ham Radio in recent years. (And you don't have to have ever
> | held a CB licence to qualify for membership of that class
> | of failures - merely having a station of entirely off-the-shelf
> | consumer-type purchases puts you fairly and squarely
> | in that group!)

2355. Re: ALC problems HF radios.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-09 07:42:55 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <3QT%c.113492$A8.27988@edtnps89>
Source record: 23439
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

Behold, Andrew VK3BFA signalled from keyed 4-1000A filament:

> ....was caused by the
> "golden screwdriver" of a previous owner.

That reminds me of of repairing CB's in their hayday - 90% of what come
through the shop were victims of that.

Glad you got it ironed out :-)

--
Gregg t3h g33k
"Ratings are for transistors....tubes have guidelines"
http://geek.scorpiorising.ca

2356. Re: Another hopeless text: spot the errors...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-09 10:11:16 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <00b0k01aa254j191nrfdek04af1qeasp2k@4ax.com>
Source record: 23440
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design,alt.binaries.schematics.electronic

On Mon, 6 Sep 2004 16:30:22 -0400, "Michael A. Covington"
<look@ai.uga.edu.for.address> wrote:

>
>"John Miles" <jmiles@pop.removethistomailme.net> wrote in message
>news:MPG.1ba662163b361e1989717@news-central.giganews.com...
>
>> Well, it does say, "If you are from some other university then confirm
>> with your professors whether these formulae/methods are valid for your
>> university."
>
>So are the laws of physics different elsewhere?

It appears so. Everywhere outside of Bombay, I guess.

--

"What is now proved was once only imagin'd." - William Blake, 1793.

2357. Re: Another hopeless text: spot the errors...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-09 10:53:16 UTC
From: John Woodgate <jmw@jmwa.demon.contraspam.yuk>
Message-ID: <dQiSSPEcYDQBFwNW@jmwa.demon.co.uk>
Source record: 23441
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design,alt.binaries.schematics.electronic

I read in sci.electronics.design that Tim Williams
<tmoranwms@charter.net> wrote (in <10jv8qnfd90ko43@corp.supernews.com>)
about 'Another hopeless text: spot the errors...', on Wed, 8 Sep 2004:
>"Michael A. Covington" <look@ai.uga.edu.for.address> wrote in message
>news:413cca36$1@mustang.speedfactory.net...
>> > Well, it does say, "If you are from some other university then confirm
>> > with your professors whether these formulae/methods are valid for your
>> > university."
>>
>> So are the laws of physics different elsewhere?
>
>PI IS EXACTLY THREE!!!!!!!!!!!!!
>
>
You live in a uniformly convex Universe (think about it). What stops
everything sliding down the slopes? Oh, I suppose gravity has a
tangential component. There is still a paradox; to obtain convexity, all
masses must be negative. So the normal component of gravity should be
repulsive. Maybe everything is ferromagnetic to compensate?
--
Regards, John Woodgate, OOO - Own Opinions Only.
The good news is that nothing is compulsory.
The bad news is that everything is prohibited.
http://www.jmwa.demon.co.uk Also see http://www.isce.org.uk

2358. Re: Is ours the most technical hobby in the world?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-09 11:42:56 UTC
From: troglodite@aol.com
Message-ID: <20040909074256.09094.00000402@mb-m21.aol.com>
Source record: 23442

>About the closest group to beating us in
>public visibility is probably those guys and gals with the battling robots
>with buzz saws on PBS robot wars, right? ;-) ;-)

But technically, those machines are NOT robots. If they were true robots, they would devise their own strategy. They are simply radio controlled devices.

2359. Re: Is ours the most technical hobby in the world?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-09 13:17:24 UTC
From: jeff <jeff@nospam.com>
Message-ID: <414057E2.319322B4@nospam.com>
Source record: 23443

Yes Chris, you're correct, similar situation for myself and some of the kids on the block years ago.

Just show up at the 'airstrip' and one of the old timers would be more then happy to take up your new plane for the maiden voyage, give it a going over and then hand the r/c box over to you and let you learn by doing. Soon we all were flying on our own and teaching the new kids.

Our neighbor was retired engineer with Grumman, noticed we had in interest in model rockets and r/c planes, he could not build himself anymore due to arthritis
but he taught all of us everything he could in the short time he had left.

That was a long time ago but all of us young pups ended up working for Boeing and Northrup. Otherwise we would have ended up in trouble !

jeff

Chris wrote:

> There are some of us "CBer's" who enjoy the equipment as much as or more
> than the use of it. I definitely won't argue that CB radio is corrupt beyond
> salvaging. That's why many CBer's turn to ham. I have known many hams who dx
> on ham bands but use CB to talk to locals. That's how I learned alot of what
> I know and got interested in amateur radio. I don't have my license yet but
> I have the resources to study. I just hope that not too many CBer's who want
> to convert are met by hams who shun them. In one of my other hobbies, R/C
> aircraft, there are always people willing to spend their evenings and
> weekends teaching the newbies. The market there is also dominated by
> ready-made equipment now but if not for the dedicated builders who help
> others, no one would build there own anymore. One thing is common to both
> hobbies. The more you do it yourself, the more you learn. For now, it's back
> to studying.
>
> Chris
>
> "Airy R. Bean" <me@privacy.net> wrote in message
> news:2q6an7Frtj6oU1@uni-berlin.de...
> | Yes it is, but such a characteristic seems to be totally lost
> | on most newcomers who are no better than CBers who buy
> | their complete station off-the-shelf and even send it back to the
> | dealer for repairs.
> |
> | Sadly they are misled by the Mongolian hordes of
> | CBers-Masquerading-As-Radio-Hams who have corrupted
> | Ham Radio in recent years. (And you don't have to have ever

> | held a CB licence to qualify for membership of that class
> | of failures - merely having a station of entirely off-the-shelf
> | consumer-type purchases puts you fairly and squarely
> | in that group!)
> |
> | "Paul Burridge" <pb@notthisbit.osiris1.co.uk> wrote in message
> | news:53mrj0l5rjcq1n2s95gaqdnnd6grnnf120@4ax.com...
> | > Well do you think it is? I personally can't think of any other
> | > passtime accessible to the individual which requires such a high
> | > degree of technical knowledge to succeed at. If anyone can think of
> | > something more complex, let's hear it!
> |
> |

2360. Re: Is ours the most technical hobby in the world?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-09 13:24:19 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <09m0k018trmfu0i73ugjggqaq4p0u7cg8s@4ax.com>
Source record: 23444

On 09 Sep 2004 11:42:56 GMT, troglodite@aol.com (Troglodite) wrote:

>>About the closest group to beating us in
>>public visibility is probably those guys and gals with the battling robots
>>with buzz saws on PBS robot wars, right? ;-) ;-)
>
>But technically, those machines are NOT robots. If they were true robots, they
>would devise their own strategy. They are simply radio controlled devices.

Yes, as yet. But given time, no doubt there'll be a category for
autonymous fighting robots. A few of us have attempted it, but only
scratched the surface of the possibilities.

--

"What is now proved was once only imagin'd." - William Blake, 1793.

2361. Re: Is ours the most technical hobby in the world?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-09 16:10:40 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <4g%%c.17658$q43.9013@newssvr27.news.prodigy.com>
Source record: 23445

Airy R. Bean wrote:
> I think that you are confusing my wish to preserve Ham
> Radio as a technical pursuit with your own mental processes
> which you project so well below.
>
> Perhaps it is that you are an unwitting CBer-Masquerading-
> As-A-Radio-Ham who is annoyed at being "outed" and which
> annoyance results in you revealing the innermost workings
> of your psyche as below?
>
> It is a very exciting and inspiring thing to continue to
> educate yourself in all matters of technology - try it and
> you'll find that there is more to Ham Radio than your
> own CBisation of it!
>
> "Tom Donaly" <dtdonaly@sbcglobal.net> wrote in message
> news:ObK%c.17418$sF2.10839@newssvr27.news.prodigy.com...
>
>>Airy R. Bean wrote:
>>
>>>No, the question is not pointless. Ham Radio is a technical pursuit.
>>>If it's not technical for you, then you may be an
>>>unwitting CBer-Masquerading-As-A-Radio-Ham
>>
>> In addition to being a technical pursuit, Ham Radio also provides
>>some self-delusional people the opportunity to make precious
>>distinctions between themselves and others in order to provide
>>those self delusionists with a sense of smug superiority. It's just
>>another of the psychological benefits of participating in the hobby.
>
>
>

If you're trying to "preserve Ham Radio as a technical pursuit,"
you won't do it by belittling other's contributions to the hobby.
You will however reinforce other's belief that you're just another
grouchy, old, British crackpot who is constantly getting exercised
over what other people consider trivial matters. On the antenna
newsgroup, there's another Briton like yourself who thinks it's of
the utmost importance that hams change the name of their SWR meters
to "transmitter loading indicators." I expect some day to hear of
some Englishman who wants to change the name "spoon" to "pie-hole
insertion device."
73,

Tom Donaly, KA6RUH

2362. Re: Good Cheap Soldering Iron

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-09 16:53:07 UTC
From: "Gary S." <Idontwantspam@net>
Message-ID: <2721k05gmm67prqtncvh4bqac1o90nhjhd@4ax.com>
Source record: 23446
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Sat, 04 Sep 2004 03:34:01 GMT, "Harry Dellamano"
<harryd@tdsystems.org> wrote:

>"Tim Wescott" <tim@wescottnospamdesign.com> wrote in message
>news:10ji4oqgs9scgb2@corp.supernews.com...
>> >>
>> >>Lucky you. PDX has a Fry's and a little local outfit, but that doesn't
>> >>count for real parts. I used to live in the Boston area, 30 minutes
>> >>away from an Active store -- that was nice, particularly since it backed
>> >>up against Future (same company) & you could get non-catalog items at
>> >>the counter if you really needed them.
>> >
>> >
>> > When I lived in the Boston area Radio Shack was a real parts warehouse
>> > (on Commonwealth Avenue) with a will-call counter (only 45 years ago
>> > ;-)
>> >
>> > ...Jim Thompson
>>
>> That was probably before they got bought by Tandy.
>>
>> Tim Wescott
>
> When I lived in the Boston area, I would drive by Radio Shack on the way to
>Scully Square and the real good parts.
>Cheers,
> Harry

Scollay Square was a little before my time.

Of historical note, the Sears Crescent Building there, still standing,
was where A G Bell and Watson worked on inventing the telephone.

Greater Boston still has You-Blew-It Electronics in Needham. (Actually
You-Do-It). A few other suppliers, but not like when this was a center
of manufacturing.

Happy trails,
Gary (net.yogi.bear)
---
at the 51st percentile of ursine intelligence

Gary D. Schwartz, Needham, MA, USA
Please reply to: garyDOTschwartzATpoboxDOTcom

2363. Re: Another hopeless text: spot the errors...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-09 17:09:16 UTC
From: "Gary S." <Idontwantspam@net>
Message-ID: <re31k0hh83h53uusar3p4i1lb7kkcosol7@4ax.com>
Source record: 23447
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design,alt.binaries.schematics.electronic

On Wed, 8 Sep 2004 19:27:28 -0500, "Tim Williams"
<tmoranwms@charter.net> wrote:

>"Michael A. Covington" <look@ai.uga.edu.for.address> wrote in message
>news:413cca36$1@mustang.speedfactory.net...
>> > Well, it does say, "If you are from some other university then confirm
>> > with your professors whether these formulae/methods are valid for your
>> > university."
>>
>> So are the laws of physics different elsewhere?
>
>PI IS EXACTLY THREE!!!!!!!!!!!!!
>
That was just in the state of Tennessee (or maybe Kentucky). Don't
think it actually passed.

But it illustrates the wisdom of having legislators make decisions
about science.

Happy trails,
Gary (net.yogi.bear)
---
at the 51st percentile of ursine intelligence

Gary D. Schwartz, Needham, MA, USA
Please reply to: garyDOTschwartzATpoboxDOTcom

2364. Re: Is ours the most technical hobby in the world?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-09 17:17:19 UTC
From: Gary Cavie <m0jjh@despammed.com>
Message-ID: <MPG.1baaa07b50123af2989682@news.individual.net>
Source record: 23348

In article <2qa3ulFt8r17U2@uni-berlin.de>, me@privacy.net says...
> I shun CBers who wish to remain as CBers.
>
> They are the death of Ham Radio (A good example
> of which is the gangrenous degeneration that is the
> M3/CB Fools' Licence scheme in Britland)
>
> I encourage all comers who wish to develop their
> technical skills and become _REAL_ Radio Hams.
>

Does this also include your fellow Land Rover drivers, with whom you chat on the CB?

Or the M3 friend of yours, whom you are instructing in the fine art of ballsing up an aerial?

2365. Re: Is ours the most technical hobby in the world?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-09 18:28:10 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2qbm38FtojpsU1@uni-berlin.de>
Source record: 23349

I haven't belittled anybody's contribution to anything.

Ham Radio is a technical pursuit.

CB Radio is a hobby.

CBers and CBers-Masquerading-As-Radio-Hams contribute
to the hobby of CB and not to the technical pursuit that is Ham Radio.

Those who are not technically motivated nor technically qualified
are unsuitable as Ham Radio licensees.

"Tom Donaly" <dtdonaly@sbcglobal.net> wrote in message
news:4g%%c.17658$q43.9013@newssvr27.news.prodigy.com...
> Airy R. Bean wrote:
> > I think that you are confusing my wish to preserve Ham
> > Radio as a technical pursuit with your own mental processes
> > which you project so well below.
> > Perhaps it is that you are an unwitting CBer-Masquerading-
> > As-A-Radio-Ham who is annoyed at being "outed" and which
> > annoyance results in you revealing the innermost workings
> > of your psyche as below?
> > It is a very exciting and inspiring thing to continue to
> > educate yourself in all matters of technology - try it and
> > you'll find that there is more to Ham Radio than your
> > own CBisation of it!
> >
> > "Tom Donaly" <dtdonaly@sbcglobal.net> wrote in message
> > news:ObK%c.17418$sF2.10839@newssvr27.news.prodigy.com...
> If you're trying to "preserve Ham Radio as a technical pursuit,"
> you won't do it by belittling other's contributions to the hobby.

2366. Re: Is ours the most technical hobby in the world?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-09 18:30:54 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2qbm39FtojpsU2@uni-berlin.de>
Source record: 23350

Your resorting to rather silly and childish broadcasting (CB)
in your infantile outbursts below would seem to confirm that
you are a CBer.

Ham Radio has traditions of international gentlemanly conduct
which seem to be lost on you.

Sic transit gloria Mundi.

This is a "homebrew" NG for _REAL_ Radio Hams. I fear that
you and your rants are somewhat out of place herein.

"Tom Donaly" <dtdonaly@sbcglobal.net> wrote in message
news:4g%%c.17658$q43.9013@newssvr27.news.prodigy.com...
> You will however reinforce other's belief that you're just another
> grouchy, old, British crackpot who is constantly getting exercised
> over what other people consider trivial matters.

2367. Re: Amplifier Oscillation

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-09 19:35:14 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <chqbeb$fq6$1@newshost.mot.com>
Source record: 23353

"Fred McKenzie" <fmmck@aol.com> wrote in message
news:20040907120637.11452.00003108@mb-m23.aol.com...
> ...
> I agree with Allison that you should look at the power bus. You often
find
> designs with two or three parallel filter capacitors with values spread
over
> the range of 100 pf to 10 uf, all with shortest possible leads including
PCB
> tracks.

This can be an issue as well. When a cap is above its parallel resonant freq., it looks inductive and can resonate with one of the other caps. A parallel resonance has a higher impedance than the cap. While this resonance may be of poor quality, the extremely low impedance of the transistor collector makes an ohm or two rather significant. Our standard practice was to place a small bead between the caps. They were about 1/8 inch in dia and had about 50 ohms real Z above a few Mhz. This helped to destroy any higher freq resonances while preserving the low freq impedance of the parallel caps.

In earlier days, on VHF, we would sometimes put a "banana" from base to collector. This was our slang for a series orange drop (I think mylar) cap and two (one on each end) low valued resistors. Don't remember all the values, but the idea was to kill the low freq gain. The cap blocked the collector voltage and had enough inductance and in combo with the two (I think 33 ohm) resistors was high relative to the base and collector impedances. I think the cap may have been .01, but memory faded... The low freq collector load in this situation is the supply bypass method...or the power supply leads, in lew thereof....

Heck. I remember running a Development Engineernig prototype 100W Micor on 30 Mhz for many months, wondering why I seemed to have battery problems, when I found large (size -wattage) and quite low valued resistors directly from base to collector of the finals (which were always tied to the battery). Guess someone was trying a flight fix and didn't think any DC blocking was necessary! Transmitter worked fine. I just had a high static drain.

--
Steve N, K,9;d, c. i My email has no u's.

2368. Tayloe detector and undersampling

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-09 20:00:52 UTC
From: Hern&#65533;n S&#65533;nchez <hernan.sanchez@iname.com>
Message-ID: <2qbr3gFu5bpuU1@uni-berlin.de>
Source record: 23351

Hi.

Does Tayloe detector work for undersampling of IF signals ? I have a signal of 45Mhz that I want to "translate" to baseband, sample it and take I and Q for processing.

Thanks

Hern&#65533;n S&#65533;nchez

2369. Re: Is ours the most technical hobby in the world?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-09 20:04:47 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <zH20d.17715$eF4.16552@newssvr27.news.prodigy.com>
Source record: 23352

Airy R. Bean wrote:
> Your resorting to rather silly and childish broadcasting (CB)
> in your infantile outbursts below would seem to confirm that
> you are a CBer.
>
> Ham Radio has traditions of international gentlemanly conduct
> which seem to be lost on you
>
> Sic transit gloria Mundi.
>
> This is a "homebrew" NG for _REAL_ Radio Hams. I fear that
> you and your rants are somewhat out of place herein.
>
> "Tom Donaly" <dtdonaly@sbcglobal.net> wrote in message
> news:4g%%c.17658$q43.9013@newssvr27.news.prodigy.com...
>
>>You will however reinforce other's belief that you're just another
>>grouchy, old, British crackpot who is constantly getting exercised
>>over what other people consider trivial matters.
>
>
>

Well, I'm glad to hear that you're a real Smithfield, Airy, and can look down on those of us non-technicians who don't share your narrow view of Ham Radio. Every hobby needs its share of tin-pot deities to provide comic relief to its other practitioners. Carry on, m'boy.
73,
Tom Donaly, KA6RUH

2370. Re: Another hopeless text: spot the errors...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-09 20:09:55 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <nM20d.13680$QJ3.5273@newssvr21.news.prodigy.com>
Source record: 23354
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design,alt.binaries.schematics.electronic

Gary S. wrote:

> On Wed, 8 Sep 2004 19:27:28 -0500, "Tim Williams"
> <tmoranwms@charter.net> wrote:
>
>
>>"Michael A. Covington" <look@ai.uga.edu.for.address> wrote in message
>>news:413cca36$1@mustang.speedfactory.net...
>>
>>>>Well, it does say, "If you are from some other university then confirm
>>>>with your professors whether these formulae/methods are valid for your
>>>>university."
>>>
>>>So are the laws of physics different elsewhere?
>>
>>PI IS EXACTLY THREE!!!!!!!!!!!!!
>>
>
> That was just in the state of Tennessee (or maybe Kentucky). Don't
> think it actually passed.
>
> But it illustrates the wisdom of having legislators make decisions
> about science.
>
> Happy trails,
> Gary (net.yogi.bear)
> --
> at the 51st percentile of ursine intelligence
>
> Gary D. Schwartz, Needham, MA, USA
> Please reply to: garyDOTschwartzATpoboxDOTcom

They (the politicians) were relying on that vast storehouse of
scientific information, the
Bible, for their instruction.
73,
Tom Donaly, KA6RUH

2371. Re: Tayloe detector and undersampling

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-09 20:21:39 UTC
From: R J Carpenter <rcarpen@erols.com>
Message-ID: <4140c943$0$6910$61fed72c@news.rcn.com>
Source record: 23357

"Hern&#65533;n S&#65533;nchez" <hernan.sanchez@iname.com> wrote in message
news:2qbr3gFu5bpuU1@uni-berlin.de...
> Hi.
>
> Does Tayloe detector work for undersampling of IF signals ? I have a
signal
> of 45Mhz that I want to "translate" to baseband, sample it and take I and
Q
> for processing.

IIRC, Bob McGwier n4ny@amsat.org has done this for the 144 MHz band. This was as part of a Gerald Youngblood software defined radio. Bob said that (of course) losses were greater.

2372. Re: Another hopeless text: spot the errors...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-09 20:38:51 UTC
From: "Gary S." <Idontwantspam@net>
Message-ID: <lmf1k0pidf81kudgml9lg5lqprioi80g66@4ax.com>
Source record: 23355
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design,alt.binaries.schematics.electronic

On Thu, 09 Sep 2004 20:09:55 GMT, "Tom Donaly"
<dtdonaly@sbcglobal.net> wrote:

>Gary S. wrote:
>
>> On Wed, 8 Sep 2004 19:27:28 -0500, "Tim Williams"
>> <tmoranwms@charter.net> wrote:
>>
>>>PI IS EXACTLY THREE!!!!!!!!!!!!!
>>>
>> That was just in the state of Tennessee (or maybe Kentucky). Don't
>> think it actually passed.
>>
>> But it illustrates the wisdom of having legislators make decisions
>> about science.
>>
>> Happy trails,
>> Gary (net.yogi.bear)
>
>They (the politicians) were relying on that vast storehouse of
>scientific information, the
>Bible, for their instruction.
>73,
>Tom Donaly, KA6RUH

I missed that part. Guess it would be in the Book of Numbers.

On the other hand, I do not know of anyone who searches for religious
instruction in a calculus textbook.

Happy trails,
Gary (net.yogi.bear)
---
at the 51st percentile of ursine intelligence

Gary D. Schwartz, Needham, MA, USA
Please reply to: garyDOTschwartzATpoboxDOTcom

2373. Re: Is ours the most technical hobby in the world?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-09 20:59:19 UTC
From: Highland Ham <abcgm0csz.kn6whxyz@abcntlworldxyz.com>
Message-ID: <Hu30d.131$Mm5.29@newsfe5-gui.ntli.net>
Source record: 23356

>snip
> Only a relative handful of people build their own planes, vs.
> 650,000 hams in the USA alone. About the closest group to beating us in
> public visibility is probably those guys and gals with the battling robots
> with buzz saws on PBS robot wars, right? ;-) ;-)
==========
How many of the above 650,000 hams have really built something in connection
with amateur radio ?

Frank GM0CSZ / KN6WH

2374. More Parts for sale

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-09 22:05:35 UTC
From: Brian - KB9BVN <kb9bvn@arrl.net>
Message-ID: <Ps40d.14823$Vl5.10826@newsread2.news.atl.earthlink.net>
Source record: 23358

I have some more surplus stuff.

50 pcs 2N2907 PNP transistors (TO92 Plastics)
General Purpose Amplifier/Switch require collector currents up to 500mA
Hfe Max is 300 - I think these were made to compliment the NPN 2N2222
but I am not sure.

These differ from the 2N3906 in that they have a higher current rating for
continuous collector current. The 2N3906 is maxed at 200mA and this
2N2907 is maxed at 800mA.

Other than that, they appear to be the same. The 2N2907 looks like it
is just a smidge tougher on the current handling abilities.

50 pcs 1N4007 General Purpose Rectifier (1000V 1A) 1V FWD DROP at 1A

Total of 100 pcs for $5.00 and 2 stamps. No Paypal this time.

Please include a shipping label.

Send your order to:

Brian Murrey - KB9BVN
47 Grassy Drive
New Whiteland IN 46184

73 de KB9BVN

2375. Re: Another hopeless text: spot the errors...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-09 22:29:58 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10k1mbapebpff76@corp.supernews.com>
Source record: 23359
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design,alt.binaries.schematics.electronic

Gary S. wrote:
> On Thu, 09 Sep 2004 20:09:55 GMT, "Tom Donaly"
> <dtdonaly@sbcglobal.net> wrote:
>>
>>They (the politicians) were relying on that vast storehouse of
>>scientific information, the
>>Bible, for their instruction.
>>73,
>>Tom Donaly, KA6RUH
>
>
> I missed that part. Guess it would be in the Book of Numbers.
> . . .

Actually, it's in I Kings vii.23 and II Chronicles iv.2:

"Also, he made a molten sea of ten cubits from brim to brim, round in compass, and five cubits the height thereof; and a line of thirty cubits did compass it round about."

In _A History of Pi_ by Petr Beckmann, the author states (p. 174) that "There is a story about some American legislature having considered a bill to legislate, for religious reasons, the biblical value of pi = 3. I have found no confirmation of this story; very probably it grew out of an episode that actually took place in the State Legislature of Indiana in 1897." He describes the incident. . .

A bill was introduced in the Indiana House in 1897 which said in the preamble:

"A bill for an act introducing a new mathematical truth and offered as a contribution to education to be used only by the State of Indiana free of cost by paying any royalties whatever on the same, provided it is accepted and adopted by the official action of the legislature in 1897."

In Section 1, the value of pi is effectively declared to be about 9.2. In Section 2, it's said to be exactly 3.2. The bill was referred ["perhaps symbolically", muses Beckmann] to the House Committee on Swamp Lands, which passed it to the Committee of Education, which reported it back to the House "with recommendation that said bill do pass." On Feb. 5, 1897, the Indiana House passed it unanimously.

A charitable person would speculate that, like our current legislators and the more recent Patriot Act, they just didn't trouble themselves to read it before voting.

It was saved from passage by the Senate by the intervention of a Purdue math professor named Waldo who, horrified when learning about it, coached the senators.

History repeats itself. Now political interests are being used to modify, distort, ignore, and contradict scientific findings. And Kansas is once again attempting to legislate against the teaching of evolution. Some things never change.

Roy Lewallen, W7EL

2376. Re: Another hopeless text: spot the errors...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-10 00:03:24 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <chqr0c$5vl$1@hercules.btinternet.com>
Source record: 23360
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design,alt.binaries.schematics.electronic

> History repeats itself. Now political interests are being used to
> modify, distort, ignore, and contradict scientific findings. And Kansas
> is once again attempting to legislate against the teaching of evolution.
> Some things never change.
>
> Roy Lewallen, W7EL

==========

It could only happen in the USA!

2377. Re: Amplifier Oscillation

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-10 00:37:47 UTC
From: Chris <REMOVEchris1379ME@bigfoot.com>
Message-ID: <vH60d.2326$xA1.1154@newsread3.news.pas.earthlink.net>
Source record: 23361

I'm not sure if you read above but what I did worked on the small amp. I took a core with 10 turns of #20 wire and put it between the collectors. There is a solid piece of wire running through the center of it from base to base. While it seems like this should short something, it worked. The gain is reduced but I get about 60 watts with 4 watts drive. This is an 80 watt amp and it does hit that with a little more input. There is also an attenuator circuit in the front of this one so that's where part of the gain goes. I guess my question is can I hurt anything this way?

Chris

Chris
"Steve Nosko" <suteuve.nosukowicuz@moutouroula.com> wrote in message news:chqbeb$fq6$1@newshost.mot.com...
|
| "Fred McKenzie" <fmmck@aol.com> wrote in message
| news:20040907120637.11452.00003108@mb-m23.aol.com...
| > ...
| > I agree with Allison that you should look at the power bus. You often
| find
| > designs with two or three parallel filter capacitors with values spread
| over
| > the range of 100 pf to 10 uf, all with shortest possible leads including
| PCB
| > tracks.
|
| This can be an issue as well. When a cap is above its parallel resonant
| freq., it looks inductive and can resonate with one of the other caps. A
| parallel resonance has a higher impedance than the cap. While this
| resonance may be of poor quality, the extremely low impedance of the
| transistor collector makes an ohm or two rather significant. Our standard
| practice was to place a small bead between the caps. They were about 1/8
| inch in dia and had about 50 ohms real Z above a few Mhz. This helped to
| destroy any higher freq resonances while preserving the low freq impedance
| of the parallel caps.
|
| In earlier days, on VHF, we would sometimes put a "banana" from base to
| collector. This was our slang for a series orange drop (I think mylar)
cap
| and two (one on each end) low valued resistors. Don't remember all the
| values, but the idea was to kill the low freq gain. The cap blocked the
| collector voltage and had enough inductance and in combo with the two (I
| think 33 ohm) resistors was high relative to the base and collector
| impedances. I think the cap may have been .01, but memory faded... The
low

| freq collector load in this situation is the supply bypass method...or the
| power supply leads, in lew thereof....
|
| Heck. I remember running a Development Engineernig prototype 100W Micor
on
| 30 Mhz for many months, wondering why I seemed to have battery problems,
| when I found large (size -wattage) and quite low valued resistors directly
| from base to collector of the finals (which were always tied to the
| battery). Guess someone was trying a flight fix and didn't think any DC
| blocking was necessary! Transmitter worked fine. I just had a high static
| drain.
|
| --
| Steve N, K,9;d, c. i My email has no u's.
|
|

2378. Re: Another hopeless text: spot the errors...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-10 00:46:31 UTC
From: Clarence <No@No.Com>
Message-ID: <HP60d.17750$_v6.9321@newssvr27.news.prodigy.com>
Source record: 23362
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design,alt.binaries.schematics.electronic

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:chqr0c$5vl$1@hercules.btinternet.com...
> > History repeats itself. Now political interests are being used to
> > modify, distort, ignore, and contradict scientific findings. And Kansas
> > is once again attempting to legislate against the teaching of evolution.
> > Some things never change.
> >
> > Roy Lewallen, W7EL
>
> ============================
>
> It could only happen in the USA!
>

A flaw in the system called Democracy?

2379. Re: Another hopeless text: spot the errors...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-10 02:05:19 UTC
From: "Gary S." <Idontwantspam@net>
Message-ID: <cq22k0l55eafq8gshu2e0sg188qr4pepfc@4ax.com>
Source record: 23363
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design,alt.binaries.schematics.electronic

On Fri, 10 Sep 2004 00:46:31 GMT, "Clarence" <No@No.Com> wrote:

>"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
>news:chqr0c$5vl$1@hercules.btinternet.com...
>> > History repeats itself. Now political interests are being used to
>> > modify, distort, ignore, and contradict scientific findings. And Kansas
>> > is once again attempting to legislate against the teaching of evolution.
>> > Some things never change.
>> >
>> > Roy Lewallen, W7EL
>>
>> It could only happen in the USA!
>>
>A flaw in the system called Democracy?
>
Democracy works best with a well educated, critical thinking,
intelligent group of voters capable of seeing long term effects.

Someday, we might see how that works out.

Happy trails,
Gary (net.yogi.bear)
---
at the 51st percentile of ursine intelligence

Gary D. Schwartz, Needham, MA, USA
Please reply to: garyDOTschwartzATpoboxDOTcom

2380. Re: Another hopeless text: spot the errors...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-10 02:16:08 UTC
From: Rich Grise <null@example.net>
Message-ID: <l780d.22097$x12.17653@trnddc05>
Source record: 23364
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design,alt.binaries.schematics.electronic

On Thursday 09 September 2004 07:05 pm, Gary S. did deign to grace us with
the following:
> On Fri, 10 Sep 2004 00:46:31 GMT, "Clarence" <No@No.Com> wrote:
>>"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
>>> > History repeats itself. Now political interests are being used to
>>> > modify, distort, ignore, and contradict scientific findings. And
>>> > Kansas is once again attempting to legislate against the teaching of
>>> > evolution. Some things never change.
>>>
>>> It could only happen in the USA!
>>>
>>A flaw in the system called Democracy?
>>
> Democracy works best with a well educated, critical thinking,
> intelligent group of voters capable of seeing long term effects.
>
> Someday, we might see how that works out.

I think when everybody gets that smart, we'll all realize that Enlightened
Self-Interest is the best all around. We'll use something much like
democracy for decisions that affect groups of people, like, where should
the road go? Of course, if people would just quit spending on war, there'd
be enough left over to feed everyone on the planet for the rest of their
life, and government would be kinda moot.

Yeah, dream on. Think I'll have another toke. %-}

Cheers!
Rich

2381. Re: Is ours the most technical hobby in the world?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-10 02:46:11 UTC
From: rmonagha@engr.smu.edu
Message-ID: <chr4hjlpg1@blaze.seas.smu.edu>
Source record: 23365

quoting:
CBers and CBers-Masquerading-As-Radio-Hams contribute
to the hobby of CB and not to the technical pursuit that is Ham Radio.

Those who are not technically motivated nor technically qualified
are unsuitable as Ham Radio licensees.
unquote:

you may be right - in Germany (per your path)?

But here in the USA, the justification for amateur radio spectrum and existence is called PICON - public interest, convenience, or necessity. The goal is communications at the most basic level. Technical pursuits or qualifications are not a core concern of the licensing body (FCC).

You also have to be careful about such issues as "technically qualified", since it requires someone to define who is qualified, what they need to be qualified in, and why ;-)

The USA's licensing body (FCC) has defined a rather basic set of core technical competencies for the entry level licenses, and most advanced countries seem to have similar modest technical standards (the old Soviet system may be an exception etc. where you had to build your own radio station?).

Now flip thru an RSGB or ARRL handbook, and ask yourself how many of the various modes and bands and projects have _you_ done? ;-) I am still doing new stuff (VLF beacons, modulated lasers for field day's 3 modes credit etc.), which means I am certainly not technically qualified in all the areas of ham radio yet ;-) Plus they keep inventing new ones all the time.

in short, if you feel you are "technically competent" in (all of) ham radio, you may not be paying enough attention to all that's going on. ;-)

Finally, when the chips are down and ham radio has to prove its value thru emergency communications or whatever, there are lots of very technically competent folks who aren't setup or interested or trained in providing such communications. So the laurels often go to those who some might deride as "appliance operators" who are able to provide such communications. Many of those folks are just as elite and capable in their own areas of ham radio as those with a more technical bent might be in ours...

grins bobm

--
****

* Robert Monaghan POB 752182 Southern Methodist Univ. Dallas Tx 75275 *
**********Standard Disclaimers Apply**********

2382. Re: Another hopeless text: spot the errors...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-10 02:53:49 UTC
From: Wes Stewart <n7ws_@_yahoo.com>
Message-ID: <i752k09p9k7a1i66kk1e4fhjo76dtp5etq@4ax.com>
Source record: 23366

On Fri, 10 Sep 2004 00:03:24 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

|> History repeats itself. Now political interests are being used to
|> modify, distort, ignore, and contradict scientific findings. And Kansas
|> is once again attempting to legislate against the teaching of evolution.
|> Some things never change.
|>
|> Roy Lewallen, W7EL
|
|============================
|
|It could only happen in the USA!

Wife and I have traveled to over half the states now and we usually try to visit the state capital buildings. (We live 90 miles from the AZ building but haven't seen it).

Most of these examples of sparing no expense when you have an unlimited supply of tax money, try to mimic the US Capital. Some even like to claim that they are taller, wide, grander, etc. They are also very much like airports, in that they are always undergoing remodeling.

One other thing they seem to have in common is an appreciation of the female form, particularly exposed breasts. Mind you, I find these very interesting too, but often the legislators, who during their deliberations are being overseen by paintings and statues featuring these delightful forms, are busy passing laws against topless dancing, declaring "low-rise" jeans illegal, fussing about dirty movies and so forth.

Maybe we were better off under King George, and I don't mean the one currently in the White House.

2383. Re: Is ours the most technical hobby in the world?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-10 03:09:44 UTC
From: rmonagha@engr.smu.edu
Message-ID: <chr5to$m8k$1@blaze.seas.smu.edu>
Source record: 23367

answer: roughly half, since that's the USA proportion who have gotten on the air with their own station, which usually involves system tradeoff studies and system integration issues, if nothing else, antenna building and location, and so on. Not the answer you expected? ;-)

I keep meaning to write an article for QST on A.R.S.E. - amateur radio system engineers (grins), following up on Forest Mims III observation in Nuts and VOlts that electronic hobbyists no longer work much at the component level (thanks largely to microcontrollers and integrated chips (PLAs...). Most of us work at subsystem level in projects (at least in terms of decades past).

On the other hand, the amateur radio systems many of us have are far more complex, with lots more interactions (e.g., software issues, antenna interactions for multi-bands and modes, satellite orbit predictions, and more modes and bands of operation than the 3 or 5 band AM/CW or SSB/CW rigs of the 1950s and 1970s. We have five different types of antenna coax connectors on our dual band ATV system, between two transmitters, beam antennas, preamps, downconverters, and all the rest.

And yeah, I have EE and CSE graduate degrees as well as a systems engineering grad degree; but the reason they pay systems engineers more on average is that making things work together well (hardware, software..) is often far harder than designing or building the components. Read comp.risks digest to see something of what I mean ;-)

And fyi, practically all the designs now are done on computer (from boeing 777 down), and lots of graduating engineers have minimal exposure to building anything either (usually just a simple senior design project, maybe a few kits on the side). There is very little of the cut and try approach often illustrated here ;-)

On the other hand, they may have designed microprocessor cores and tested them in software, which would have been far beyond some of the heroic and epic hardware designs of just 30 years ago (see my serial #186 example of the world's first microcomputer (Intel 4004 from 1972) at http://people.smu.edu/rmonagha/4004.html).

grins bobm
--
****
* Robert Monaghan POB 752182 Southern Methodist Univ. Dallas Tx 75275 *
**********Standard Disclaimers Apply**********

2384. test only

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-10 03:17:36 UTC
From: bruce johnson <vk3mn@hotmail.com>
Message-ID: <41411c5b@news.alphalink.com.au>
Source record: 23368

ignore only a test

2385. Re: Is ours the most technical hobby in the world?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-10 03:20:56 UTC
From: rmonagha@engr.smu.edu
Message-ID: <chr6iomhj1@blaze.seas.smu.edu>
Source record: 23369

from http://dictionary.reference.com/search?q=robot

A mechanical device that sometimes resembles a human and is capable of performing a variety of often complex human tasks on command or by being programmed in advance.

A machine or device that operates automatically or by remote control.
endquote:

Depends on your definition and viewpoint; sad to say, virtually all the world's working robots in factories bear little resemblance to humans (other than the demo walking robot from Japan, I guess? ;-0)

We had an IEEE sponsored contest to build software for battlefield robots some years ago (late 1980s IIRC?). End up looking like a video game, which is what the students wanted to build anyway. ;-)

I'm recording a 2 hour PBS program on videogame revolution tonight, so I suspect it will be deja vu. However, Tom Clancy, the noted author of Red October etc., made a point when on campus last year that the military is using videogames corp. for training, and that the years of hand-eye coordination training from gaming was a big plus in preparing young men and women to utilize incredibly complex systems with videogame style interfaces.

Personally, I wouldn't _want_ an autonomous battlefield robot without using some human interaction in the loop. No sense making the term "killer software bugs" come true ;-)

grins bobm
--
****
* Robert Monaghan POB 752182 Southern Methodist Univ. Dallas Tx 75275 *
**********Standard Disclaimers Apply**********

2386. Re: Another hopeless text: spot the errors...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-10 04:18:44 UTC
From: "Gary S." <Idontwantspam@net>
Message-ID: <fp72k09ckiukmlecp0gmiebvhlj2cci137@4ax.com>
Source record: 23370

On Thu, 09 Sep 2004 19:53:49 -0700, Wes Stewart <n7ws_@_yahoo.com>
wrote:

>One other thing they seem to have in common is an appreciation of the
>female form, particularly exposed breasts. Mind you, I find these
>very interesting too, but often the legislators, who during their
>deliberations are being overseen by paintings and statues featuring
>these delightful forms, are busy passing laws against topless dancing,
>declaring "low-rise" jeans illegal, fussing about dirty movies and so
>forth.
>
The Massachusetts Legislature passed a law requiring trigger locks on
all firearms not in use.

Then someone noticed the antique Revolutionary War flintlock musket
hanging on the wall of the chamber, and they had a trigger lock placed
on that.

Especially amusing if you understand how a flintlock works (hint: a
trigger lock does not prevent it from firing, just makes it more
difficult).

>Maybe we were better off under King George, and I don't mean the one
>currently in the White House.
>
Many historians believe that George III may have been mad at the time,
in later life more so.

Happy trails,
Gary (net.yogi.bear)
---
at the 51st percentile of ursine intelligence

Gary D. Schwartz, Needham, MA, USA
Please reply to: garyDOTschwartzATpoboxDOTcom

2387. Re: Another hopeless text: spot the errors...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-10 05:51:10 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10k2g6hbf34on12@corp.supernews.com>
Source record: 23371
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design,alt.binaries.schematics.electronic

Clarence wrote:

> "Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
> news:chqr0c$5vl$1@hercules.btinternet.com...
>
>>>History repeats itself. Now political interests are being used to
>>>modify, distort, ignore, and contradict scientific findings. And Kansas
>>>is once again attempting to legislate against the teaching of evolution.
>>>Some things never change.
>>>
>>>Roy Lewallen, W7EL
>>
>>============================
>>
>>It could only happen in the USA!
>>
>
>
>
> A flaw in the system called Democracy?

Yes, the flaw in democracy is that we get what we collectively deserve.
And that's a scary thought.

Roy Lewallen

2388. Re: Another hopeless text: spot the errors...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-10 06:20:20 UTC
From: John Woodgate <jmw@jmwa.demon.contraspam.yuk>
Message-ID: <EG803wBkeUQBFw$W@jmwa.demon.co.uk>
Source record: 23372

I read in sci.electronics.design that Rich Grise <null@example.net>
wrote (in <I780d.22097$x12.17653@trnddc05>) about 'Another hopeless
text: spot the errors...', on Fri, 10 Sep 2004:

>I think when everybody gets that smart, we'll all realize that
>Enlightened Self-Interest is the best all around.

I entirely agree. It's rather a simple concept; I tell children about
it. It can be related to religion, agnosticism and moral atheism.

The only requirement is that all parties are clever enough, and patient
enough, to find a solution consistent with ESI. For the really big
problems, we haven't evolved far enough yet.
--
Regards, John Woodgate, OOO - Own Opinions Only.
The good news is that nothing is compulsory.
The bad news is that everything is prohibited.
http://www.jmwa.demon.co.uk Also see http://www.isce.org.uk

2389. Re: Another hopeless text: spot the errors...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-10 07:40:33 UTC
From: Rex <me@hutmail.invalid>
Message-ID: <pom2k01t06a0uj65vu7rnhu4hto1795l7r@4ax.com>
Source record: 23373

On Fri, 10 Sep 2004 07:20:20 +0100, John Woodgate
<jmw@jmwa.demon.contraspam.yuk> wrote:

>>I think when everybody gets that smart, we'll all realize that
>>Enlightened Self-Interest is the best all around.
>
>I entirely agree. It's rather a simple concept; I tell children about
>it. It can be related to religion, agnosticism and moral atheism.
>
>The only requirement is that all parties are clever enough, and patient
>enough, to find a solution consistent with ESI. For the really big
>problems, we haven't evolved far enough yet.

Well no wonder.
Your self interest isn't as enlightened as mine.

2390. Re: Is ours the most technical hobby in the world?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-10 10:36:52 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <1l03k0tvnuj6fapqci0m9fjdnr8mdnuc66@4ax.com>
Source record: 23374

On 9 Sep 2004 21:46:11 -0500, rmonagha@engr.smu.edu (Bob Monaghan)
wrote:

>Finally, when the chips are down and ham radio has to prove its value thru
>emergency communications or whatever, there are lots of very technically
>competent folks who aren't setup or interested or trained in providing
>such communications. So the laurels often go to those who some might
>deride as "appliance operators" who are able to provide such
>communications. Many of those folks are just as elite and capable in
>their own areas of ham radio as those with a more technical bent might be
>in ours...

I don't see what's so elite about buying a black box off a shelf,
connecting it up and shouting into it, as most of them do, when the
other station is distant - regardless of quality of reception. Sure,
black box operators may save the day in the event of an emergency, but
the degree of study, experimentation and practice they have to undergo
to pull it off is minimal at best and demands zero respect, IMV.
--

"What is now proved was once only imagin'd." - William Blake, 1793.

2391. FA: Quality RF components

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-10 10:40:56 UTC
From: Richard Sterry <no_spam@all.ever>
Message-ID: <chs0bp$dm3$1$8300dec7@news.demon.co.uk>
Source record: 23375

Quality RF components for auction on eBay. Only 2 days left:

RS Multi-turn analogue dial mechanism, new

http://cgi.ebay.co.uk/ws/eBayISAPI.dll?ViewItem&item=3838102366

Miniature air-spaced trimmer capacitors (x3)

http://cgi.ebay.co.uk/ws/eBayISAPI.dll?ViewItem&item=3838102362

Miniature air-spaced trimmer capacitors, new (x12)

http://cgi.ebay.co.uk/ws/eBayISAPI.dll?ViewItem&item=3838102360

Air-spaced variable capacitors (x15)

http://cgi.ebay.co.uk/ws/eBayISAPI.dll?ViewItem&item=3838102357

No reserves.

--
Rick G4BLT

2392. Re: Another hopeless text: spot the errors...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-10 13:55:37 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10k3cin6anbo7db@corp.supernews.com>
Source record: 23376
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design,alt.binaries.schematics.electronic

Roy Lewallen wrote:
> Gary S. wrote:
>
>> On Thu, 09 Sep 2004 20:09:55 GMT, "Tom Donaly"
>> <dtdonaly@sbcglobal.net> wrote:
>>
>>>
>>> They (the politicians) were relying on that vast storehouse of
>>> scientific information, the
>>> Bible, for their instruction.
>>> 73,
>>> Tom Donaly, KA6RUH
>>
>>
>>
>> I missed that part. Guess it would be in the Book of Numbers.
>> . . .
>
>
> Actually, it's in I Kings vii.23 and II Chronicles iv.2:
>
> "Also, he made a molten sea of ten cubits from brim to brim, round in
> compass, and five cubits the height thereof; and a line of thirty cubits
> did compass it round about."
>
> In _A History of Pi_ by Petr Beckmann, the author states (p. 174) that
> "There is a story about some American legislature having considered a
> bill to legislate, for religious reasons, the biblical value of pi = 3.
> I have found no confirmation of this story; very probably it grew out of
> an episode that actually took place in the State Legislature of Indiana
> in 1897." He describes the incident. . .
>
> A bill was introduced in the Indiana House in 1897 which said in the
> preamble:
>
> "A bill for an act introducing a new mathematical truth and offered as a
> contribution to education to be used only by the State of Indiana free
> of cost by paying any royalties whatever on the same, provided it is
> accepted and adopted by the official action of the legislature in 1897."
>
> In Section 1, the value of pi is effectively declared to be about 9.2.
> In Section 2, it's said to be exactly 3.2. The bill was referred
> ["perhaps symbolically", muses Beckmann] to the House Committee on Swamp

> Lands, which passed it to the Committee of Education, which reported it
> back to the House "with recommendation that said bill do pass." On Feb.
> 5, 1897, the Indiana House passed it unanimously.
>
> A charitable person would speculate that, like our current legislators
> and the more recent Patriot Act, they just didn't trouble themselves to
> read it before voting.
>
> It was saved from passage by the Senate by the intervention of a Purdue
> math professor named Waldo who, horrified when learning about it,
> coached the senators.
>
> History repeats itself. Now political interests are being used to
> modify, distort, ignore, and contradict scientific findings. And Kansas
> is once again attempting to legislate against the teaching of evolution.
> Some things never change.
>
> Roy Lewallen, W7EL

In some states (Oregon included, IIRC), pi _is_ legally equal to three
-- at least for the purposes of calculating the number of board feet in
a log, and most likely as an informed decision to make calculation easier.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

2393. Re: Another hopeless text: spot the errors...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-10 14:09:07 UTC
From: John Woodgate <jmw@jmwa.demon.contraspam.yuk>
Message-ID: <L5FHouBDWbQBFwMm@jmwa.demon.co.uk>
Source record: 23377
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design,alt.binaries.schematics.electronic

I read in sci.electronics.design that Tim Wescott
<tim@wescottnospamdesign.com> wrote (in <10k3cin6anbo7db@corp.supernews.
com>) about 'Another hopeless text: spot the errors...', on Fri, 10 Sep
2004:
>In some states (Oregon included, IIRC), pi _is_ legally equal to three -
>- at least for the purposes of calculating the number of board feet in a
>log, and most likely as an informed decision to make calculation easier.

It is, AIUI, based on an average diameter and allows for the taper of
the log.
--
Regards, John Woodgate, OOO - Own Opinions Only.
The good news is that nothing is compulsory.
The bad news is that everything is prohibited.
http://www.jmwa.demon.co.uk Also see http://www.isce.org.uk

2394. Re: Another hopeless text: spot the errors...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-10 15:03:15 UTC
From: Wes Stewart <n7ws_@_yahoo.com>
Message-ID: <m3g3k0lkq241hjcd0ehq8ujgrk8f29n3ra@4ax.com>
Source record: 23378

On Fri, 10 Sep 2004 02:05:19 GMT, Gary S. <Idontwantspam@net> wrote:

|On Fri, 10 Sep 2004 00:46:31 GMT, "Clarence" <No@No.Com> wrote:
|
|>"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
|>news:chqr0c$5vl$1@hercules.btinternet.com...
|>> > History repeats itself. Now political interests are being used to
|>> > modify, distort, ignore, and contradict scientific findings. And Kansas
|>> > is once again attempting to legislate against the teaching of evolution.
|>> > Some things never change.
|>> >
|>> > Roy Lewallen, W7EL
|>>
|>> It could only happen in the USA!
|>>
|>A flaw in the system called Democracy?
|>
|Democracy works best with a well educated, critical thinking,
|intelligent group of voters capable of seeing long term effects.
|
|Someday, we might see how that works out.

Doubtful. Of course real democracy is when nine of ten people in a
room can vote to kill the tenth.

2395. Re: Another hopeless text: spot the errors...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-10 15:18:10 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10k3hdft9anqrd9@corp.supernews.com>
Source record: 23379
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design,alt.binaries.schematics.electronic

John Woodgate wrote:

> I read in sci.electronics.design that Tim Wescott
> <tim@wescottnospamdesign.com> wrote (in <10k3cin6anbo7db@corp.supernews.
> com>) about 'Another hopeless text: spot the errors...', on Fri, 10 Sep
> 2004:
>
>>In some states (Oregon included, IIRC), pi _is_ legally equal to three -
>>- at least for the purposes of calculating the number of board feet in a
>>log, and most likely as an informed decision to make calculation easier.
>
>
> It is, AIUI, based on an average diameter and allows for the taper of
> the log.

Probably -- I suppose if you measure more toward the butt end of the log that'll take care of the 0.14159etc.

I used to know a guy who had worked at a company that made estimator pads for log scalers -- had keys to enter all the parameters, an LCD screen, microprocessor, the whole nine yards. The first time he went to check it with a _real_ log scaler this old coot stepped out of the shack, looked at an entire load of lumber on a truck and said "that's about X board-feet". Kevin spent half an hour measuring and entering and came up with the same number.

Progress. Go figure.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

2396. Re: Another hopeless text: spot the errors...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-10 15:26:34 UTC
From: Jim Thompson <thegreatone@example.com>
Message-ID: <ajh3k058irsom592a9cn53d3vbf4t9i5tj@4ax.com>
Source record: 23380
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design,alt.binaries.schematics.electronic

On Fri, 10 Sep 2004 08:18:10 -0700, Tim Wescott
<tim@wescottnospamdesign.com> wrote:

[snip]
>I used to know a guy who had worked at a company that made estimator
>pads for log scalers -- had keys to enter all the parameters, an LCD
>screen, microprocessor, the whole nine yards. The first time he went to
>check it with a _real_ log scaler this old coot stepped out of the
>shack, looked at an entire load of lumber on a truck and said "that's
>about X board-feet". Kevin spent half an hour measuring and entering
>and came up with the same number.
>
>Progress. Go figure.

That's how my grandfather on my mother's side made his fortune.

At age 17 (in 1913) he was sent by a building contractor to pick up
some lumber (by horse-drawn wagon).

He argued with the estimator that the load was short. (Doing all the
calculations in his head.)

The saw-mill boss came up to settle the dispute... the estimator was
fired and my grandfather was hired.

Later he owned the saw-mill and a coal mine and a *HUGE* farm in
Barbour County, WV.

...Jim Thompson
--
James E.Thompson, P.E.	mens
Analog Innovations, Inc.	et
Analog/Mixed-Signal ASIC's and Discrete Systems	manus
Phoenix, Arizona Voice:(480)460-2350	
E-mail Address at Website Fax:(480)460-2142	Brass Rat
http://www.analog-innovations.com	1962

I love to cook with wine. Sometimes I even put it in the food.

2397. Re: Another hopeless text: spot the errors...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-10 16:14:41 UTC
From: John Woodgate <jmw@jmwa.demon.contraspam.yuk>
Message-ID: <tfpuhBCxLdQBFwL5@jmwa.demon.co.uk>
Source record: 23381
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design,alt.binaries.schematics.electronic

I read in sci.electronics.design that Tim Wescott
<tim@wescottnospamdesign.com> wrote (in <10k3hdft9anqrd9@corp.supernews.
com>) about 'Another hopeless text: spot the errors...', on Fri, 10 Sep
2004:
>I used to know a guy who had worked at a company that made estimator
>pads for log scalers -- had keys to enter all the parameters, an LCD
>screen, microprocessor, the whole nine yards. The first time he went to
>check it with a _real_ log scaler this old coot stepped out of the
>shack, looked at an entire load of lumber on a truck and said "that's
>about X board-feet". Kevin spent half an hour measuring and entering
>and came up with the same number.
>
>Progress. Go figure.

The old coot had probably already measured it. Old coots have a way of
fixing to win.
--
Regards, John Woodgate, OOO - Own Opinions Only.
The good news is that nothing is compulsory.
The bad news is that everything is prohibited.
http://www.jmwa.demon.co.uk Also see http://www.isce.org.uk

2398. Re: Is ours the most technical hobby in the world?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-10 16:18:42 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2qe2k5Ftkjr1U3@uni-berlin.de>
Source record: 23382

I am afraid that you are mistaken, and once again it
is your own personality defects that shine through.
I do not look down upon anybody.

CBers and CBers-Masquerading-As-Radio-Hams
are merely following a different pursuit to that which I follow,
as, indeed, are fishermen, needleworkers, football
players and supports, and RC model exponents.

They are merely fellow humans who do not share my interests
and so I do not associate with them.

That you once again resort to rather silly and childish forms
of self-expression below reinforces the perception that
you are a CBer and not a Radio Ham.

"Tom Donaly" <dtdonaly@sbcglobal.net> wrote in message
news:zH20d.17715$eF4.16552@newssvr27.news.prodigy.com...
> Well, I'm glad to hear that you're a real Smithfield, Airy, and can
> look down on those of us non-technicians who don't share your narrow
> view of Ham Radio. Every hobby needs its share of tin-pot deities to
> provide comic relief to its other practitioners. Carry on, m'boy.

2399. Re: Is ours the most technical hobby in the world?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-10 16:23:21 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2qe312Fu120iU1@uni-berlin.de>
Source record: 23383

Ham Radio is what Hams do, and not what the regulatory
powers seek to restrict.

Radio Hams are technical people. Those who buy radios
off-the-shelf, notwithstanding that they may have qualified
as Hams are behaving as CBers and are viewed as such.

"Bob Monaghan" <rmonagha@engr.smu.edu> wrote in message
news:chr4hjlpg1@blaze.seas.smu.edu...
> quoting:
> CBers and CBers-Masquerading-As-Radio-Hams contribute
> to the hobby of CB and not to the technical pursuit that is Ham Radio.
>
> Those who are not technically motivated nor technically qualified
> are unsuitable as Ham Radio licensees.
> unquote:
>
> you may be right - in Germany (per your path)?
>
> But here in the USA, the justification for amateur radio spectrum and
> existence is called PICON - public interest, convenience, or necessity.
> The goal is communications at the most basic level. Technical pursuits or
> qualifications are not a core concern of the licensing body (FCC).
>
> You also have to be careful about such issues as "technically qualified",
> since it requires someone to define who is qualified, what they need to be
> qualified in, and why ;-)
>
> The USA's licensing body (FCC) has defined a rather basic set of core
> technical competencies for the entry level licenses, and most advanced
> countries seem to have similar modest technical standards (the old Soviet
> system may be an exception etc. where you had to build your own radio
> station?).
>
> Now flip thru an RSGB or ARRL handbook, and ask yourself how many of the
> various modes and bands and projects have _you_ done? ;-) I am still doing
> new stuff (VLF beacons, modulated lasers for field day's 3 modes credit
> etc.), which means I am certainly not technically qualified in all the
> areas of ham radio yet ;-) Plus they keep inventing new ones all the time.
>
> in short, if you feel you are "technically competent" in (all of) ham
> radio, you may not be paying enough attention to all that's going on. ;-)
>
> Finally, when the chips are down and ham radio has to prove its value thru
> emergency communications or whatever, there are lots of very technically

> competent folks who aren't setup or interested or trained in providing
> such communications. So the laurels often go to those who some might
> deride as "appliance operators" who are able to provide such
> communications. Many of those folks are just as elite and capable in
> their own areas of ham radio as those with a more technical bent might be
> in ours...
>
> grins bobm
>
> --
> ***
> * Robert Monaghan POB 752182 Southern Methodist Univ. Dallas Tx 75275 *
> ********************Standard Disclaimers Apply*************************

2400. Re: Another hopeless text: spot the errors...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-10 18:45:28 UTC
From: Clarence <No@No.Com>
Message-ID: <cDm0d.18502$LD1.3544@newssvr29.news.prodigy.com>
Source record: 23385
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design,alt.binaries.schematics.electronic

"Tim Wescott" <tim@wescottnospamdesign.com> wrote in message
news:10k3cin6anbo7db@corp.supernews.com...
> Roy Lewallen wrote:

<snip>

> In some states (Oregon included, IIRC), pi _is_ legally equal to three
> -- at least for the purposes of calculating the number of board feet in
> a log, and most likely as an informed decision to make calculation easier.

"I know you are a logger, sir, and not a common bum,
'Cause no one but a logger stirs his coffee with his thumb."

Maybe the reason for the rounding down is more obvious than that!

2401. Re: Another hopeless text: spot the errors...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-10 18:48:51 UTC
From: "Gary S." <Idontwantspam@net>
Message-ID: <1mt3k0p705t3q8336vho288ms3mgpm1sbg@4ax.com>
Source record: 23384
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design,alt.binaries.schematics.electronic

On Fri, 10 Sep 2004 17:14:41 +0100, John Woodgate
<jmw@jmwa.demon.contraspam.yuk> wrote:

>I read in sci.electronics.design that Tim Wescott
><tim@wescottnospamdesign.com> wrote (in <10k3hdft9anqrd9@corp.supernews.
>com>) about 'Another hopeless text: spot the errors...', on Fri, 10 Sep
>2004:
>>I used to know a guy who had worked at a company that made estimator
>>pads for log scalers -- had keys to enter all the parameters, an LCD
>>screen, microprocessor, the whole nine yards. The first time he went to
>>check it with a _real_ log scaler this old coot stepped out of the
>>shack, looked at an entire load of lumber on a truck and said "that's
>>about X board-feet". Kevin spent half an hour measuring and entering
>>and came up with the same number.
>>
>>Progress. Go figure.
>
>The old coot had probably already measured it. Old coots have a way of
>fixing to win.

Not always.

Some get enough experience that they can eye something to an amazing
degree of accuracy. Just takes 25 years of practice.

Happy trails,
Gary (net.yogi.bear)
---
at the 51st percentile of ursine intelligence

Gary D. Schwartz, Needham, MA, USA
Please reply to: garyDOTschwartzATpoboxDOTcom

2402. Re: Another hopeless text: spot the errors...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-10 18:50:29 UTC
From: Clarence <No@No.Com>
Message-ID: <VHm0d.18505$gl1.1729@newssvr29.news.prodigy.com>
Source record: 23386

"Wes Stewart" <n7ws_@_yahoo.com> wrote in message
news:m3g3k0lkq241hjcd0ehq8ujgrk8f29n3ra@4ax.com...
> On Fri, 10 Sep 2004 02:05:19 GMT, Gary S. <Idontwantspam@net> wrote:
>
> |On Fri, 10 Sep 2004 00:46:31 GMT, "Clarence" <No@No.Com> wrote:
> |
> |>"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
> |>news:chqr0c$5vl$1@hercules.btinternet.com...
> |>> > History repeats itself. Now political interests are being used to
> |>> > modify, distort, ignore, and contradict scientific findings. And Kansas
> |>> > is once again attempting to legislate against the teaching of
evolution.
> |>> > Some things never change.
> |>> >
> |>> > Roy Lewallen, W7EL
> |>>
> |>> It could only happen in the USA!
> |>>
> |>A flaw in the system called Democracy?
> |>
> |Democracy works best with a well educated, critical thinking,
> |intelligent group of voters capable of seeing long term effects.
> |
> |Someday, we might see how that works out.
>
> Doubtful. Of course real democracy is when nine of ten people in a
> room can vote to kill the tenth.

--
A democracy is nothing more than mob rule, where fifty-one percent of the
people may take away the rights of the other forty-nine.
Thomas Jefferson

2403. Re: Is ours the most technical hobby in the world?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-10 19:00:59 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <chstq2$s50$1@newshost.mot.com>
Source record: 23387

"Paul Burridge" <pb@notthisbit.osiris1.co.uk> wrote in message
news:09m0k018trmfu0i73ugjggqaq4p0u7cg8s@4ax.com...
> On 09 Sep 2004 11:42:56 GMT, troglodite@aol.com (Troglodite) wrote:
>
> >>About the closest group to beating us in
> >>public visibility is probably those guys and gals with the battling
robots
> >>with buzz saws on PBS robot wars, right? ;-) ;-)
> >
> >But technically, those machines are NOT robots. If they were true robots,
they
> >would devise their own strategy. They are simply radio controlled
devices.
>
> Yes, as yet. But given time, no doubt there'll be a category for
> autonymous fighting robots. A few of us have attempted it, but only
> scratched the surface of the possibilities.

I only have a link to this one.
http://www.cuuav.org/

There are already soccer playing robots in development (and playing games in
competition) at some universities. You obviously don't watch TV's NOVA.

--
Steve N, K,9;d, c. i My email has no u's.
.

2404. Re: Amplifier Oscillation

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-10 19:08:13 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <chsu7k$s67$1@newshost.mot.com>
Source record: 23388

"Chris" <REMOVEchris1379ME@bigfoot.com> wrote in message
news:vH60d.2326$xA1.1154@newsread3.news.pas.earthlink.net...
> I'm not sure if you read above but what I did worked on the small amp. I
> took a core with 10 turns of #20 wire and put it between the collectors.
> There is a solid piece of wire running through the center of it from base
to
> base. While it seems like this should short something, it worked. The gain
> is reduced but I get about 60 watts with 4 watts drive. This is an 80 watt
> amp and it does hit that with a little more input. There is also an
> attenuator circuit in the front of this one so that's where part of the
gain
> goes. I guess my question is can I hurt anything this way?
>
> Chris

I couldn't read it all. I was just providing general information.. Without
time and the schematic, I won't speculate...much.

I don't fully understand. A wire from base to base with a coil around it?
Can't picture this and make technical sense of it.

If they are in push pull, this sounds problematic. Doing something that
"works" but has no sound reasoning behind it is not good. I tried to give
the reasoning behind the techniques I mentioned.
--
Steve N, K,9;d, c. i My email has no u's.
>
> Chris
> "Steve Nosko" <suteuve.nosukowicuz@moutouroula.com> wrote in message
> news:chqbeb$fq6$1@newshost.mot.com...
> |
> | "Fred McKenzie" <fmmck@aol.com> wrote in message
> | news:20040907120637.11452.00003108@mb-m23.aol.com...
> | > ...
> | > I agree with Allison that you should look at the power bus. You often
> | find
> | > designs with two or three parallel filter capacitors with values
spread
> | over
> | > the range of 100 pf to 10 uf, all with shortest possible leads
including
> | PCB
> | > tracks.
> |
> | This can be an issue as well. When a cap is above its parallel resonant

> | freq., it looks inductive and can resonate with one of the other caps.
A
> | parallel resonance has a higher impedance than the cap. While this
> | resonance may be of poor quality, the extremely low impedance of the
> | transistor collector makes an ohm or two rather significant. Our
standard
> | practice was to place a small bead between the caps. They were about
1/8
> | inch in dia and had about 50 ohms real Z above a few Mhz. This helped
to
> | destroy any higher freq resonances while preserving the low freq
impedance
> | of the parallel caps.
> |
> | In earlier days, on VHF, we would sometimes put a "banana" from base to
> | collector. This was our slang for a series orange drop (I think mylar)
> cap
> | and two (one on each end) low valued resistors. Don't remember all the
> | values, but the idea was to kill the low freq gain. The cap blocked the
> | collector voltage and had enough inductance and in combo with the two (I
> | think 33 ohm) resistors was high relative to the base and collector
> | impedances. I think the cap may have been .01, but memory faded... The
> low
> | freq collector load in this situation is the supply bypass method...or
the
> | power supply leads, in lew thereof....
> |
> | Heck. I remember running a Development Engineernig prototype 100W Micor
> on
> | 30 Mhz for many months, wondering why I seemed to have battery problems,
> | when I found large (size -wattage) and quite low valued resistors
directly
> | from base to collector of the finals (which were always tied to the
> | battery). Guess someone was trying a flight fix and didn't think any DC
> | blocking was necessary! Transmitter worked fine. I just had a high
static
> | drain.
> |
> | --
> | Steve N, K,9;d, c. i My email has no u's.
> |
> |
>
>

2405. Re: Is ours the most technical hobby in the world?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-10 19:58:15 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <up14k01c9f50evqrv8gfjv7vmuejgq702e@4ax.com>
Source record: 23389

On Fri, 10 Sep 2004 14:00:59 -0500, "Steve Nosko"
<suteuve.nosukowicuz@moutouroula.com> wrote:

>There are already soccer playing robots in development (and playing games in
>competition) at some universities. You obviously don't watch TV's NOVA.

I try not to watch TV at all, if I can help it. Thanks for the update,
though.

--

"What is now proved was once only imagin'd." - William Blake, 1793.

2406. Re: Is ours the most technical hobby in the world?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-11 02:51:17 UTC
From: ablight@alphalink.com.au
Message-ID: <1fc7b362.0409101851.760ae52@posting.google.com>
Source record: 23390

rmonagha@engr.smu.edu (Bob Monaghan) wrote in message
news:<chlgsf$24g$1@blaze.seas.smu.edu>...
> I suspect we old-timers are wrong in believing that more radios were
> designed or made in the past than today, probably by factors of 500% or
> more. The main reason is QRP radios using modern ICs for the receivers and
> MOSFET transmitters, coupled with a revival of nostalgia tube simple
> transmitters.
>
>Some snipped to save space

Bob, a very well reasoned and written response to the original posting
- I can only concur. What seems to be forgotten is that amateur radio
has only ever been a hobby appealing to a small minority of
technically inclined people - the same numbers are still there, but
with the ready availability of store bought radios, the numbers seem
even smaller. A cursory search of the net reveals many people doing
many interesting things.

If we keep canning each other with "Yor only a CBer" type labels, then
yes indeed, things are grim - things will NEVER be as good as the "old
days" -thats why we call it nostalgia, and your points about using
surplus ww2 junk etc are correct - that wasnt homebrew, it was
adaption of existing equipment.

There is SO much stuff out there that can be modified/adapted to ham
use - junked computer UPS supplies provide a BIG 18v power transformer
for a homebrew linear supply, ex computer switchmode supplies are easy
to mod to 12v at 20 amps plus.

Perhaps the problem is lack of lateral thinking - one thing is for
sure, as long as we continue to argue and bitch and denigrate amongst
ourselves, how can we expect (or even deserve) continued free access
to the radio spectrum we are licensed to use!

73 de VK3BFA Andrew.

2407. Re: Another hopeless text: spot the errors...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-11 03:49:05 UTC
From: Tim Williams <tmoranwms@charter.net>
Message-ID: <10k4tcplp6sd7c0@corp.supernews.com>
Source record: 23391
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design,alt.binaries.schematics.electronic

"Gary S." <Idontwantspam@net> wrote in message
news:1mt3k0p705t3q8336vho288ms3mgpm1sbg@4ax.com...
> Some get enough experience that they can eye something to an amazing
> degree of accuracy. Just takes 25 years of practice.

After building and molding a pattern, I can estimate how much metal it'll need to within a half pound. That means at worst, a slightly short pour and at most, a bit of metal left in the furnace (which pulls out nicely later). (Check the metalworking part of my website for terms...)

Tim

--
"I've got more trophies than Wayne Gretsky and the Pope combined!"
- Homer Simpson
Website @ http://webpages.charter.net/dawill/tmoranwms

2408. RM Italy RM3 transistors

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-11 13:02:48 UTC
From: Chris <REMOVEchris1379ME@bigfoot.com>
Message-ID: <YHC0d.241$_G4.204@newsread3.news.pas.earthlink.net>
Source record: 23392

Does anyone know a common part number for the RM3 MOSFET transistor used in RM amps (http://www.rmitaly.com/) like the KL-203, KL-60, and KL-40? I don't need to replace one I'm just very curious. I know it has to be a cheap common transistor.

Thanks,
Chris

2409. Re: Is ours the most technical hobby in the world?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-11 17:09:02 UTC
From: Nimrod <mighty@hunter.com>
Message-ID: <2qgppaFus03iU1@uni-berlin.de>
Source record: 23393

"Airy R. Bean" <me@privacy.net> wrote in message
news:2qe312Fu120iU1@uni-berlin.de...
> Ham Radio is what Hams do, and not what the regulatory
> powers seek to restrict.
>
> Radio Hams are technical people. Those who buy radios
> off-the-shelf, notwithstanding that they may have qualified
> as Hams are behaving as CBers and are viewed as such.
>

And how technical does one need to be? Enough practical experience to screw up a PL259 correctly? (Note I said correctly and by screw up do not mean fettle.)
Enough to know the nature of EM radiation (no heat bands). Enough to understand DSP?

Do tell Gareth. Do tell.

2410. Re: Is ours the most technical hobby in the world?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-11 17:09:08 UTC
From: Nimrod <mighty@hunter.com>
Message-ID: <2qgppfFv9rucU1@uni-berlin.de>
Source record: 23394

"Airy R. Bean" <me@privacy.net> wrote in message
news:2qa3ulFt8r17U1@uni-berlin.de...
>I think that you are confusing my wish to preserve Ham
> Radio as a technical pursuit with your own mental processes
> which you project so well below.
>
> Perhaps it is that you are an unwitting CBer-Masquerading-
> As-A-Radio-Ham who is annoyed at being "outed" and which
> annoyance results in you revealing the innermost workings
> of your psyche as below?
>
> It is a very exciting and inspiring thing to continue to
> educate yourself in all matters of technology - try it and
> you'll find that there is more to Ham Radio than your
> own CBisation of it!
>

Be you are a confessed CBer. Remember "some of my best friends" etc.

2411. Re: Is ours the most technical hobby in the world?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-11 17:09:11 UTC
From: Nimrod <mighty@hunter.com>
Message-ID: <2qgppiFvk4htU1@uni-berlin.de>
Source record: 23395

"Airy R. Bean" <me@privacy.net> wrote in message
news:2q8tgsFpmf3rU1@uni-berlin.de...
> Not conclusive - golf is for the brain-dead, as are off-the-shelf
> rigs.
>

Shall we list the off the shelf rigs you have owned? We could highlight the ones you have been unable to maintain- too nervous was it?

The other thing that causes brain deaf is drink- Special Brew for example.

2412. Re: Another hopeless text: spot the errors...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-11 18:30:14 UTC
From: Rich Grise <null@example.net>
Message-ID: <WuH0d.875$xH1.335@trnddc03>
Source record: 23396
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design,alt.binaries.schematics.electronic

On Friday 10 September 2004 09:14 am, John Woodgate did deign to grace us
with the following:

> I read in sci.electronics.design that Tim Wescott
> <tim@wescottnospamdesign.com> wrote (in <10k3hdft9anqrd9@corp.supernews.
> com>) about 'Another hopeless text: spot the errors...', on Fri, 10 Sep
> 2004:
>>I used to know a guy who had worked at a company that made estimator
>>pads for log scalers -- had keys to enter all the parameters, an LCD
>>screen, microprocessor, the whole nine yards. The first time he went to
>>check it with a _real_ log scaler this old coot stepped out of the
>>shack, looked at an entire load of lumber on a truck and said "that's
>>about X board-feet". Kevin spent half an hour measuring and entering
>>and came up with the same number.
>>
>>Progress. Go figure.
>
> The old coot had probably already measured it. Old coots have a way of
> fixing to win.
> --
By golly, I guess I must be an old coot. I went to Staples to get a
ream of 11x17 paper. All they had was a box. (10 reams per). The droid
said that was the only way they can sell it. I said, "Don't be stupid.
Just break open the box and get out a ream." This moron says, "Oh, they
don't have barcodes on the single reams, they can't scan it." I just
grumbled at him and went up to the register, and asked the kid, "Can
you do a price check?" - BTW, this was the same kid who had got his
boss, who was the one who said they can't sell one ream. So, the droid
is off somewhere, I go slide a ream out of the box, the kid prices it,
and it's about five bucks. So I go to the droid, and ask, "Are you a
betting man? Tell you what - let's crack that box, and if the ream is
not marked, I'll pay you five bucks, but if it is, you gotta buy it
for me." He didn't want to bet, but he relented, and went and got
the same ream that I had just had scanned, but stealthily put back,
and let me buy it. Maybe this should be a true tale of induhviduals.

Cheers!
Rich

2413. Re: Another hopeless text: spot the errors...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-11 18:31:11 UTC
From: Rich Grise <null@example.net>
Message-ID: <PvH0d.879$xH1.752@trnddc03>
Source record: 23397
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design,alt.binaries.schematics.electronic

On Friday 10 September 2004 08:18 am, Tim Wescott did deign to grace us with
the following:

> John Woodgate wrote:
>
>> I read in sci.electronics.design that Tim Wescott
>> <tim@wescottnospamdesign.com> wrote (in <10k3cin6anbo7db@corp.supernews.
>> com>) about 'Another hopeless text: spot the errors...', on Fri, 10 Sep
>> 2004:
>>
>>>In some states (Oregon included, IIRC), pi _is_ legally equal to three -
>>>- at least for the purposes of calculating the number of board feet in a
>>>log, and most likely as an informed decision to make calculation easier.
>>
>>
>> It is, AIUI, based on an average diameter and allows for the taper of
>> the log.
>
> Probably -- I suppose if you measure more toward the butt end of the log
> that'll take care of the 0.14159etc.
>
> I used to know a guy who had worked at a company that made estimator
> pads for log scalers -- had keys to enter all the parameters, an LCD
> screen, microprocessor, the whole nine yards. The first time he went to
> check it with a _real_ log scaler this old coot stepped out of the
> shack, looked at an entire load of lumber on a truck and said "that's
> about X board-feet". Kevin spent half an hour measuring and entering
> and came up with the same number.
>

Wow, Roman Numerals! How old was this guy?

;-)

2414. Re: Another hopeless text: spot the errors...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-11 18:32:20 UTC
From: Rich Grise <null@example.net>
Message-ID: <UwH0d.882$xH1.362@trnddc03>
Source record: 23298
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design,alt.binaries.schematics.electronic

On Friday 10 September 2004 08:49 pm, Tim Williams did deign to grace us
with the following:

> "Gary S." <Idontwantspam@net> wrote in message
> news:1mt3k0p705t3q8336vho288ms3mgpm1sbg@4ax.com...
>> Some get enough experience that they can eye something to an amazing
>> degree of accuracy. Just takes 25 years of practice.
>
> After building and molding a pattern, I can estimate how much metal it'll
> need to within a half pound. That means at worst, a slightly short pour
> and at most, a bit of metal left in the furnace (which pulls out nicely
> later). (Check the metalworking part of my website for terms...)
>
Well, I can do wire sizes and machine screws. :-)

2415. Re: Another hopeless text: spot the errors...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-11 19:16:46 UTC
From: "Watson A.Name - \"Watt Sun, the Dark Remover\"" <NOSPAM@dslextreme.com>
Message-ID: <10k6joc12v8io30@corp.supernews.com>
Source record: 23299

"Rich Grise" <null@example.net> wrote in message
news:WuH0d.875$xH1.335@trnddc03...
> On Friday 10 September 2004 09:14 am, John Woodgate did deign to grace
us
> with the following:
>
> > I read in sci.electronics.design that Tim Wescott
> > <tim@wescottnospamdesign.com> wrote (in
<10k3hdft9anqrd9@corp.supernews.
> > com>) about 'Another hopeless text: spot the errors...', on Fri, 10
Sep
> > 2004:
> >>I used to know a guy who had worked at a company that made estimator
> >>pads for log scalers -- had keys to enter all the parameters, an LCD
> >>screen, microprocessor, the whole nine yards. The first time he
went to
> >>check it with a _real_ log scaler this old coot stepped out of the
> >>shack, looked at an entire load of lumber on a truck and said
"that's
> >>about X board-feet". Kevin spent half an hour measuring and
entering
> >>and came up with the same number.
> >>
> >>Progress. Go figure.
> >
> > The old coot had probably already measured it. Old coots have a way
of
> > fixing to win.
> > --
> By golly, I guess I must be an old coot. I went to Staples to get a
> ream of 11x17 paper. All they had was a box. (10 reams per). The droid
> said that was the only way they can sell it. I said, "Don't be stupid.
> Just break open the box and get out a ream." This moron says, "Oh,
they
> don't have barcodes on the single reams, they can't scan it." I just
> grumbled at him and went up to the register, and asked the kid, "Can
> you do a price check?" - BTW, this was the same kid who had got his
> boss, who was the one who said they can't sell one ream. So, the droid
> is off somewhere, I go slide a ream out of the box, the kid prices it,
> and it's about five bucks. So I go to the droid, and ask, "Are you a
> betting man? Tell you what - let's crack that box, and if the ream is
> not marked, I'll pay you five bucks, but if it is, you gotta buy it
> for me." He didn't want to bet, but he relented, and went and got
> the same ream that I had just had scanned, but stealthily put back,

> and let me buy it. Maybe this should be a true tale of induhviduals.
>
> Cheers!
> Rich

I bought a bag of candy at the Ralph's supermarket, and as I checked out the checker couldn't scan it nor find a price on it, so she had to send a boxboy back to check the price. This took a minute, so when she rung it up, instead of 99 cents, she rang 99 items at 1 cent each. I asked her whay, and she said that they are constantly measuring their performance, so if they ring 99 items it looks like they're more productive, like they had to count them out or something like that.

Well, you ask, what does this have to do with the price of tea in China? Well, it gave me an idea. Just go back and get the price off the 2500 sheet carton and divide it by 2500. Then have them ring it up by the sheet(!) They can tell the management that they were extrremely productive and counted them all in only 10.7 minutes! And get a free break, to boot!

I figured it out and a 2500 sheet carton costs $32 so it's $.0128 a sheet. That's $6.40 a ream. But I got the prices off their website and they also show a ream of 11x17 'ledger' as $6.99. So you could save $.59 if they'll do it my way. But their BOFH website wouldn't work without cookies enabled. I'll have to delete them when I'm finished. I think that it's easier to remember 11x17 than it us to remember that it's ledger, plus it's less typing. Same with legal.

Speaking of having fun with the droids, I mailed a package to Tampa Bay, FL, this morning. I asked the postal clerk if he had hurricane insurance for it. He thought that was good for a laugh! ;-)

2416. Amateur Radio contribution on 9/11/2001

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-11 20:15:20 UTC
From: John Harper AE5X <john@ae5x.com>
Message-ID: <s1J0d.24937$bE1.12741379@news4.srv.hcvlny.cv.net>
Source record: 23300

I have a BBC audio file (17M, about 28 minutes) on amateur radio operations
in NYC my website for anyone interested.

--

John Harper AE5X
Outdoor QRP: http://www.ae5x.com

2417. Re: Is ours the most technical hobby in the world?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-11 22:00:37 UTC
From: Ken Scharf <wa2mzeNOTTHIS@bellsouth.net>
Message-ID: <BBK0d.111819$0o5.54090@bignews1.bellsouth.net>
Source record: 23302

Paul Burridge wrote:
> Hi guys,
>
> Well do you think it is? I personally can't think of any other
> passtime accessible to the individual which requires such a high
> degree of technical knowledge to succeed at. If anyone can think of
> something more complex, let's hear it!
>
> Paul
Depends. Other hobbies that require some serious skills:

Amateur Telescope Making (lets see you design AND TEST multiple optical surfaces with the reqired tolerance).

Home Foundary. Special skills required in safely handling white hot molten metal, and making sand molds.

Amateur Rocketry. (Yup this IS rocket science! Im NOT talking Estes here!)

Home building aircraft. Besides a pilots licence (to test the final product) the skill to do it right (you going to actually FLY that thing YOURSELF!).

Then there was the guy I met in college that built his own SUBMARINE! (he was a scuba diver).

BTW, I AM interrested in numbers 1 and 2, and at one time number 4 (but I havn't flown since my 10 year old kids were born).

2418. Is it possible to modify this radio? kenwood tr-7850

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-11 22:04:46 UTC
From: animalinstincts <dontbotherwithit@hotmail.com>
Message-ID: <lyK0d.34291$%m4.3101902@read2.cgocable.net>
Source record: 23301

Hi I'm a little new to this news group, have been reading through it for a few only a few weeks. I recently bought a Kenwood tr-7850 at a low price and it works great, but, it would be even better if i could use it to monitor slightly lower frequences used by fire and police. Did a thourough check of the web for out of band mods for this radio and had no success at all. Does anyone have any info on how to do this or a schematic for this radio? Thanks

--

2419. Re: Is it possible to modify this radio? Kenwood TR-7850

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-11 22:15:50 UTC
From: "G.Beat" <now9spamgb@no.comcast.spam.net.invalid>
Message-ID: <pOK0d.29834$D%.20840@attbi_s51>
Source record: 23303

"animalinstincts" <dontbotherwithit@hotmail.com> wrote in message
news:lyK0d.34291$%m4.3101902@read2.cgocable.net...
>
> Hi I'm a little new to this news group, have been reading through it for a
> few only a few weeks. I recently bought a Kenwood TR-7850 at a low price
> and
> it works great, but, it would be even better if i could use it to monitor
> the higher frequencies (150 - 160 MHz) used by fire and police.
> Did a thorough check of the web for "out of band mods" for this radio and
> had
> no success at all. Does anyone have any info on how to do this or a
> schematic for this radio? Thanks
>
> --
This was a first generation dual-band (VHF/UHF) synthesized radio. A
general coverage receiver (e.g., aviation frequencies, WX alert channels)
was not in the designer's mind. Nice radio, use it any enjoy it for what it
is. Kenwood's web site should always be your first stop:
http://www.kenwood.net/indexKenwood.cfm?do=SupportFiles

Seems like a new amateur's FAQ is: "How to modify their radio." Must come
from the current "customize your own computer" fad.

Need Kenwood parts? www.kenwoodparts.com

Dear Kenwood Customer:
For replacement Service or Instruction Manuals that are no longer available
from
Kenwood (discontinued and not listed on their web site),
please order from one of the companies listed below (Kenwood's list).

Howard W. Sams
2647 Waterfront Parkway East Dr.
Indianapolis, IN 46214-2041
(800) 428-7267
(317) 298-5566
http://www.samswebsite.com/

Hi-Manuals
P.O. Box 802
Council Bluffs, IA 51502
http://www.hi-manuals.com/

W7FG Vintage Manuals
402731 West 2155 Drive
Bartlesville, Oklahoma 74006

Telephone: 918-333-3754
Order Line: 800-807-6146
FAX: 918-774-9180 (orders only)
http://www.w7fg.com/

ManualMan
27 Walling Street
Sayreville, NJ 08872
732-238-8964
http://www.manualman.com/

==========
w9gb

2420. Re: Is ours the most technical hobby in the world?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-11 22:37:17 UTC
From: Duncan Munro <postmaster@duncanamps.com>
Message-ID: <18q7vt2djmfz$.1t9p9v0b518y6$.dlg@40tude.net>
Source record: 23304

On Sat, 11 Sep 2004 18:00:37 -0400, Ken Scharf wrote:

> Depends. Other hobbies that require some serious skills:
> [...]
> Home Foundary. Special skills required in safely handling white hot
> molten metal, and making sand molds.

With you on that one, I've made plenty of mistakes in amateur radio but
learnt a few things along the way.

Making mistakes in metal casting is not so forgiving...

--
Duncan Munro
http://amateur.duncanamps.com/
also http://metal.duncanamps.com/ !

2421. Re: Is it possible to modify this radio? Kenwood TR-7850

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-11 22:40:42 UTC
From: animalinstincts <notmyrealemail@hotmail.com>
Message-ID: <e4L0d.34296$%m4.3102378@read2.cgocable.net>
Source record: 23308

Hi w9gb thanks for the info and the quick response. I wasnt aware that this radio was capable of uhf. Not really interested in making dramatic changes and getting the aviation frequencies, mostly just want to extend the low end from 143.900 to a slightly lower ~141Mhz. Research suggests changing programming resistors on the CPU board however it seems impossible without a schematic. There are also about a zillion adjustments inside it and one of them should affect the VCO. So thats why i posted my message, not sure if someone has done this before/has any info or whether i should just forgeddaboutit.

"G.Beat" <now9spamgb@no.comcast.spam.net.invalid> wrote in message news:pOK0d.29834$D%.20840@attbi_s51...

> >

> This was a first generation dual-band (VHF/UHF) synthesized radio. A
> general coverage receiver (e.g., aviation frequencies, WX alert channels)
> was not in the designer's mind. Nice radio, use it any enjoy it for what
it
> is. Kenwood's web site should always be your first stop:
> http://www.kenwood.net/indexKenwood.cfm?do=SupportFiles
>
> Seems like a new amateur's FAQ is: "How to modify their radio." Must come
> from the current "customize your own computer" fad.
>

2422. Help me choose a tv/video capture device

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-11 22:53:15 UTC
From: sdeyoreo@hotmail.com
Message-ID: <9607k01mkt6kkbd67aj0gaql83tnokvn6p@4ax.com>
Source record: 23305

Looking fo something in uSB2. I've been looking at ratings on VideoHelp.com. It seems like someone has a problem with every device. Some picture quality is bad, some crash, some drivers blow... Anyone using anything thats works and installs good? I'm running WinXP on P4 @ 3.0 Ghz, 1Gb DDR, dual SATA drives in RAID0.

2423. Re: Is ours the most technical hobby in the world?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-11 22:54:44 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <bg07k0p9uc9vvkl68uvogtv6hkdku63f5a@4ax.com>
Source record: 23306

On Sat, 11 Sep 2004 23:37:17 +0100, Duncan Munro
<postmaster@duncanamps.com> wrote:

>On Sat, 11 Sep 2004 18:00:37 -0400, Ken Scharf wrote:
>
>> Depends. Other hobbies that require some serious skills:
>> [...]
>> Home Foundary. Special skills required in safely handling white hot
>> molten metal, and making sand molds.
>
>With you on that one, I've made plenty of mistakes in amateur radio but
>learnt a few things along the way.
>
>Making mistakes in metal casting is not so forgiving...

It doesn't make it any more technical. Or dangerous, for that matter.

--

"What is now proved was once only imagin'd." - William Blake, 1793.

2424. Re: Amateur Radio contribution on 9/11/2001

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-11 22:55:50 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <vh07k0ljg41o8lggp7uecu4an8rpr3r3u2@4ax.com>
Source record: 23307

On Sat, 11 Sep 2004 20:15:20 GMT, "John Harper AE5X" <john@ae5x.com>
wrote:

>I have a BBC audio file (17M, about 28 minutes) on amateur radio operations
>in NYC my website for anyone interested.

If it comes from the BBC., then it's probably distorted lies of one
sort or another. That's the BBC for you nowadays. :-(

--

"What is now proved was once only imagin'd." - William Blake, 1793.

2425. Re: Amateur Radio contribution on 9/11/2001

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-11 23:06:22 UTC
From: Joe McElvenney <ximac@btinternet.com>
Message-ID: <VA.0000005e.00362cc6@btinternet.com>
Source record: 23309

Hi,

> If it comes from the BBC., then it's probably distorted lies of one
> sort or another.

Surely aren't 'distorted lies', by definition, the truth?

- Joe

2426. Re: Help me choose a tv/video capture device

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-11 23:54:35 UTC
From: sdeyoreo@hotmail.com
Message-ID: <c147k05c89n8kcflben0qlg0ue45pd7nba@4ax.com>
Source record: 23310

Sorry, wrong group.
On Sat, 11 Sep 2004 18:53:15 -0400, sdeyoreo@hotmail.com wrote:

>Looking fo something in uSB2. I've been looking at ratings on
>VideoHelp.com. It seems like someone has a problem with every device.
>Some picture quality is bad, some crash, some drivers blow... Anyone
>using anything thats works and installs good? I'm running WinXP on P4
>@ 3.0 Ghz, 1Gb DDR, dual SATA drives in RAID0.

2427. Re: Is it possible to modify this radio? Kenwood TR-7850

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-12 00:22:04 UTC
From: "G.Beat" <now9spamgb@no.comcast.spam.net.invalid>
Message-ID: <LEM0d.174465$Fg5.64460@attbi_s53>
Source record: 23311

"animalinstincts" <notmyrealemail@hotmail.com> wrote in message
news:e4L0d.34296$%m4.3102378@read2.cgocable.net...
> Hi w9gb thanks for the info and the quick response. I wasnt aware that
> this
> radio was capable of uhf. Not really interested in making dramatic changes
> and getting the aviation frequencies, mostly just want to extend the low
> end
> from 143.900 to a slightly lower ~141Mhz. Research suggests changing
> programming resistors on the CPU board however it seems impossible without
> a
> schematic. There are also about a zillion adjustments inside it and one of
> them should affect the VCO. So thats why i posted my message, not sure if
> someone has done this before/has any info or whether i should just
> forgeddaboutit.
>

My goof, this is the VHF radio (2-meter) radio - early 1980s design - I
looked at this model (when new)
http://www.rigpix.com/kenwood/tr7850.htm

but purchased the TR-9130 -- which was the all-mode 2-meter mobile
http://www.rigpix.com/kenwood/tr9130.htm

I have not seen any one both with conversions on this model, of course that
was before this "mod" fad for open up the Far East radios .. meanwhile the
US radios (Motorola, GE) can alreadt do this!

w9gb

2428. Re: For women:

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-12 01:10:01 UTC
From: whoever <whoever@wherever>
Message-ID: <1c-dnd1KcfloPN7cRVn-hA@centurytel.net>
Source record: 23312
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

So how many members are there now? Is it for woman only?
Not to be rude but I wonder if it would be legal to have a group called
" AmateurRadiomen" ;)
Good luck with your new group!

Popcorn Lover wrote:

> http://groups.yahoo.com/group/AmateurRadioWomen
>
>
>

2429. Re: Amateur Radio contribution on 9/11/2001

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-12 01:39:12 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <75a7k01krn0i3ie2e5v5c54b8mfmuqdnmb@4ax.com>
Source record: 23314

On Sat, 11 Sep 2004 23:06:22 +0000 (UTC), Joe McElvenney
<ximac@btinternet.com> wrote:

>Hi,
>
>> If it comes from the BBC., then it's probably distorted lies of one
>> sort or another.
>
>
> Surely aren't 'distorted lies', by definition, the truth?

Nope. Just twisted lies.
--

"What is now proved was once only imagin'd." - William Blake, 1793.

2430. That pesky 7238 kHz CW signal

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-12 01:40:35 UTC
From: John Walton <jdwalton@comcast.net>
Message-ID: <Dd6dnWGJXrWdNd7cRVn-gA@comcast.com>
Source record: 23313

From the ARRL's saturday morning missive:

==>"INTRUDER SIGNAL" ON 40 METERS REMAINS A MYSTERY FOR NOW

An unidentified signal that's been showing up on the 40-meter phone band on or about 7238 kHz has mystified amateurs in the western US and Canada, where it's been heard frequently for the past few weeks. Although it resembles a steady carrier, a closer inspection suggests that the intruding signal actually is a series of closely spaced signals. Don Moman, VE6JY, in Edmonton, Alberta, says the signal is quite loud at his QTH.

"This signal looks a lot more interesting than it would sound--just a broad tone/hum/buzz, depending on where you tune," he said. One spectrogram from VE6JY showed perhaps a half-dozen or more discrete signals. "It's certainly loud enough out here, peaking broadly south-southwest from Edmonton," he said. Moman was using a 5-element Yagi and was hearing the signal at 10 dB over S9.

That conforms with observations reported by Bob Gonsett, W6VR, at Communications General Corp (CGC). He says engineers at the CGC lab in Fallbrook, California took a quick look at the intruder September 6 at around 2120 UTC and found "several close-spaced CW carriers--perhaps from one specially modulated transmitter, perhaps from transmitters at different locations," he reported. CGC reported the signals appeared on 7238.063, 7238.150, 7238.237 and 7238.412 kHz, with the 7238.237 kHz signal being "the strongest of the group."

While no one's sure what it is, the FCC HF Direction Finding Facility has been able to determine that it's coming from somewhere north of Prescott, Arizona, and west of Interstate 17. FCC monitoring indicates the "buzz" is centered on 7238.1 kHz with a bandwidth of about 1 kHz and spikes spaced at about 90 Hz apart.

Reports to the International Amateur Radio Union Region 2 Monitoring System indicate the signal has been heard from about 1700 to 2130 UTC, although Moman reported hearing it at around 0300 UTC and said the signal even went off the air for a few seconds while he was listening to it. Jack Roland, KE0VH, in Colorado also heard the signals for a couple of evenings this week. "Something is not right there," he remarked.

High Noon Net Manager Bill Savage, N5FLD, in Albuquerque, New Mexico said several net participants--in Nebraska, Colorado, Nebraska, Wyoming, Minnesota and Arizona--were able to hear the mystery signal.

2431. FS: 3 Spools of 36'ea. of #18 DCC Wire>Vintage w/pic

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-12 02:57:42 UTC
From: rlucch2098@aol.com
Message-ID: <20040911225742.13148.00000644@mb-m28.aol.com>
Source record: 23315

Hi All;
I have a few more rolls/sets of these for sale.
It is 3 spools of 36' ea. of above rolled on cardboard as in pic.
Price is $14 + Postage
Great for restoring older radios.
Pic:
http://www.myradioroom.com/oldwire.jpg
Tnx & 73..
Rich WA2RQY

2432. Re: Is it possible to modify this radio? kenwood tr-7850

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-12 03:34:16 UTC
From: RCM <rkmr15203@yahoo.com>
Message-ID: <4143C3B8.8070106@yahoo.com>
Source record: 23316

If you live in the U.S., most police and fire stuff is above 2 meters....150 to 160.

animalinstincts wrote:

> Hi I'm a little new to this news group, have been reading through it for a
> few only a few weeks. I recently bought a Kenwood tr-7850 at a low price and
> it works great, but, it would be even better if i could use it to monitor
> slightly lower frequences used by fire and police. Did a thourough check of
> the web for out of band mods for this radio and had no success at all. Does
> anyone have any info on how to do this or a schematic for this radio? Thanks
>

2433. Re: Is ours the most technical hobby in the world?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-12 04:31:06 UTC
From: rmonagha@engr.smu.edu
Message-ID: <ci0jeaoso1@blaze.seas.smu.edu>
Source record: 23317

yes, Andrew, thanks for that note and some very good points...

we recently had our annual regional Hamcom 2004 convention, at which I had the chance to catch local microwave and antennas guru Kent Britain's WA5VJB's seminar on microwaves modifications. My favorite was a obsolete cell phone 3 watt output chip that does 18 watts nicely on 13.8 Vdc ;-) All the wi-fi and garage door conversions into microwave transceivers, and the police radar detectors into microwave setups. And how about some of the simple conversions of TV tuners into spectrum analyzer projects? ;-) And the cable TV modules that do all sorts of jobs from preamps to power amps ;-) So I just joined the North Tx Microwave Society to expand beyond the satellite and ATV stuff we are doing now into new areas for our club ;-)

so thanks to computer and phone co. surplus, we may have a second generation of surplus conversions to rival those of the 1950s and 1960s for military surplus to amateur radio uses?

grins bobm

--
****
* Robert Monaghan POB 752182 Southern Methodist Univ. Dallas Tx 75275 *
**********Standard Disclaimers Apply**********

2434. Re: That pesky 7238 kHz CW signal

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-12 05:23:28 UTC
From: Doug Smith W9WI <w9wi@invalid.invalid>
Message-ID: <4143DD50.5090206@invalid.invalid>
Source record: 23318

John Walton wrote:
> signals. "It's certainly loud enough out here, peaking broadly
> south-southwest from Edmonton," he said. Moman was using a 5-element Yagi

> While no one's sure what it is, the FCC HF Direction Finding Facility has
> been able to determine that it's coming from somewhere north of Prescott,
> Arizona, and west of Interstate 17. FCC monitoring indicates the "buzz" is

At the risk of sounding like the conspiracy theorist I'm not...

those directions do point at Area 51<grin>...
--
Doug Smith W9WI
Pleasant View (Nashville), TN EM66
http://www.w9wi.com

2435. Re: Is ours the most technical hobby in the world?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-12 09:21:52 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2qij6oFvkuq5U1@uni-berlin.de>
Source record: 23319

Always remember to put your trouser leg _OUTSIDE_
your wellies and be _DAMN_ sure that your sand mould
is dry. A spider or two down the tubes causes an explosive
splash-back!

"Duncan Munro" <postmaster@duncanamps.com> wrote in message
news:18q7vt2djmfz$.1t9p9v0b518y6$.dlg@40tude.net...
> With you on that one, I've made plenty of mistakes in amateur radio but
> learnt a few things along the way.
> Making mistakes in metal casting is not so forgiving...

2436. Data for MRA 280 UHF power transistor (50W 600-1000MHz)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-12 09:53:37 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <i478k0p5tprm2ht2sgs34pv9sja2fg0h6b@4ax.com>
Source record: 23320

Hi

any idea where I could find data for MRA-280 UHF power transistor (48V supply voltage)? Need only data to see if it is possible to use on 1296MHz band. Beleive it could be customers marked device

Hope to hear from you

Jan-Martin

J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

2437. Re: Is ours the most technical hobby in the world?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-12 10:19:54 UTC
From: Nimrod <mighty@hunter.com>
Message-ID: <2qim65Fv8e29U1@uni-berlin.de>
Source record: 23321

"Airy R. Bean" <me@privacy.net> wrote in message
news:2qij6oFvkuq5U1@uni-berlin.de...
> Always remember to put your trouser leg _OUTSIDE_
> your wellies and be _DAMN_ sure that your sand mould
> is dry. A spider or two down the tubes causes an explosive
> splash-back!
>

Is that how you fettle castings?

Does the Welly advice hold for your other pastimes?

2438. Re: Is ours the most technical hobby in the world?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-12 11:03:08 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <o6b8k0db1a6bh5qo2njhu79chfatv7d81s@4ax.com>
Source record: 23322

On 11 Sep 2004 23:31:06 -0500, rmonagha@engr.smu.edu (Bob Monaghan)
wrote:

>we recently had our annual regional Hamcom 2004 convention, at which I had
>the chance to catch local microwave and antennas guru Kent Britain's
>WA5VJB's seminar on microwaves modifications. My favorite was a obsolete
>cell phone 3 watt output chip that does 18 watts nicely on 13.8 Vdc ;-)

You got a part number for that chip, Bob?
--

"What is now proved was once only imagin'd." - William Blake, 1793.

2439. WTB: Collins 32S3 mechanical filter

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-12 13:00:22 UTC
From: k9sqg@aol.com
Message-ID: <20040912090022.04552.00002232@mb-m27.aol.com>
Source record: 23323

Part number is 526-9427-00. Prefer NOS but will consider one that is in new condition. Thanks for reading the posting.

73s,

Evan

2440. Intermediate Licence project

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-12 14:46:37 UTC
From: S C <cromie@onetel.com>
Message-ID: <414461bc@212.67.96.135>
Source record: 23324

I would be grateful if anyone could suggest or provide me with a circuit diagram for a Homebrew ATU with SWR meter or circuit diagrans for these seperately.

I hope to build one for use on the HF bands.

Many Thanks for your help

M3GBQ

2441. Re: For women:

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-12 16:17:13 UTC
From: CW <"no adddress"@spam>
Message-ID: <FI6dncefyOQU69ncRVn-gw@comcast.com>
Source record: 23325
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

"whoever" <whoever@wherever> wrote in message
news:1c-dnd1KcfloPN7cRVn-hA@centurytel.net...
> Not to be rude but I wonder if it would be legal to have a group called
> " AmateurRadiomen" ;)
Of course. Why wouldn't it be?

2442. Re: Intermediate Licence project

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-12 16:20:30 UTC
From: Brian Reay <brian.reay@bigfoot.com>
Message-ID: <2qjb9vFv45aoU1@uni-berlin.de>
Source record: 23326

"S C" <cromie@onetel.com> wrote in message news:414461bc@212.67.96.135...
> I would be grateful if anyone could suggest or provide me with a circuit
> diagram for a Homebrew ATU with SWR meter or circuit diagrans for these
> seperately.
>
> I hope to build one for use on the HF bands.
>
> Many Thanks for your help
>
> M3GBQ

Lots of designs around, try this one:

http://www.alg.demon.co.uk/radio/qrp/port_atu.htm

You may find the study material you can download from my website useful when working for you 2E.

Good luck with your studies & 73

--
Brian Reay
www.g8osn.org.uk
www.amateurradiotraining.org.uk
FP#898

2443. Re: Intermediate Licence project

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-12 17:02:04 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2qjdu1F10fvu7U1@uni-berlin.de>
Source record: 23327

"M3"? You'd be better off to post your question in uk.rec.radio.cb.

This is a NG for Radio Hams, of which company you are not a member.

"S C" <cromie@onetel.com> wrote in message news:414461bc@212.67.96.135...
> I would be grateful if anyone could suggest or provide me with a circuit
> diagram for a Homebrew ATU with SWR meter or circuit diagrans for these
> seperately.
>
> I hope to build one for use on the HF bands.
>
> Many Thanks for your help
>
> M3GBQ
>
>

2444. Re: Intermediate Licence project

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-12 17:17:01 UTC
From: "Harold E. Johnson" <W4ZCB@mchsi.com>
Message-ID: <hw%0d.30986$MQ5.28178@attbi_s52>
Source record: 23328

"Airy R. Bean" <me@privacy.net> wrote in message
news:2qjdu1F10fvu7U1@uni-berlin.de...
> "M3"? You'd be better off to post your question in uk.rec.radio.cb.
>
> This is a NG for Radio Hams, of which company you are not a member.
>
> "S C" <cromie@onetel.com> wrote in message

WOW! What a stupid response Bean. I hope you respond in like vein when actually speaking to real live people, so they will have an opportunity to knock you on your ass which you so obviously deserve.

W4ZCB

2445. Re: Intermediate Licence project

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-12 18:53:59 UTC
From: Highland Ham <abcgm0csz.kn6whxyz@abcntlworldxyz.com>
Message-ID: <bX01d.179$AV2.151@newsfe5-gui.ntli.net>
Source record: 23329

> I would be grateful if anyone could suggest or provide me with a circuit
> diagram for a Homebrew ATU with SWR meter or circuit diagrans for these
> seperately.
==========
On the assumption that you would use this equipment once you have upgraded to the Intermediate Licence ,the ATU's power rating is to be in excess of 50 Watts . Perhaps you can state to which type of feeder the AMU (Antenna Matching Unit) is to be connected ; a coax feeder or a balanced feeder.

Frank GM0CSZ / KN6WH

2446. Re: For women:

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-12 20:19:30 UTC
From: Popcorn Lover <popcorn@N0T-SPAM.COM>
Message-ID: <Xns956291CFC53F6popcornN0TSPAMCOM@206.124.0.13>
Source record: 23330
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

whoever <whoever@wherever> wrote :

> So how many members are there now? Is it for woman only?
> Not to be rude but I wonder if it would be legal to have a group called
> " AmateurRadiomen" ;)

Why wouldn't it be? We have the Clear Creek Sportsman's Club here.

--
- Popcorn Lover
If you love popcorn too, there are no popcorn groups on usenet but
there IS one in Yahoo Groups:
http://groups.yahoo.com/group/Popcorn_Lovers
The internet's first-ever-in-the-world popcorn group!
Share the word on making great popcorn - come join us!

2447. modify an AN tuner part 3

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-12 21:11:32 UTC
From: Tony <---NO_._SPAM---bincit>
Message-ID: <ci2e02$ce2$1@le1.cs.unibo.it>
Source record: 23331

I'm still searching for another fast and simple solution to push my tuner to 4 o 5 Khz.
What do you think about modifing the local oscillator (whe you found it in the pcb)? Due to high frequencies, it is probably a simple air coil. So I can insert ferrite rod inside it to rise up inductance (and lower the freq)... or i can cut off a spire....
Or modifing the capacitance of the tuning capacitor? I can add another cap in parallel with it, exploing that parallel caps drop down the capacitance...

2448. 24 volt power supply schematic needed

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-12 21:54:30 UTC
From: Craig <clark979@bellsouth.net>
Message-ID: <Lz31d.134977$_h.72448@bignews3.bellsouth.net>
Source record: 23332

I am wanting to build a 24 volt power supply for a project I am working on. I was wanting to know if anyone would have a schematic for such a power supply. The power supply needs to be atleast 25 amp. If you can help me please send me an email to N5XNQ2003@yahoo.com

Thank you,

Craig Clark - N5XNQ
http://home.bellsouth.net/p/PWP-n5xnq

2449. Re: For women:

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-12 22:42:42 UTC
From: n9vu@yahoo.com
Message-ID: <850c5b9d.0409121442.1494ebf8@posting.google.com>
Source record: 23333
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

"CW" <no adddress@spam free.com> wrote in message
news:<FI6dncefyOQU69ncRVn-gw@comcast.com>...
> "whoever" <whoever@wherever> wrote in message
> news:1c-dnd1KcfloPN7cRVn-hA@centurytel.net...
> > Not to be rude but I wonder if it would be legal to have a group called
> > " AmateurRadiomen" ;)
> Of course. Why wouldn't it be?

Yes, and then watch the lawsuits pour in. This is just like black
groups that tout for blacks only. Try a white only group. Same
thing. Just an example, NOT a racist remark, I hope.

2450. Re: 24 volt power supply schematic needed

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-12 23:06:24 UTC
From: jgboyles@aol.com
Message-ID: <20040912190624.27979.00000747@mb-m02.aol.com>
Source record: 23334

>I am wanting to build a 24 volt power supply. The power supply needs to be at least 25 amp.

Hi Craig, I am sure you know you are trying to build a 625 watt power supply. As such, a Linear Power Supply will be large, heavy, not to mention expensive. Unless you have a lot of high volt-amp transformers, 100,000 mfd. Caps as well as big pass transistors with heat sinks in your junk box, this will be expensive. If you do have all this stuff, then use any Linear power supply schematic.
A possibly better soulition would be a Switching Power Supply. These are not easily built because of the difficulity in obtaining the components. Try taking a look at Lambda Power Supplies, and look at Ebay selling Lambda stuff at a good price.

73 Gary N4AST

2451. Re: 24 volt power supply schematic needed

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-13 01:16:24 UTC
From: "G.Beat" <now9spamgb@no.comcast.spam.net.invalid>
Message-ID: <Dx61d.180805$mD.90152@attbi_s02>
Source record: 23335

"Craig" <clark979@bellsouth.net> wrote in message
news:Lz31d.134977$_h.72448@bignews3.bellsouth.net...
>I am wanting to build a 24 volt power supply for a project I am working on.
> I was wanting to know if anyone would have a schematic for such a power
> supply. The power supply needs to be atleast 25 amp. If you can help me
> please send me an email to N5XNQ2003@yahoo.com
>
> Thank you,
>
> Craig Clark - N5XNQ
> http://home.bellsouth.net/p/PWP-n5xnq
>

Craig -

The ARRL Handbook has featured a "How To" 28 / 24 volt high current power supply in every ARRL Handbook since 1989 - yes I checked its even in the 2004 version. Mark Wilson, AA2Z built the first one at ARRL labs in 1980s.

Gary makes very good points about linear vs. switching power supplies.

If you wish to build a linear power supply, it is fairly straight forward. You will need a large transformer than has a secondary in the range of 30 to 36 volts AC at 25 amps.

Heat sink design and size (heat transfer of 625 watts - which is not a small issue -- think small kitchen cooking appliances)

Some reference sites for building a linear power supply. You can adopt 13.8 VDC designs by remembering that the voltage is double -- and sizing for current(amperage). The LM723 serves as the "reference voltage" in these designs. A broken power supply (bad transformer) is a great start - case, heat sink, etc.

David Metz's theory and building hints
http://www.seits.org/features/pwrsup.htm

KBT DC supplies
http://www.kbt-dc-supplies.com/index.php

Astron schematics (largely 13.8 vdc, but may have a 24 vdc one in listings)
http://www.repeater-builder.com/rbtip/astron-index.html

SWITCH MODE SUPPLIES
http://www.hills2.u-net.com/electron/smps.htm

http://www.geocities.com/CapeCanaveral/Lab/9643/

That should get you started!

Greg, w9gb

2452. Re: 24 volt power supply schematic needed

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-13 01:19:16 UTC
From: "G.Beat" <now9spamgb@no.comcast.spam.net.invalid>
Message-ID: <nA61d.423965$%_6.385900@attbi_s01>
Source record: 23336

"JGBOYLES" <jgboyles@aol.com> wrote in message
news:20040912190624.27979.00000747@mb-m02.aol.com...
> >I am wanting to build a 24 volt power supply. The power supply needs to
> >be at
> least 25 amp.
>
> Hi Craig, I am sure you know you are trying to build a 625 watt power
> supply.
> As such, a Linear Power Supply will be large, heavy, not to mention
> expensive.
> Unless you have a lot of high volt-amp transformers, 100,000 mfd. Caps as
> well
> as big pass transistors with heat sinks in your junk box, this will be
> expensive. If you do have all this stuff, then use any Linear power
> supply
> schematic.
> A possibly better soulition would be a Switching Power Supply. These are
> not
> easily built because of the difficulity in obtaining the components. Try
> taking a look at Lambda Power Supplies, and look at Ebay selling Lambda
> stuff
> at a good price.
>
> 73 Gary N4AST

Gary -

Here is what Craig is looking for -- power supply for a ATV solid-state
final amplfier

w9gb
==========
"I am looking for 24 volt dc power supply that can handle a min of 18 amps.
This will be used on the new 200 watt ATV final amp. If you have one your
looking to get rid of please drop me an email with the details.
73's
Craig N5XNQ

2453. Re: Intermediate Licence project

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-13 01:26:04 UTC
From: darleyput@hotmail.com
Message-ID: <ci2svn$o7r$1@newsg3.svr.pol.co.uk>
Source record: 23337

take neigh notice yon M3.
These bitter old porkers, there only jealous of your youth.

They were all unlicensed CB'ers once, they just won't admit it. Airy still has plenty of CB buddies. He soon shuts up when you remind him of his 4x4 driving country side wreaking mates...

2454. Re: Is ours the most technical hobby in the world?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-13 02:37:45 UTC
From: rmonagha@engr.smu.edu
Message-ID: <ci315p$n23$1@blaze.seas.smu.edu>
Source record: 23338

nope, sorry, but it was a more or less typical example of some of Kent Britain's and others discoveries of easy ways to get onto microwave bands. Raising the voltage on these chips does great things to the power output, as that E^2/R goes up fast as E goes up a little ;-)

Another example was an amplifier with many microwave modules, most of the power was used to produce a linear (digital compatible) output; junk that overhead, and the power went up from 10 watts or so to over 100 watts ;-)

You might try emailing the North Texas Microwave Society or Kent directly? http://www.ntms.org/ - we are having a major conference in October I hope to attend, so I may have more notes there ;-) Kent is also the author of the "cheap yagi" designs from VHF-CQ and other online sources.

sadly, there was a second seminar at Hamcom 2004 on resources for microwave wanna-bees. The first were a series of older books on microwaves and test equipment, with the sensible observation that most of the affordable test gear being surplused now is described in use in these older books ;-) The second was a series of newsletters and publications, some in German/English, from RSGB, and ARRL on microwaves operations etc.

Some of these were described and seen to be quite pricey for the amount of articles therein ;-(The NTMS has evidently made an effort to build up a collection of articles and resources related to microwaves, rather than have each member try to duplicate these costly and hard to find references.

I am not seeing a lot in the way of homebrew microwave construction or conversion articles, given some of the relatively easy projects I have seen described at these seminars and in some ARRL materials I have etc.? So the conference may turn up some more resources, I hope ;-)

Part of the motivation here is we are trying to "inherit" some big roof-top microwave satellite dishes from our engineering school as these get obsoleted as we go online with streaming video on demand. Our club's roof access port is only ten feet from the bigger dish ;-) It will cost the school major $ to take this stuff down, so it would save $ to let us use it - and might provide lots of useful hands-on microwave experience for some of our future graduates. That's my argument, anyway ;-)

If anybody knows of some microwave homebrew resource and project pages, let me know!

regards bobm
--
****
* Robert Monaghan POB 752182 Southern Methodist Univ. Dallas Tx 75275 *

**********Standard Disclaimers Apply**********

2455. FA:Heathkit Variable voltage bench power supply

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-13 03:40:00 UTC
From: kf5oj1@bellsouth.net
Message-ID: <4145166f.6882312@news.lig.bellsouth.net>
Source record: 23339

Heathkit IP-2728 variable voltage/current supply. No reserve and reasonable shipping. Please see at:

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=5720246098

2456. Re: 24 volt power supply schematic needed

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-13 05:12:10 UTC
From: eas90168@aol.com
Message-ID: <4b031b96.0409122112.4e8fa296@posting.google.com>
Source record: 23340

There is a 28 volt 10Amp power supply in 2004 ARRL handbook. See
pages 11.36 through 11.39. It should be a simple matter of using a
higher current transformer, rectifier, and additionall 2N3055 pass
transistors for more current, and a minor adjustment of the voltage
adjustment potentiometer to lower the voltage to 24 volts. The
described power supply uses a LM-723 and a LM-317L voltage regulator.
It features current foldback in case the output is shorted.

Eric N7DLV

"Craig" <clark979@bellsouth.net> wrote in message
news:<Lz31d.134977$_h.72448@bignews3.bellsouth.net>...
> I am wanting to build a 24 volt power supply for a project I am working on.
> I was wanting to know if anyone would have a schematic for such a power
> supply. The power supply needs to be atleast 25 amp. If you can help me
> please send me an email to N5XNQ2003@yahoo.com
>
> Thank you,
>
> Craig Clark - N5XNQ
> http://home.bellsouth.net/p/PWP-n5xnq

2457. Re: 24 volt power supply schematic needed

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-13 06:55:16 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <d1eak0d4c586hh8ske81no1bjbs7v4e8p7@4ax.com>
Source record: 23341

On Sun, 12 Sep 2004 16:54:30 -0500, "Craig" <clark979@bellsouth.net>
wrote:

>I am wanting to build a 24 volt power supply for a project I am working on.
>I was wanting to know if anyone would have a schematic for such a power
>supply. The power supply needs to be atleast 25 amp.

From other postings it appears that you need a power supply for an ATV
transmitter (repeater?), one should note that ATV transmitters are
usually operated at nearly constant duty (and FM ATV transmitters
additionally at constant load), while typically amateurs transmitters
are operated at (much) less than 50 % duty cycle. I the ATV power
supply, the temperature balance will be reached during each operation
cycle and in the interest of reliable operation, this temperature
should be as low as possible.

Thus, when looking for various designs in the amateur literature,
select one with rated capacity well above the transmitter requirement.
Use larger heat sinks than specified or use a fan. Some
overtemperature protection is also needed, especially if a fan is used
and it fails.

The 24 V 10 A design in the ARRL Handbook is a good starting point. It
uses four 2N3055 series pass transistors, thus 2.5 A/transistor. Even
at full load, the average voltage drop across the transistor could be
8 V, so each individual series pass transistor (and heatsink) is
required to dissipate 20 W. These are quite reasonable figures for the
2N3055.

Upgrading this to 25A should require a larger transformer, capacitor
and rectifier. Ten series pass transistors with larger heatsinks
should keep the individual transistor loading at the same level.The
short circuit measurement resistor value should be reduced.

The worst case current gain for the 2N3055 is specified as 20 @ 4A, so
the total base current for the ten 2N3055 would be well below 1.25 A,
which the single 2N3055 driver could well handle and still assuming
hfe=20, the uA723 would have to supply 63 mA, well within
specifications, however, the power dissipation might be a problem.

Those are worst case specifications for these transistors at larger
currents, but looking at the Motorola 2N3055 transistor, the typical
hfe=50 at 2.5 A at room temperatures or above, thus the total base
current for the ten 2N3055 would be 500 mA and at that current the
single driver 2N3055 will have a hfe > 100 at or above room
temperatures, thus the uA723 would have to supply 5 mA and there would

not be any power dissipation issues.

Of cause, when using typical values (instead of worst case values) to build a one-off project, one should verify by measurement that the typical values apply. This is specially important when "no-name" components are used.

Using larger storage capacitors than specified will reduce the voltage drop during each cycle, thus a slightly lower secondary voltage can be used, which drops the total power dissipation.

Paul OH3LWR

2458. Re: modify an AN tuner part 3

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-13 10:39:48 UTC
From: Peter Parker <parkerp@NOSPAMalphalink.com.au>
Message-ID: <4145773c$1@news.alphalink.com.au>
Source record: 23342

"Tony" <---NO_._SPAM---bincit[NO_-_SPAM]@cs.unibo.it> wrote in message
news:ci2e02$ce2$1@le1.cs.unibo.it...
> I'm still searching for another fast and simple solution to push my tuner
to
> 4 o 5 Khz.

I assume you mean MHz.

> What do you think about modifing the local oscillator (whe you found it in
> the pcb)? Due to high frequencies, it is probably a simple air coil. So I
> can insert ferrite rod inside it to rise up inductance (and lower the
> freq)... or i can cut off a spire....
> Or modifing the capacitance of the tuning capacitor? I can add another cap
> in parallel with it, exploing that parallel caps drop down the
> capacitance...

It might work, but sensitivity will be poor. As you go up in frequency
band noise drops, so you'll need more gain. Also AM receivers are designed
mainly for strong local signals so might not be particularly sensitive to
start with.

Stick with the converter idea.

Peter

>
>

2459. Re: Intermediate Licence project

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-13 10:44:18 UTC
From: Peter Parker <parkerp@NOSPAMalphalink.com.au>
Message-ID: <4145784a@news.alphalink.com.au>
Source record: 23343

"S C" <cromie@onetel.com> wrote in message news:414461bc@212.67.96.135...
> I would be grateful if anyone could suggest or provide me with a circuit
> diagram for a Homebrew ATU with SWR meter or circuit diagrans for these
> seperately.

The simplest ATU is an L-match. Comprises a coil and a capacitor. Explain that it is useful for matching high-impedence end fed wires approx half wavelength long to 50 ohm and you should pass.

On the SWR meter, the cheapest way you can build something that does a similar job is to build a resistive bridge (check if this is acceptable first). This requires a meter movement a diode or two and a handful of resistors and capacitors. There is no coil winding or toroids. The big benefit of this is that you can tune up without putting a signal to air as you would with an SWR bridge. They are also excellent for low power transmitters as they are more sensitive than many SWR meters (particularly on the lower HF range).

73, Peter VK3YE

2460. Re: Is ours the most technical hobby in the world?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-13 11:21:20 UTC
From: wolfbat359@mindspring.com
Message-ID: <b9eb3efe.0409130321.2d46f5e@posting.google.com>
Source record: 23344

rmonagha@engr.smu.edu (Bob Monaghan) wrote in message
news:<chr6iomhj1@blaze.seas.smu.edu>...
> from http://dictionary.reference.com/search?q=robot
>
> A mechanical device that sometimes resembles a human and is capable of
> performing a variety of often complex human tasks on command or by being
> programmed in advance.
>
> A machine or device that operates automatically or by remote control.
> endquote:
>
> Depends on your definition and viewpoint; sad to say, virtually all the
> world's working robots in factories bear little resemblance to humans
> (other than the demo walking robot from Japan, I guess? ;-0)
>
> We had an IEEE sponsored contest to build software for battlefield robots
> some years ago (late 1980s IIRC?). End up looking like a video game, which
> is what the students wanted to build anyway. ;-)
>
> I'm recording a 2 hour PBS program on videogame revolution tonight, so I
> suspect it will be deja vu. However, Tom Clancy, the noted author of Red
> October etc., made a point when on campus last year that the military is
> using videogames corp. for training, and that the years of hand-eye
> coordination training from gaming was a big plus in preparing young men
> and women to utilize incredibly complex systems with videogame style
> interfaces.
>
> Personally, I wouldn't _want_ an autonomous battlefield robot without
> using some human interaction in the loop. No sense making the term "killer
> software bugs" come true ;-)
>
> grins bobm

Well, it looks, at current Technological development, that I will
escape this planet without being stalked by killer Robots! However
the flies may be in danger!:

http://www.newscientist.com/news/news.jsp?id=ns99996366

http://www.ias.uwe.ac.uk/mission.htm

http://www.gastrobots.com

2461. Re: 24 volt power supply schematic needed

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-13 12:36:04 UTC
From: "G.Beat" <now9spamgb@no.comcast.spam.net.invalid>
Message-ID: <Uug1d.427800$%_6.372572@attbi_s01>
Source record: 23345

"Paul Keinanen" <keinanen@sci.fi> wrote in message
news:d1eak0d4c586hh8ske81no1bjbs7v4e8p7@4ax.com...
> On Sun, 12 Sep 2004 16:54:30 -0500, "Craig" <clark979@bellsouth.net>
> wrote:
>
>>I am wanting to build a 24 volt power supply for a project I am working
>>on.
>>I was wanting to know if anyone would have a schematic for such a power
>>supply. The power supply needs to be atleast 25 amp.
>
> From other postings it appears that you need a power supply for an ATV
> transmitter (repeater?), one should note that ATV transmitters are
> usually operated at nearly constant duty (and FM ATV transmitters
> additionally at constant load), while typically amateurs transmitters
> are operated at (much) less than 50 % duty cycle. I the ATV power
> supply, the temperature balance will be reached during each operation
> cycle and in the interest of reliable operation, this temperature
> should be as low as possible.
>
> Thus, when looking for various designs in the amateur literature,
> select one with rated capacity well above the transmitter requirement.
> Use larger heat sinks than specified or use a fan. Some
> overtemperature protection is also needed, especially if a fan is used
> and it fails.
>
> The 24 V 10 A design in the ARRL Handbook is a good starting point. It
> uses four 2N3055 series pass transistors, thus 2.5 A/transistor. Even
> at full load, the average voltage drop across the transistor could be
> 8 V, so each individual series pass transistor (and heatsink) is
> required to dissipate 20 W. These are quite reasonable figures for the
> 2N3055.
>
> Upgrading this to 25A should require a larger transformer, capacitor
> and rectifier. Ten series pass transistors with larger heatsinks
> should keep the individual transistor loading at the same level.The
> short circuit measurement resistor value should be reduced.
>
> The worst case current gain for the 2N3055 is specified as 20 @ 4A, so
> the total base current for the ten 2N3055 would be well below 1.25 A,
> which the single 2N3055 driver could well handle and still assuming
> hfe=20, the uA723 would have to supply 63 mA, well within
> specifications, however, the power dissipation might be a problem.
>
> Those are worst case specifications for these transistors at larger

> currents, but looking at the Motorola 2N3055 transistor, the typical
> hfe=50 at 2.5 A at room temperatures or above, thus the total base
> current for the ten 2N3055 would be 500 mA and at that current the
> single driver 2N3055 will have a hfe > 100 at or above room
> temperatures, thus the uA723 would have to supply 5 mA and there would
> not be any power dissipation issues.
>
> Of cause, when using typical values (instead of worst case values) to
> build a one-off project, one should verify by measurement that the
> typical values apply. This is specially important when "no-name"
> components are used.
>
> Using larger storage capacitors than specified will reduce the voltage
> drop during each cycle, thus a slightly lower secondary voltage can be
> used, which drops the total power dissipation.
>
> Paul OH3LWR
>

Craig -

Paul and Eric and provided a good background on how to adopt the ARRL
design.
You can substitute the 2N3771 transistor for the common 2N3055 pass
transistor (this is what Astron has done on many of their latest models).

Greg
w9gb

2462. Re: Intermediate Licence project

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-13 16:29:22 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2qm0d6Fvo8tcU1@uni-berlin.de>
Source record: 23346

It is not a stupid response at all. Far from it; it is a response that
stands for the maintenance of standards in Ham Radio. The M3/CB
Fools' Licence here in Britland is an advanced CB licence, but it
is not a Ham Radio licence by any stretch of the imagination.

CB Radio is like the cellphone - a social communications facility.

Ham Radio is a technical pursuit.

I note your leaning towards offering violence against those with
whom you disagree. Such behaviour is expected from those who
are CBers or CBers-Masquerading-As-Radio-Hams. It is not
expected from _REAL_ Radio Hams who have traditions of
international gentlemanliness.

"Harold E. Johnson" <W4ZCB@mchsi.com> wrote in message
news:hw%0d.30986$MQ5.28178@attbi_s52...
>
> "Airy R. Bean" <me@privacy.net> wrote in message
> news:2qjdu1F10fvu7U1@uni-berlin.de...
> > "M3"? You'd be better off to post your question in uk.rec.radio.cb.
> >
> > This is a NG for Radio Hams, of which company you are not a member.
> >
> > "S C" <cromie@onetel.com> wrote in message
>
> WOW! What a stupid response Bean. I hope you respond in like vein when
> actually speaking to real live people, so they will have an opportunity to
> knock you on your ass which you so obviously deserve.
>
> W4ZCB
>
>

2463. Re: 24 volt power supply schematic needed

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-13 20:10:03 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <62sbk05j0o2vgip2d4k6gvu7dsci0bo0h8@4ax.com>
Source record: 23347

On Mon, 13 Sep 2004 12:36:04 GMT, "G.Beat"
<now9spamgb@no.comcast.spam.net.invalid> wrote:

>Paul and Eric and provided a good background on how to adopt the ARRL
>design.
>You can substitute the 2N3771 transistor for the common 2N3055 pass
>transistor (this is what Astron has done on many of their latest models).

This suggestion makes sense for low voltage (5-12 V) high current
power supplies, since the worst case current gain (15) has been
specified for Ic=15 A and in general, the typical current gains are
better at very large currents than with 2N3055. Also the Vbe and
Vce(sat) voltages are lower at similar collector currents, thus, the
capacitor voltage can be slightly lower. From the current handling
point of view, the number of devices could be reduced. However, the
power dissipation would have to be checked, although the junction to
case thermal resistance is smaller, this does not help the heatsink
very much.

However, the ARRL 24 V supply uses only 2.5 A/transistor, so the
current gain and Vbe and Vce(sat) are not really an issue, but the
power dissipation issues are much worse on 24 V than on 12 V. The
power dissipation may still require that ten 2N3771 are used, which
are usually a bit more expensive than ten 2N2055 transistors :-).

Please note that the maximum Vce for 2N3771 is only 40 V and since the
capacitor voltage can exceed 40 V and in case of a short circuit, the
emitter is close to 0 V, the Vce could be exceeded. At least use the
2N3772 for the 24 V supply, since the maximum Vce is 60 V. The 2N3055
is also specified for Vce=60 V.

Paul OH3LWR

2464. Re: 24 volt power supply schematic needed

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-13 20:50:08 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <hn1ck01504t0to6rf0r2rj4nglh7c0bv2o@4ax.com>
Source record: 23248

On Mon, 13 Sep 2004 23:10:03 +0300, Paul Keinanen <keinanen@sci.fi>
wrote:

>On Mon, 13 Sep 2004 12:36:04 GMT, "G.Beat"
><now9spamgb@no.comcast.spam.net.invalid> wrote:
>
>>Paul and Eric and provided a good background on how to adopt the ARRL
>>design.
>>You can substitute the 2N3771 transistor for the common 2N3055 pass
>>transistor (this is what Astron has done on many of their latest models).
>
>This suggestion makes sense for low voltage (5-12 V) high current
>power supplies, since the worst case current gain (15) has been
>specified for Ic=15 A and in general, the typical current gains are
>better at very large currents than with 2N3055. Also the Vbe and
>Vce(sat) voltages are lower at similar collector currents, thus, the
>capacitor voltage can be slightly lower. From the current handling
>point of view, the number of devices could be reduced. However, the
>power dissipation would have to be checked, although the junction to
>case thermal resistance is smaller, this does not help the heatsink
>very much.
>
>However, the ARRL 24 V supply uses only 2.5 A/transistor, so the
>current gain and Vbe and Vce(sat) are not really an issue, but the
>power dissipation issues are much worse on 24 V than on 12 V. The
>power dissipation may still require that ten 2N3771 are used, which
>are usually a bit more expensive than ten 2N2055 transistors :-).
>
>Please note that the maximum Vce for 2N3771 is only 40 V and since the
>capacitor voltage can exceed 40 V and in case of a short circuit, the
>emitter is close to 0 V, the Vce could be exceeded. At least use the
>2N3772 for the 24 V supply, since the maximum Vce is 60 V. The 2N3055
>is also specified for Vce=60 V.
>
>Paul OH3LWR
>
I suppose it is to be used for a linear amplifier, and then it is a
not a good idea to use stabilized voltage. It might have been needed
for 14V, although Atlas 210-X was operated without - with a varying
voltage between 11-16V, but is not the same problem for 24V.
With maximum voltage of +32V the output may drop down towards 24V, and
no problem at all - apart from setting a limit for the power input

73
Jan-Martin

LA8AK

J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

2465. Re: Intermediate Licence project

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-13 21:10:24 UTC
From: microwaves@blueyonder.co.uk
Message-ID: <41470b89.216396641@news.blueyonder.co.uk>
Source record: 23249

On Sun, 12 Sep 2004 17:17:01 GMT, "Harold E. Johnson"
<W4ZCB@mchsi.com> wrote:

>
>"Airy R. Bean" <me@privacy.net> wrote in message
>news:2qjdu1F10fvu7U1@uni-berlin.de...
>> "M3"? You'd be better off to post your question in uk.rec.radio.cb.
>>
>> This is a NG for Radio Hams, of which company you are not a member.
>>
>> "S C" <cromie@onetel.com> wrote in message
>
>WOW! What a stupid response Bean. I hope you respond in like vein when
>actually speaking to real live people, so they will have an opportunity to
>knock you on your ass which you so obviously deserve.
>
>W4ZCB

So Airy R Bean finally infested this newsgroup as well !
I only see his posts if they are quoted in others, since most of us on
the uk.radio.amateur newsgroup killfiled him long ago.

Just ignore him. He is really Gareth Alun Evans of Chippenham England.
His callsign is G4SDW and you can find his address in the Callbook if
you'd like to send him a greetings card.

Now that will bring a torrent of abuse from him ... just wait and see!

Peter, G3PHO

2466. Re: Intermediate Licence project

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-13 21:11:12 UTC
From: microwaves@blueyonder.co.uk
Message-ID: <41480cc0.216707218@news.blueyonder.co.uk>
Source record: 23250

On Mon, 13 Sep 2004 02:26:04 +0100, <darleyput@hotmail.com> wrote:

>They were all unlicensed CB'ers once, they just won't admit it.

Oh no they were not!

2467. Wattmeter Location

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-13 21:21:37 UTC
From: jgboyles@aol.com
Message-ID: <20040913172137.22107.00003471@mb-m07.aol.com>
Source record: 23251

Hi,
I am contemplating a pep reading wattmeter so I can check the output of my HB amplifier. Consequently, I am putting it right on the output of the amp. The output of the amp should always see 50 ohms because it will be feeding either a 50 ohm dummy load, or an ATU tuned to 50 ohms. With that in mind, I am simply using a resistive voltage divider, to get a voltage sample, and squaring it with an AD633 multiplier. This seems like a simple, cheap way to get watt info. assuming you will always be working into a near 50 ohm resistive load. Anyone see any reason why this will not give you a pretty good indication of your power output? I realize that the load may not always be exactly 50 ohms, and that there are losses in the ATU.
The reason I have not tried getting a current sample and using the conventional VI COS Theta with the multiplier is due to the additional complexity of circuitry. It is also difficult to get accurate current samples over a wide frequency range. By making everything resistive it somewhat takes the frequency dependency out of the problem. Thanks.
73 Gary N4AST

2468. Re: 24 volt power supply schematic needed

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-13 22:36:05 UTC
From: "G.Beat" <now9spamgb@no.comcast.spam.net.invalid>
Message-ID: <php1d.297505$8_6.74360@attbi_s04>
Source record: 23252

"Paul Keinanen" <keinanen@sci.fi> wrote in message
news:62sbk05j0o2vgip2d4k6gvu7dsci0bo0h8@4ax.com...
> On Mon, 13 Sep 2004 12:36:04 GMT, "G.Beat"
> <now9spamgb@no.comcast.spam.net.invalid> wrote:
>
>>Paul and Eric and provided a good background on how to adopt the ARRL
>>design.
>>You can substitute the 2N3771 transistor for the common 2N3055 pass
>>transistor (this is what Astron has done on many of their latest models).
>
> This suggestion makes sense for low voltage (5-12 V) high current
> power supplies, since the worst case current gain (15) has been
> specified for Ic=15 A and in general, the typical current gains are
> better at very large currents than with 2N3055. Also the Vbe and
> Vce(sat) voltages are lower at similar collector currents, thus, the
> capacitor voltage can be slightly lower.
>
[snip]
>
> Please note that the maximum Vce for 2N3771 is only 40 V and since the
> capacitor voltage can exceed 40 V and in case of a short circuit, the
> emitter is close to 0 V, the Vce could be exceeded. At least use the
> 2N3772 for the 24 V supply, since the maximum Vce is 60 V. The 2N3055
> is also specified for Vce=60 V.
>
> Paul OH3LWR
>
Yes, I also have the 2N3772 in my parts replacement bin - and have used as
replacements for shorted 2N3055 pass transistors.

w9gb

2469. Re: Thank you everyone!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-13 23:45:09 UTC
From: Craig <clark979@bellsouth.net>
Message-ID: <Liq1d.56447$Np2.49566@bignews4.bellsouth.net>
Source record: 23253

Thank you very much for all of the input. It was extremely helpful, yes the power supply will be used on a 200 watts ATV repeater amplifier and will be running 24/7. I have been taking a look at the ARRL handbook and figure that might be a good starting point but I am going to re-read all of the information that all of you provided and come up with a suitable power supply. Once again that you everyone for you suggestions and information.

73's

Craig
"G.Beat" <now9spamgb@no.comcast.spam.net.invalid> wrote in message
news:php1d.297505$8_6.74360@attbi_s04...
> "Paul Keinanen" <keinanen@sci.fi> wrote in message
> news:62sbk05j0o2vgip2d4k6gvu7dsci0bo0h8@4ax.com...
> > On Mon, 13 Sep 2004 12:36:04 GMT, "G.Beat"
> > <now9spamgb@no.comcast.spam.net.invalid> wrote:
> >
> >>Paul and Eric and provided a good background on how to adopt the ARRL
> >>design.
> >>You can substitute the 2N3771 transistor for the common 2N3055 pass
> >>transistor (this is what Astron has done on many of their latest
models).
> >
> > This suggestion makes sense for low voltage (5-12 V) high current
> > power supplies, since the worst case current gain (15) has been
> > specified for Ic=15 A and in general, the typical current gains are
> > better at very large currents than with 2N3055. Also the Vbe and
> > Vce(sat) voltages are lower at similar collector currents, thus, the
> > capacitor voltage can be slightly lower.
> >
> [snip]
> >
> > Please note that the maximum Vce for 2N3771 is only 40 V and since the
> > capacitor voltage can exceed 40 V and in case of a short circuit, the
> > emitter is close to 0 V, the Vce could be exceeded. At least use the
> > 2N3772 for the 24 V supply, since the maximum Vce is 60 V. The 2N3055
> > is also specified for Vce=60 V.
> >
> > Paul OH3LWR
> >
> Yes, I also have the 2N3772 in my parts replacement bin - and have used as
> replacements for shorted 2N3055 pass transistors.
>
> w9gb
>

>

2470. Re: 24 volt power supply schematic needed

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-14 05:55:09 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <sp1dk0tfdbe44henpmf23pbefbbtn96kud@4ax.com>
Source record: 23254

On Mon, 13 Sep 2004 22:50:08 +0200, J M Noeding <la8ak@online.no>
wrote:

> I suppose it is to be used for a linear amplifier,

Apparently this was needed for ATV, however, I have no idea if it was
for AM/VSB-ATV or FM-ATV.

>and then it is a not a good idea to use stabilized voltage.

This is certainly true for tube amplifiers which can tolerate high
standby voltages.

However, especially with bipolar RF transistors, if you first run them
at a lower voltage, high current and high dissipation and thus finally
with a high junction temperature and then reduce the loading, the
power supply voltage is increasing to the standby value, you are going
to have secondary breakdown problems.

When operating with an unregulated power supply, you must make sure
that during idle condition and maximum mains voltage, the storage
capacitor voltage is always less than the maximum allowed Vce for the
RF transistors. However, when loading the amplifier, the power supply
voltage drops 10-30 %, thus the RF output would drop even to one half
of what would otherwise be available from these RF transistors,
assuming adequate heatsinks.

It makes perfectly sense to use cheap series pass regulator
transistors in order to get the maximum power out of the expensive RF
transistors by running them all the time close to the maximum allowed
voltage.

Even if you accept the hum problems associated with unregulated
supplies, at least use some simple series pass regulator to limit the
standby voltage to the maximum allowed for the RF transistors. When
the capacitor voltage is below this maximum, simply put this regulator
into saturation, with less than 1 V drop, thus the amplifier Vcc
follows quite closely the capacitor voltage during discharge. The
dissipation in these series pass transistors would be quite low (low
current at high voltage difference, only the saturation voltage at
high current).

>It might have been needed
>for 14V, although Atlas 210-X was operated without - with a varying
>voltage between 11-16V, but is not the same problem for 24V.
>With maximum voltage of +32V the output may drop down towards 24V, and
>no problem at all - apart from setting a limit for the power input

Only problem that you must use 32 V RF transistors (64 V for collector modulated AM). With a regulated 24 V supply, you could use 24 V (48 V AM) RF-transistors and get the same RF output assuming identical power dissipation and current handling figures. The price for higher voltage transistors is usually higher.

With AM/VSB-ATV this will cause truncation of the sync pulses and possibly hum bars in the received signal (since the receiver a.g.c is derived only from the "constant" amplitude synch pulses :-). On FM-ATV there could be two noise bands across the screen.

Paul OH3LWR

2471. Re: Intermediate Licence project

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-14 07:45:38 UTC
From: Hans Summers <hans.summers@tudor.com>
Message-ID: <2qnlt2F10itc2U1@uni-berlin.de>
Source record: 23255

"Airy R. Bean" <me@privacy.net> wrote in message
news:2qm0d6Fvo8tcU1@uni-berlin.de...
> It is not a stupid response at all. Far from it; it is a response that
> stands for the maintenance of standards in Ham Radio. The M3/CB
> Fools' Licence here in Britland is an advanced CB licence, but it
> is not a Ham Radio licence by any stretch of the imagination.
>

Rubbish. I know several M3's, some of whom I have met on air (CW, that is). Proficient and courteous ops. Some of them are enthusiastic homebrewers, whose technical knowledge surely exceeds many, if not most, "full" license holders. To date, every M3 I have met is on his way to the full license. Several have got theirs since I first knew them.

I suspect that the majority of "full" license holders, "real" amateurs you would call them, buy their black box straight after the license arrives and never heat up a soldering iron. So what? If they're interested in ATV, CW, SSB, VHF, UHF, digital modes, homebrewing, DX'ing, whatever - who cares? The aspect is wide enough to cater for everyone's interest! Have your own interest and enjoy the hobby, without needing to mock others who enjoy it in their own way.

For myself, I have never operated a black box rig. Every single QSO I have ever had was on my all-homebrew station, see http://www.hanssummers.com/radio/g0upl/qsl/index.htm. But I still don't care who else does what - they ham their way and I ham mine - I know how I enjoy the hobby and I get on with it. When I CQ anyone is welcome - any speed, country, AND license class! I can't believe that there are those who'll hear an M3 and refuse to answer their call. Is that what amateur radio stands for?

May I also assure non-UK readers that Mr Bean's opinions and attitudes are not representative of UK amateurs in general. Mr Bean does seem an appropriate nickname however.

72/3 de Hans G0UPL
http://www.HansSummers.com

2472. Looking for Baycom Packet modem

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-14 07:54:23 UTC
From: Paul Jordan <pauljordan@gci.net>
Message-ID: <10kd9uomhdpfhff@corp.supernews.com>
Source record: 23257

I'm looking to try and set up an old HP 320LX on packet and I'd like to find a Baycom modem to do it with. If anyone has one gatherin dust, let me know what it will take to have you part with it. Shipping will be USPS to Anchorage so please figure that into your price.

Thanks,

Paul Jordan
kl0an

2473. Re: Intermediate Licence project

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-14 08:01:42 UTC
From: Hans Summers <hans.summers@tudor.com>
Message-ID: <2qnmr7F10s8prU1@uni-berlin.de>
Source record: 23256

"Peter Parker" <parkerp@NOSPAMalphalink.com.au> wrote in message
news:4145784a@news.alphalink.com.au...
>
> "S C" <cromie@onetel.com> wrote in message news:414461bc@212.67.96.135...
> > I would be grateful if anyone could suggest or provide me with a circuit
> > diagram for a Homebrew ATU with SWR meter or circuit diagrans for these
> > seperately.
>
> The simplest ATU is an L-match. Comprises a coil and a capacitor.
Explain
> that it is useful for matching high-impedence end fed wires approx half
> wavelength long to 50 ohm and you should pass.
>

Yes - have a look at my version
http://www.hanssummers.com/radio/atu/atu.htm. I included a 50-ohm 10 Watt
dummy load and forward/reverse power meter. It doesn't read SWR directly, if
you really want to know the SWR then you measure the forward power and the
reverse (reflected) power and put them in the SWR formula.

In practice, 99% of the time you don't care about SWR, you just tune for
minimum reflected power. Operation is very easy - when switched to reflected
power, tune the capacitor to get minimum indicated reflected power. Then try
different L settings by switching the coil tap, and see which setting allows
the reflected power minimum to be deepest. I have a 1W full-scale-deflection
setting for the fine tuning. Then switch to forward power and away you go.

No need to know the actual SWR in practice; the only time I have bothered to
calculate it is when I want to tell people how close to 1:1 I can tune my
various incarnations of longwire antennas. Random length, not cut to any
particular band. Including the bent indoor attic "short"wire I had my first
QSO's on. So far I am very content with my ATU, I have been QRV on 80, 40
and 30m and always found it works well.

73 Hans G0UPL
http://www.HansSummers.com

2474. Re: Is ours the most technical hobby in the world?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-14 15:05:56 UTC
From: Dana Myers <dana.myers@gmail.com>
Message-ID: <oND1d.20760$Fb1.20157@newssvr29.news.prodigy.com>
Source record: 23258

Paul Burridge wrote:
> Hi guys,
>
> Well do you think it is? I personally can't think of any other
> passtime accessible to the individual which requires such a high
> degree of technical knowledge to succeed at. If anyone can think of
> something more complex, let's hear it!

Nope.

Try winemaking.

Dana K6JQ

2475. Re: Is ours the most technical hobby in the world?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-14 15:20:28 UTC
From: SioL <Sio_spam_L@same.net>
Message-ID: <A1E1d.2786$F6.629679@news.siol.net>
Source record: 23259

"Dana Myers" <dana.myers@gmail.com> wrote in message
news:oND1d.20760$Fb1.20157@newssvr29.news.prodigy.com...
> Paul Burridge wrote:
>> Hi guys,
>>
>> Well do you think it is? I personally can't think of any other
>> passtime accessible to the individual which requires such a high
>> degree of technical knowledge to succeed at. If anyone can think of
>> something more complex, let's hear it!
>
> Nope.
>
> Try winemaking.
>
> Dana K6JQ

Amateur astronomers, hackers...

SioL

2476. CB "Swing"? (proper AM modulation)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-14 16:23:31 UTC
From: Chris <REMOVEchris1379ME@bigfoot.com>
Message-ID: <7WE1d.166$gG4.101@newsread1.news.pas.earthlink.net>
Source record: 23260

I will probably get some flames from this but here it goes. I have been into CB radio for a number of years but don't agree with most of what I hear. That's just one of the reasons I'm looking to amateur radio. One of the things I often hear in CB circles is that one should turn a 4 watt AM radio down to 1 1/2 watts and let it "SWING". How is this possible? What really happens when you do this? I think I know. So, how much carrier should you have for an amp or final stage with a known max output. In other words, if it can produce 8 watts max unmodulated carrier, is a 4 watt carrier ideal? If it produces 100 watts, is 50 watts ideal? How much "space"does it need for proper modulation? Is there a website that explains this well? I'm an electronics tech thirsting for knowledge.

Chris

2477. Re: Intermediate Licence project

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-14 17:26:29 UTC
From: S C <cromie@onetel.com>
Message-ID: <41472a35@212.67.96.135>
Source record: 23261

Many thanks to those of you that have thus far provided me with advice and guidance it is all very much appreciated.

To those persons who appear somewhat offended by the presence of an M3 licence holder - Your comments have been noted and promptly disregarded.

Without the supply of new interested individuals this hobby would eventually cease to exist.

Finally, I would be grateful if anyone could provide me with smoe advice in relation to CW. E.g. Methods available to improve the transmission and understanding CW messages.

Many Thanks once again.

"S C" <cromie@onetel.com> wrote in message news:414461bc@212.67.96.135...
> I would be grateful if anyone could suggest or provide me with a circuit
> diagram for a Homebrew ATU with SWR meter or circuit diagrans for these
> seperately.
>
> I hope to build one for use on the HF bands.
>
> Many Thanks for your help
>
> M3GBQ
>
>

2478. Re: CB "Swing"? (proper AM modulation)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-14 17:32:05 UTC
From: Uncle Peter <radioconnectionNO@cox.netSPAM>
Message-ID: <pWF1d.233804$Lj.61519@fed1read03>
Source record: 23262

"Chris" <REMOVEchris1379ME@bigfoot.com> wrote in message
news:7WE1d.166$gG4.101@newsread1.news.pas.earthlink.net...
> I will probably get some flames from this but here it goes. I have been
into
> CB radio for a number of years but don't agree with most of what I hear.
> That's just one of the reasons I'm looking to amateur radio. One of the
> things I often hear in CB circles is that one should turn a 4 watt AM
radio
> down to 1 1/2 watts and let it "SWING". How is this possible? What really
> happens when you do this? I think I know. So, how much carrier should you
> have for an amp or final stage with a known max output. In other words, if
> it can produce 8 watts max unmodulated carrier, is a 4 watt carrier ideal?
> If it produces 100 watts, is 50 watts ideal? How much "space"does it need
> for proper modulation? Is there a website that explains this well? I'm an
> electronics tech thirsting for knowledge.
>
> Chris
>
>

What kind of modulation scheme? Let's assume high-level plate
modulation, which requires the final to be run in Class C (this class
permits the instaneous power output to reach 4 X the unmodulated
carrier when the plate voltage is doubled, as it will be on the peak
of the modulation voltage). The question that
should be asked is if the modulator is capable of delivering enough
power to fully modulate the carrier at the higher power levels.

From what you're describing, they are backing the power back
to properly match a weak modulator.

Pete

2479. Re: Intermediate Licence project

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-14 18:25:49 UTC
From: Aaron Jones <noemail@noemail.com>
Message-ID: <n6dek01mj6vu42tsgs6h2rmg1k68uip0l3@4ax.com>
Source record: 23263

"Hans Summers" <hans.summers@tudor.com> wrote:
>No need to know the actual SWR in practice;

I didn't even have an SWR meter for the first 10 years or so of my ham career. With the link coupled rigs I just shoved the link coil in until the correct plate current was reached (after dipping of course). Same with Pi Net, just adjust for correct plate current. And the war surplus stuff, remember those antenna current meters...

Come to think of it I think I was happier then, ignorance is bliss... ;)

2480. Re: CB "Swing"? (proper AM modulation)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-14 18:34:17 UTC
From: NO SPAM <NOSPAM@NOSPAM.COM>
Message-ID: <xRG1d.2040$Ae.836@newsread1.dllstx09.us.to.verio.net>
Source record: 23264

Proper AM Modulation - however it is achieved, should not exceed 100% - lest you sound like CRAP... which is what "many" CBers sound like with their sets modified. Besides, it is against FCC R/Rs to exceed 100% modulation as then it creates splatter to the neighboring channels. An Amplifier on the output will only compound the problem. If you want to talk the world, get into Ham, as you're looking at interest anyhow. Don't waste your time trying to modify some 4 or 12 watt junk to do things they're not really made to do. Besides, with Ham, you'll find out. POWER "isn't" the whole game. Ever hear of QRP? It is working with the least amount of power necessary. Many have worked vast miles with so little RF. Part 97 also calls for working with minimum power necessary. So, there you have it. Also, I've seen cases where those types of mods were more hype than working. If you're really curious, get a good meter such as a Bird 43 and a scope to monitor your modulation, a dummy load so you don't pollute the air with the garbage and another CB to listen to yourself on and experiment with trying to lower the power and up the modulation. Some sets "may" do it, some won't. One other thing - An unmodulated carrier only supplies a portion of the RF. The rest of the power is contained in the modulation. Most amps will tell you the range of RF it takes to get it to maximum output. If you're into CB repair that much, then check out Lou Franklin's book on CB repair. It talks a lot of all aspects of CB repair. Some things I disagree with a little as I've seen some of his theories shot down - but otherwise, a good book. I can't tell you how many golden screw driver jobs I've heard on the air, supposedly tuned as you speak of and well.... they sound like they have a mouth full of shit.

NS

"Chris" <REMOVEchris1379ME@bigfoot.com> wrote in message
news:7WE1d.166$gG4.101@newsread1.news.pas.earthlink.net...
> I will probably get some flames from this but here it goes. I have been
into
> CB radio for a number of years but don't agree with most of what I hear.
> That's just one of the reasons I'm looking to amateur radio. One of the
> things I often hear in CB circles is that one should turn a 4 watt AM
radio
> down to 1 1/2 watts and let it "SWING". How is this possible? What really
> happens when you do this? I think I know. So, how much carrier should you
> have for an amp or final stage with a known max output. In other words, if
> it can produce 8 watts max unmodulated carrier, is a 4 watt carrier ideal?
> If it produces 100 watts, is 50 watts ideal? How much "space"does it need
> for proper modulation? Is there a website that explains this well? I'm an
> electronics tech thirsting for knowledge.
>
> Chris
>

>

2481. Re: CB "Swing"? (proper AM modulation)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-14 19:26:17 UTC
From: Yora Ishmel <asasas@wewewewe.sdsd>
Message-ID: <2qp01gF11amgsU1@uni-berlin.de>
Source record: 23265

"Chris" <REMOVEchris1379ME@bigfoot.com> wrote in message
news:7WE1d.166$gG4.101@newsread1.news.pas.earthlink.net...
> I will probably get some flames from this but here it goes. I have been
into
> CB radio for a number of years but don't agree with most of what I hear.
> That's just one of the reasons I'm looking to amateur radio. One of the
> things I often hear in CB circles is that one should turn a 4 watt AM
radio
> down to 1 1/2 watts and let it "SWING". How is this possible? What really
> happens when you do this? I think I know. So, how much carrier should you
> have for an amp or final stage with a known max output. In other words, if
> it can produce 8 watts max unmodulated carrier, is a 4 watt carrier ideal?
> If it produces 100 watts, is 50 watts ideal? How much "space"does it need
> for proper modulation? Is there a website that explains this well? I'm an
> electronics tech thirsting for knowledge.
>
> Chris
>

AM 100% modulation is max before distortion of Audio.
The carrier has 50% of the power, the two sidebands have the other 50%.

4 watt is 4 watt, why turn it down, urban rumor
No "space" is needed unless you have a cheap rig.
The carrier will be at 2 watt with 100% modulation.

much of CB is single sideband. Then there is no carrier, and no other
sideband, so you can get 4 time as much, over AM

2482. New Web Forum

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-14 21:07:13 UTC
From: microwaves@blueyonder.co.uk
Message-ID: <41485cac.2542425@news.blueyonder.co.uk>
Source record: 23266

The following is the whole text from an email recently sent to be by
Steve Birkhill, G8AKQ, who is perhaps more widely known for his
professional SAT TV work than his amateur radio. He has asked for the
information to be posted widely and so here it is on the newsgroup ...

Peter, G3PHO

.....
.....

Dear All,

For some time now I've been considering the launch of a Web forum
('message
board') specifically for DX enthusiasts, but spanning the wide range
of disciplines this embraces, including radio and TV amateurs,
broadcast engineers and listeners/viewers, satellite enthusiasts,
space communications professionals and radio astronomers.

Today I'm writing and sending this to a short-list of 40 names,
selected either because we're acquainted (or have been in years gone
by) or because of their pre-eminence in one or more of the fields to
which I'm dedicating the forum. This is a one-off, as I'm not in the
spam business, and I hope none of you will consider this an intrusion.

I have set up the categories and boards in the experimental forum to
include at least one in which you might have an interest. In those
where I have any significant personal or professional background, I've
posted an introductory message summarising this.

Naturally, as I'm only launching the forum today, all the content so
far is my own. Please don't let this (either the fact or the content)
put you off! My intention is that this be a place of information
exchange, discussion, debate and argument on anything to do with
electromagnetic wave communication, especially using experimental or
unconventional modes or techniques. Once it develops (if it does) a
momentum of its own (which of course depends on you, the 40 invited
pilot members) I intend to take a back seat and let it run itself. To
this end I will in due course be looking to appoint moderators for the
various boards making up the forum.

To make it work, I need you to visit the Website, browse around,
decide whether it has potential, and perhaps post your own message. If
you intend to post or to start a new thread you must first register as
a member: it needs no more than an e-mail address, which will be held
in strictest confidence. But mainly, if you like what you see, I need
you to tell your colleagues and contacts about the forum and urge them

also to visit. Please feel free to publicise the forum in your column or journal, and place a link on your Website.

Use the forum however you wish, within the broad scope of the 'rules'. You should regard it as flexible: if some of the boards don't work out I'll delete them; if we need to reorganise, I'll do that -- I may have got everything wrong. I have no axe to grind -- it's a totally non-commercial, non-profit venture for the benefit of members. If nobody comes I'll quietly close it all down and do something else. But for now you can find the new forum at:

http://www.dx-forum.com

Just one request: this is a spare-time project for me, a person normally considered as having a negative amount of this quantity. If you all reply to me saying what you think, making suggestions or telling me I'm wasting my time, I just won't be able to cope. At the very least you'll think me rude for not replying. So please, if you have comments or questions post them in the forum itself, for all to see. If it's something specific that needs my input, I'll respond there.

Hope to see you in the DX Forum!

Regards & 73

Stephen J Birkill (G8AKQ), DX Forum administrator

2483. Re: Intermediate Licence project

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-14 21:26:47 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2qp706F11t462U1@uni-berlin.de>
Source record: 23267

You behave like a 5-year old

"Peter" <microwaves@blueyonder.co.uk> wrote in message
news:41470b89.216396641@news.blueyonder.co.uk...
> So Airy R Bean finally infested this newsgroup as well !

2484. Re: Intermediate Licence project

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-14 21:30:42 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2qp706F11t462U2@uni-berlin.de>
Source record: 23268

Irrelevant - the M3/CB Fools' Licence is judged by the lowest
standard necessary to obtain one.

Starting from scratch, with a previous irrelevant interest, perhaps
needleworking, fishing or CB Radio, you can obtain an M3/CB
Fools' Licence within 2 days. There is no way that anyone in such
a category has picked up any technical nous to qualify them as a
Radio Ham. If there really are people such as you claim, and you have
not just invented them for the purpose of this discussion, then why haven't
they got a higher grade of licence?

"Hans Summers" <hans.summers@tudor.com> wrote in message
news:2qnlt2F10itc2U1@uni-berlin.de...
>
> "Airy R. Bean" <me@privacy.net> wrote in message
> news:2qm0d6Fvo8tcU1@uni-berlin.de...
> > It is not a stupid response at all. Far from it; it is a response that
> > stands for the maintenance of standards in Ham Radio. The M3/CB
> > Fools' Licence here in Britland is an advanced CB licence, but it
> > is not a Ham Radio licence by any stretch of the imagination.
> >
>
> Rubbish. I know several M3's, some of whom I have met on air (CW, that
is).
> Proficient and courteous ops. Some of them are enthusiastic homebrewers,
> whose technical knowledge surely exceeds many, if not most, "full" license
> holders.

2485. Re: Intermediate Licence project

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-14 21:32:06 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2qp707F11t462U3@uni-berlin.de>
Source record: 23269

You would seem to be describing a CBers-Masquerading-As-Radio-Hams
and not actually _REAL_ Radio Hams.

"Hans Summers" <hans.summers@tudor.com> wrote in message
news:2qnlt2F10itc2U1@uni-berlin.de...
> "Airy R. Bean" <me@privacy.net> wrote in message
> news:2qm0d6Fvo8tcU1@uni-berlin.de...
> > It is not a stupid response at all. Far from it; it is a response that
> > stands for the maintenance of standards in Ham Radio. The M3/CB
> > Fools' Licence here in Britland is an advanced CB licence, but it
> > is not a Ham Radio licence by any stretch of the imagination.
> I suspect that the majority of "full" license holders, "real" amateurs you
> would call them, buy their black box straight after the license arrives
and
> never heat up a soldering iron.

2486. Re: Intermediate Licence project

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-14 21:32:55 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2qp707F11t462U4@uni-berlin.de>
Source record: 23270

I am not mocking anybody - your comment says more
about you, perhaps, than it does about me?

"Hans Summers" <hans.summers@tudor.com> wrote in message
news:2qnlt2F10itc2U1@uni-berlin.de...
> Have your own
> interest and enjoy the hobby, without needing to mock others who enjoy it
in
> their own way.

2487. Re: Intermediate Licence project

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-14 21:34:36 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2qp707F11t462U5@uni-berlin.de>
Source record: 23271

Argumentum Ad Populum.

That you choose finally to resort to rather silly and childish remarks
would seem to classify you as a CBer which would explain your
ranting.

"Hans Summers" <hans.summers@tudor.com> wrote in message
news:2qnlt2F10itc2U1@uni-berlin.de...
> "Airy R. Bean" <me@privacy.net> wrote in message
> news:2qm0d6Fvo8tcU1@uni-berlin.de...
> > It is not a stupid response at all. Far from it; it is a response that
> > stands for the maintenance of standards in Ham Radio. The M3/CB
> > Fools' Licence here in Britland is an advanced CB licence, but it
> > is not a Ham Radio licence by any stretch of the imagination.
> May I also assure non-UK readers that Mr Bean's opinions and attitudes are
> not representative of UK amateurs in general. Mr Bean does seem an
> appropriate nickname however.
> 72/3 de Hans G0UPL

2488. FA:HRO COILS + DIAL WINDOWS + ...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-14 21:55:08 UTC
From: Heytubeguy <heytubeguy@worldnet.att.net>
Message-ID: <0NJ1d.366559$OB3.182391@bgtnsc05-news.ops.worldnet.att.net>
Source record: 23272

See the coils (A,AA,B,C,D) + 10-11 AND 6 meter dial windows at :

http://cgi6.ebay.com/ws/eBayISAPI.dll?ViewSellersOtherItems&userid=heytubeguy&completed=0&sort=3&since=-1&include=0&page=1&rows=25

tnx for looking : Heytubeguy

2489. re Battery voltage indicator

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-14 22:04:30 UTC
From: Will-tech <willtech@dsl.pipex.com>
Message-ID: <41476aea$0$29914$cc9e4d1f@news.dial.pipex.com>
Source record: 23273

The LM3914 bargrah driver chip will do a good job for you.

Regards
Derwyn
GW4SAE

2490. Re: Intermediate Licence project

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-14 22:08:38 UTC
From: Nimrod <mighty@hunter.com>
Message-ID: <2qp8evF11ugugU1@uni-berlin.de>
Source record: 23274

"Hans Summers" <hans.summers@tudor.com> wrote in message
news:2qnlt2F10itc2U1@uni-berlin.de...
>
> "Airy R. Bean" <me@privacy.net> wrote in message
> news:2qm0d6Fvo8tcU1@uni-berlin.de...
>> It is not a stupid response at all. Far from it; it is a response that
>> stands for the maintenance of standards in Ham Radio. The M3/CB
>> Fools' Licence here in Britland is an advanced CB licence, but it
>> is not a Ham Radio licence by any stretch of the imagination.
>>
>
> Rubbish. I know several M3's, some of whom I have met on air (CW, that
> is).
> Proficient and courteous ops. Some of them are enthusiastic homebrewers,
> whose technical knowledge surely exceeds many, if not most, "full" license
> holders. To date, every M3 I have met is on his way to the full license.
> Several have got theirs since I first knew them.
>

Hans, ask Airy (sorry Gareth) how long he held his licence before getting
to hold a G4.............

Even better, how long it took to learn about fitting
PL259s..... (about 30 years).

Then try: Fixing a FT101 , repairing a TS830, FT221R,
.....

2491. Re: Intermediate Licence project

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-14 22:08:45 UTC
From: Nimrod <mighty@hunter.com>
Message-ID: <2qp8f6F12iklfU1@uni-berlin.de>
Source record: 23275

"Airy R. Bean" <me@privacy.net> wrote in message
news:2qp706F11t462U2@uni-berlin.de...
> Irrelevant - the M3/CB Fools' Licence is judged by the lowest
> standard necessary to obtain one.
>
> Starting from scratch, with a previous irrelevant interest, perhaps
> needleworking, fishing or CB Radio, you can obtain an M3/CB
> Fools' Licence within 2 days. There is no way that anyone in such
> a category has picked up any technical nous to qualify them as a
> Radio Ham. If there really are people such as you claim, and you have
> not just invented them for the purpose of this discussion, then why
> haven't
> they got a higher grade of licence?
>

But they have Gareth. Remember your 'friend' the M0 you thought was still a
M3? You know, the one you tried to show how to fit a PL259. Only thing is,
you couldn't fit it yourself. Could you.

He must still be laughing.....we are.

2492. Re: Intermediate Licence project

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-14 23:14:46 UTC
From: Peter Parker <parkerp@NOSPAMalphalink.com.au>
Message-ID: <414779aa$1@news.alphalink.com.au>
Source record: 23276

"S C" <cromie@onetel.com> wrote in message news:41472a35@212.67.96.135...

> Finally, I would be grateful if anyone could provide me with smoe advice
in
> relation to CW. E.g. Methods available to improve the transmission and
> understanding CW messages.

This depends on operator sending and receiving ability. But also important is quality of transmitted note, absence of clicks, slow speed if signals are weak, repetition of important information if signals are weak, use of IF and audio bandpass and notch filters.

73, Peter

2493. Inviting Entries to Electronic Design Contest to win cash $100

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-14 23:18:55 UTC
From: bennyinomaha2000@yahoo.com
Message-ID: <62b61c32.0409141518.3ba02e27@posting.google.com>
Source record: 23277

Objective: The purpose of the Electronic Design Contest is to promote excellence in the design of electronic systems and help the company to improve circuit design quality by providing competition between graduate and undergraduate students at universities and colleges.

Award: The 1st winner will be grant $100, and the 2nd winner will be grant 10% discount coupon.

Problem: Design DC. motor speed control circuit that is used to control the speed of direct current. Click here for more information (Please don't copy the design from a link.)

Criteria: Submissions are made electronically via the TechnologyKit.us web site. Electronic Design Diagram must be drawn in Microsoft Visio file format. The deadline for submission is October 30, 2004

Check out on www.TechnologyKit.us for more information.

2494. Re: Intermediate Licence project

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-15 00:13:37 UTC
From: mikea@mikea.ath.cx
Message-ID: <ci81fh$u4f$2@puck.litech.org>
Source record: 23278

Airy R. Bean <me@privacy.net> wrote:
> I am not mocking anybody - your comment says more
> about you, perhaps, than it does about me?

> "Hans Summers" <hans.summers@tudor.com> wrote in message
> news:2qnlt2F10itc2U1@uni-berlin.de...
> > Have your own
> > interest and enjoy the hobby, without needing to mock others who enjoy it
> in
> > their own way.

Welcome to my killfile. You, unlike Hans, have nothing to say, and you insist on saying it over and over at extreme length. I can think of nothing, including amateur radio, Usenet, and the human race, to which you are an ornament, and anything to which you are compared will be insulted.

--
Mike Andrews
mikea@mikea.ath.cx
Tired old sysadmin

2495. Re: CB "Swing"? (proper AM modulation)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-15 01:19:00 UTC
From: Uncle Peter <radioconnectionNO@cox.netSPAM>
Message-ID: <6MM1d.233903$Lj.40036@fed1read03>
Source record: 23279

There is no limit to AM modulation, it is not limited to 100 percent
in the positive direction. It is limited to 100 percent in the negative
direction, to prevent cutoff. Positive limits are set by the mdoulation
linearity of the output stage with increasing positive voltage.
Most AM BC broadcasters in this country use assemtrical modulation
for this reason.

Peter

2496. Re: CB "Swing"? (proper AM modulation)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-15 02:50:21 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10kfbffpvnmvcb1@corp.supernews.com>
Source record: 23280

It sounds like a technique I remember calling "controlled carrier". The carrier power was reduced when you weren't talking, then was increased with the audio in an AGC-like manner. Sounded a little weird, but not badly distorted. The objective was to reduce the average dissipation of the final stage, so smaller tubes and a lighter duty power supply could be used.

But I don't see why you'd use a method like this with a low power transmitter, since it's trivial to make one that easily handles the power requirements of standard AM. So I don't really think that's what is meant by "swing". I'd bet good money that whatever "swing" is, it doesn't improve quality or signal strength, and very likely introduces distortion that causes splatter. If the transmitter was designed for 100% modulation of a 4 watt carrier, and you reduce the carrier without a proportional reduction of the audio, you'll be overmodulating and consequently distorting and splattering.

What are the supposed benefits of this "swing"?

Roy Lewallen, W7EL

2497. ** FLEA at MIT ** Sunday September 19th Cambridge MA

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-15 03:05:50 UTC
From: w1gsl@mit.edu
Message-ID: <4147b18e$0$568$b45e6eb0@senator-bedfellow.mit.edu>
Source record: 23281
Cross-posted to: rec.radio.swap,rec.radio.amateur.misc,rec.radio.info,sci.electronics.misc,ne.forsale,ne.general,rec.radio.amateur.homebrew,rec.radio.amateur.boatanchors

This coming Sunday....

+++ Now even more Buyers Parking !!!
Thanks to TKT we have use of their new parking lot
across Albany St from the SWAPFEST !!!

!! ** More Buyers PARKING is available ** for details see
http://web.mit.edu/w1gsl/Public/flyer

*** !!!! In our Traditional GARAGE and the adjacent lot !!!! ****
so come rain or shine or super heat the Flea is on !!!

********* $1 buyers discount with hardcopy of this notice ********

COMPUTERS - ELECTRONICS - HAM RADIO - COMPUTERS - ELECTRONICS - HAM RADIO

FLEA all SUMMER at MIT
Sunday September 19th 2004
9AM-2PM

Come to the city for a great flea - plenty of free parking.

MIT's electronics and ham radio flea will take
place on the third Sunday of each month this summer,
April thru October.

There is tailgate space for over 600 sellers and
free, off-street parking for >2000 cars!

Buyers admission is $5 (you get $1 off if
you're lucky enough to have a copy of our ad)
and sellers spaces are $20 for the first and
$15 for each additional at the gate.

The flea will be held at the corner of Albany and
Main streets in Cambridge; right in the Kendall
Square area from 9AM to 2PM, with sellers set-up
time starting at 7AM.

*** Attention Sellers ***
Prepaid vendors.. Season Pass or monthly,
will be admitted FIRST.
Separate lines will form prior to gate opening
for prepaid and nonprepaid vendors

!! RAIN or SHINE !! Have no fear of rain, a covered
well illuminated tailgate area is available for all
sellers (6'8" clearance).

Talk-in: 145.23- (PL 88.5) W1BOS/R and
W1XM/R-449.725/444.725 (PL 114.8/2A).

Sponsors: MIT Electronics Research Society
MIT UHF Repeater Association (W1XM)
MIT Radio Society (W1MX)
Harvard Wireless Club (W1AF)

For more info / advanced reservations 617 253 3776

********** $1 buyers discount with hard copy of this notice ************

<<<<<<<<<<<<<<<<<<<<<<< cut here >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>

Mail the coupon below by the 5th of the month to be a Prepaid Vendor.

FLEA at MIT 2004 Rates

SELLERS

Advance $17 First space - includes $10 Cambridge Vendor License
$12 Additional Spaces
Must be received by the 5th of the month.

Gate Admission $20 First Space - includes $10 Cambridge Vendor License
$15 Additional Spaces
Admission is after the prepaid vendors

Early Bird Buyer -Admission after the prepaid vendor line is admitted. ~ 7:15AM
** You may not sell. **
$15 per person at the gate.

****************************** cut here ******************************

FLEA at MIT 2004 Advance Space Application

____April ____May ____June ____ July ____Aug ___Sept ____Oct
@ $17 for the first each month + $12 each additional
____ Season Pass $99 first space $70 each additional

Name _____ Call _____ $ Included_____

Address _____ Phone _____ Make Check to
The MIT Radio Society
City _____ State _____ Zip _____ PO Box 397082
Cambridge MA 02139
E-mail _____

****
Steve Finberg W1GSL w1gsl@mit.edu
PO Box 82 MIT Br Cambridge MA 02139-7082 617 258 3754
****

2498. Re: CB "Swing"? (proper AM modulation)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-15 03:28:33 UTC
From: Chris <REMOVEchris1379ME@bigfoot.com>
Message-ID: <BFO1d.624$gG4.329@newsread1.news.pas.earthlink.net>
Source record: 23282

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:10kfbffpvnmvcb1@corp.supernews.com...
| It sounds like a technique I remember calling "controlled carrier". The
| carrier power was reduced when you weren't talking, then was increased
| with the audio in an AGC-like manner. Sounded a little weird, but not
| badly distorted. The objective was to reduce the average dissipation of
| the final stage, so smaller tubes and a lighter duty power supply could
| be used.
|
| But I don't see why you'd use a method like this with a low power
| transmitter, since it's trivial to make one that easily handles the
| power requirements of standard AM. So I don't really think that's what
| is meant by "swing". I'd bet good money that whatever "swing" is, it
| doesn't improve quality or signal strength, and very likely introduces
| distortion that causes splatter. If the transmitter was designed for
| 100% modulation of a 4 watt carrier, and you reduce the carrier without
| a proportional reduction of the audio, you'll be overmodulating and
| consequently distorting and splattering.
|
| What are the supposed benefits of this "swing"?
|
| Roy Lewallen, W7EL

To reduce the drive power to an amplifier and make the modulation louder.

Chris

2499. Re: Wattmeter Location

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-15 04:18:26 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10kfgkkt9if0u06@corp.supernews.com>
Source record: 23283

This should be fine if you're not after a great deal of accuracy.

I think the biggest problem you'll have is insuring that the load really is 50 ohms and resistive, and that your divider is doing what you think. It doesn't take very much inductance at all at HF to produce a reactance that's a good sized fraction of 50 ohms. Also, if you're tapping into a transmission line, it can be extremely difficult to maintain a 50 ohm environment at the measurement point. I don't really know what level of accuracy you can easily achieve, but I do see the possibility for some fairly large errors to creep in without being obvious. I'd recommend trying to calibrate against some known standard if at all possible, to get an idea of what kind of accuracy you're achieving.

Roy Lewallen, W7EL

JGBOYLES wrote:
> Hi,
> I am contemplating a pep reading wattmeter so I can check the output of my HB
> amplifier. Consequently, I am putting it right on the output of the amp. The
> output of the amp should always see 50 ohms because it will be feeding either a
> 50 ohm dummy load, or an ATU tuned to 50 ohms. With that in mind, I am simply
> using a resistive voltage divider, to get a voltage sample, and squaring it
> with an AD633 multiplier. This seems like a simple, cheap way to get watt
> info. assuming you will always be working into a near 50 ohm resistive load.
> Anyone see any reason why this will not give you a pretty good indication of
> your power output? I realize that the load may not always be exactly 50 ohms,
> and that there are losses in the ATU.
> The reason I have not tried getting a current sample and using the
> conventional VI COS Theta with the multiplier is due to the additional
> complexity of circuitry. It is also difficult to get accurate current samples
> over a wide frequency range. By making everything resistive it somewhat takes
> the frequency dependency out of the problem. Thanks.
> 73 Gary N4AST

2500. Re: CB "Swing"? (proper AM modulation)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-15 04:38:52 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10kfhqv2vs9ge8e@corp.supernews.com>
Source record: 23284

Chris wrote:

>
> To reduce the drive power to an amplifier and make the modulation louder.
>
> Chris

I see. But reducing the carrier won't make the modulation louder, only more distorted.

Well, let me back up a little. What I said is true if the modulation is 100%.

But let's suppose that the transmitter is capable of only 50% modulation. In that case, you *can* make the modulation louder by increasing the amount of audio applied to the carrier. If the transmitter is fundamentally designed to handle 100% modulation, this would require only more audio gain or a "hotter" microphone. That would be the best way to make your modulation louder.

But let's say that instead, you reduce the carrier from 4 watts to 1. Then the 1 watt carrier would be 100% modulated. (100% modulation of a 4 watt carrier takes 2 watts. 50% modulation takes only 1/2 watt, which will modulate a 1 watt carrier 100%.) Now you have 100% modulation of the 1 watt carrier. There's the same amount of transmitted audio power as before -- 1/2 watt --, so you're really not making the audio any stronger, and no one will be able to copy you any better than before. (In fact, your weaker signal will have more trouble getting through in the presence of noise or interference.) But if you're the only signal being heard, the receiver's AGC (automatic gain control) will react to your weaker carrier by turning up the receiver's gain, making the audio sound louder. The person receiving your signal can make your audio just as loud with a 4 watt carrier by manually turning up the volume.

So I'll relent and say that reducing the carrier might make your audio sound louder -- but only if your transmitter is undermodulated in the first place, there's no stronger signal to control the receiver AGC, and if you don't reduce the carrier so much that it makes the modulation exceed 100%. But your ability to get through interference and noise will probably be reduced.

Roy Lewallen, W7EL

2501. Re: CB "Swing"? (proper AM modulation)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-15 05:49:42 UTC
From: Doug Smith W9WI <w9wi@invalid.invalid>
Message-ID: <4147D7F5.2060406@invalid.invalid>
Source record: 23285

Chris wrote:
> I will probably get some flames from this but here it goes. I have been into
> CB radio for a number of years but don't agree with most of what I hear.
> That's just one of the reasons I'm looking to amateur radio. One of the
> things I often hear in CB circles is that one should turn a 4 watt AM radio
> down to 1 1/2 watts and let it "SWING". How is this possible? What really
> happens when you do this? I think I know. So, how much carrier should you
> have for an amp or final stage with a known max output. In other words, if
> it can produce 8 watts max unmodulated carrier, is a 4 watt carrier ideal?
> If it produces 100 watts, is 50 watts ideal? How much "space"does it need
> for proper modulation? Is there a website that explains this well? I'm an
> electronics tech thirsting for knowledge.

In amplitude modulation, the strength - "amplitude" - of the carrier is
adjusted by the audio you wish to transmit.

The degree to which this strength is adjusted is the "modulation
percentage". If the carrier is cut completely at negative voice peaks,
and strengthened to twice its normal level at positive peaks, then the
signal is said to be "100% modulated".

The receiver at the other end can only detect the *changes* in carrier
strength - not the carrier itself. If you reduce the modulation
percentage, you reduce the strength of the changes - the strength of the
signal the other guy can hear.

On the other hand, the laws of physics prohibit negative power. Once
you've modulated 100% - and reduced the carrier to zero at negative
peaks - you CAN'T go any further. It's physically impossible. If you
try, you'll generate sharp cutoffs that result in "splatter" - strong
interfering noises in adjacent channels. (and your signal on the
channel you're meaning to transmit on will become seriously distorted
and difficult to understand) [0]

So the point is, you want to modulate as close to 100% as practical
while ensuring you never *exceed* 100%.

For normal "high-level" modulation the amount of audio power required to
achieve 100% modulation is half the RF power. A 4-watt carrier requires
two watts of audio to modulate it 100%.
--
Doug Smith W9WI
Pleasant View (Nashville), TN EM66
http://www.w9wi.com

[0] It is possible to exceed 100% in the *positive* direction -
increasing the carrier beyond twice its normal level - without causing
distortion and interference. Such schemes are common at AM broadcast
stations. I'm not aware of any CB radio that contains such a circuit.

2502. Re: CB "Swing"? (proper AM modulation)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-15 05:56:48 UTC
From: Doug Smith W9WI <w9wi@invalid.invalid>
Message-ID: <4147D99F.2060102@invalid.invalid>
Source record: 23286

Roy Lewallen wrote:
> It sounds like a technique I remember calling "controlled carrier". The
> carrier power was reduced when you weren't talking, then was increased
> with the audio in an AGC-like manner. Sounded a little weird, but not
> badly distorted. The objective was to reduce the average dissipation of
> the final stage, so smaller tubes and a lighter duty power supply could
> be used.

No, "controlled carrier" was something else.

In >100% positive modulation, the carrier amplitude is constant
regardless of program material. You (somehow!) maintain proper absolute
phase through the chain so that you know a positive-going audio signal
at the transmitter audio input terminals will result in increasing power
in the modulated carrier. You then allow the positive-going signal
peaks to exceed 100% while limiting negative-going peaks to less than
100%. Broadcast modulation monitors are able to display negative-going
and positive-going modulation peaks independently.

(at a broadcast station, the FCC requires that carrier power be between
-- IIRC, my copy of Part 73 is missing -- 80 and 110% of the authorized
figure. DX-60B-style controlled carrier wouldn't comply, though I
suppose you could develop a system that didn't swing the carrier quite
as far.)
--
Doug Smith W9WI
Pleasant View (Nashville), TN EM66
http://www.w9wi.com

2503. Re: CB "Swing"? (proper AM modulation)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-15 06:52:07 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10kfpkqb76jce78@corp.supernews.com>
Source record: 23287

Doug Smith W9WI wrote:
> Roy Lewallen wrote:
>
>> It sounds like a technique I remember calling "controlled carrier".
>> The carrier power was reduced when you weren't talking, then was
>> increased with the audio in an AGC-like manner. Sounded a little
>> weird, but not badly distorted. The objective was to reduce the
>> average dissipation of the final stage, so smaller tubes and a lighter
>> duty power supply could be used.
>
>
> No, "controlled carrier" was something else.

A quick web search shows that what I described is properly called
"dynamic carrier control". My mistake. I only recall having seen one
such amateur transmitter, and it was over 40 years ago. . .

Roy Lewallen, W7EL

2504. Re: Intermediate Licence project

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-15 07:52:55 UTC
From: Hans Summers <hans.summers@tudor.com>
Message-ID: <2qqanmF11r73uU1@uni-berlin.de>
Source record: 23288

> If there really are people such as you claim, and you have
> not just invented them for the purpose of this discussion, then why
haven't
> they got a higher grade of licence?

I don't think you read my posting properly. I already told you, "every M3 I have met is on his way to the full license. Several have got theirs since I first knew them". Just one example immediately springs to mind without me even having to look up callsigns in my log: Ken M3NPD now M0RZZ.

I can imagine why many people wanting a full license might want to get an intermediate license first, so they could get on air whilst working for the full license. Seems to me to be quite a sensible approach. Others might become M3 because the full license seems daunting. When they get on air perhaps they'd be enthused enough to upgrade their license.

> You would seem to be describing a CBers-Masquerading-As-
> -Radio-Hams and not actually _REAL_ Radio Hams.

This comment shows you're not really thinking logically about all this, even if it is your genuinely held opinion. By your statement you're saying a full license holder can still be a Masquerading CB'er, because he isn't very involved technically. Conversely you would then have to concede that a technically able M3 was a real ham not a CB'er, regardless of his license class. I think you need to decide whether your sweeping generalisations are to define criteria based on license class, or on technical ability.

> I am not mocking anybody - your comment says more
> about you, perhaps, than it does about me?

Belittle would have perhaps been a better word. You are attempting to belittle others more worthy of the amatuer license than you are, and in the process you are demonstrating considerable expertise in self-belittlement...

73

Hans

CB'er Masquerading as Radio Ham, a.k.a. G0UPL (who has never owned or operated a commercial rig, and in gradually making my way higher in frequency from my start on 80m, is still some 17MHz short of the CB band...)

2505. Re: CB "Swing"? (proper AM modulation)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-15 13:06:37 UTC
From: Doug Smith W9WI <w9wi@invalid.invalid>
Message-ID: <41483E5D.5000509@invalid.invalid>
Source record: 23289

Roy Lewallen wrote:
> A quick web search shows that what I described is properly called
> "dynamic carrier control". My mistake. I only recall having seen one
> such amateur transmitter, and it was over 40 years ago. . .

I owned one, a Heath DX-60B. Got my General in 1974, DSB-carrier AM
phone was already essentially obsolete. When I got a 33 signal report
from a 40-meter station four miles away, I decided to stick to CW<grin>...

Seems to me there was a circuit for homebrewing dynamic carrier control
in the ARRL Handbook for awhile.
--
Doug Smith W9WI
Pleasant View (Nashville), TN EM66
http://www.w9wi.com

2506. Re: CB "Swing"? (proper AM modulation)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-15 13:23:48 UTC
From: Chris <REMOVEchris1379ME@bigfoot.com>
Message-ID: <EnX1d.771$gG4.611@newsread1.news.pas.earthlink.net>
Source record: 23290

So let's use a typical amp rated at 100 watts AM/CW/FM and 200 watts PEP on SSB. Assuming that the transmitter is modulated at 100%, how many watts should the carrier be?

Chris
"Roy Lewallen" <w7el@eznec.com> wrote in message
news:10kfhqv2vs9ge8e@corp.supernews.com...
| Chris wrote:
|
| >
| > To reduce the drive power to an amplifier and make the modulation louder.
| >
| > Chris
|
| I see. But reducing the carrier won't make the modulation louder, only
| more distorted.
|
| Well, let me back up a little. What I said is true if the modulation is
| 100%.
|
| But let's suppose that the transmitter is capable of only 50%
| modulation. In that case, you *can* make the modulation louder by
| increasing the amount of audio applied to the carrier. If the
| transmitter is fundamentally designed to handle 100% modulation, this
| would require only more audio gain or a "hotter" microphone. That would
| be the best way to make your modulation louder.
|
| But let's say that instead, you reduce the carrier from 4 watts to 1.
| Then the 1 watt carrier would be 100% modulated. (100% modulation of a 4
| watt carrier takes 2 watts. 50% modulation takes only 1/2 watt, which
| will modulate a 1 watt carrier 100%.) Now you have 100% modulation of
| the 1 watt carrier. There's the same amount of transmitted audio power
| as before -- 1/2 watt --, so you're really not making the audio any
| stronger, and no one will be able to copy you any better than before.
| (In fact, your weaker signal will have more trouble getting through in
| the presence of noise or interference.) But if you're the only signal
| being heard, the receiver's AGC (automatic gain control) will react to
| your weaker carrier by turning up the receiver's gain, making the audio
| sound louder. The person receiving your signal can make your audio just
| as loud with a 4 watt carrier by manually turning up the volume.
|
| So I'll relent and say that reducing the carrier might make your audio
| sound louder -- but only if your transmitter is undermodulated in the

| first place, there's no stronger signal to control the receiver AGC, and
| if you don't reduce the carrier so much that it makes the modulation
| exceed 100%. But your ability to get through interference and noise will
| probably be reduced.
|
| Roy Lewallen, W7EL

2507. Re: CB "Swing"? (proper AM modulation)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-15 13:52:53 UTC
From: Chris <REMOVEchris1379ME@bigfoot.com>
Message-ID: <VOX1d.780$gG4.285@newsread1.news.pas.earthlink.net>
Source record: 23291

Oh, how do you convert from WPEP to WRMS? Does it have to be converted to voltage and multiplied by .707?

Chris
"Chris" <REMOVEchris1379ME@bigfoot.com> wrote in message
news:EnX1d.771$gG4.611@newsread1.news.pas.earthlink.net...
| So let's use a typical amp rated at 100 watts AM/CW/FM and 200 watts PEP
on
| SSB. Assuming that the transmitter is modulated at 100%, how many watts
| should the carrier be?
|
| Chris
| "Roy Lewallen" <w7el@eznec.com> wrote in message
| news:10kfhqv2vs9ge8e@corp.supernews.com...
| | Chris wrote:
| |
| | >
| | > To reduce the drive power to an amplifier and make the modulation
| louder.
| | >
| | > Chris
| |
| | I see. But reducing the carrier won't make the modulation louder, only
| | more distorted.
| |
| | Well, let me back up a little. What I said is true if the modulation is
| | 100%.
| |
| | But let's suppose that the transmitter is capable of only 50%
| | modulation. In that case, you *can* make the modulation louder by
| | increasing the amount of audio applied to the carrier. If the
| | transmitter is fundamentally designed to handle 100% modulation, this
| | would require only more audio gain or a "hotter" microphone. That would
| | be the best way to make your modulation louder.
| |
| | But let's say that instead, you reduce the carrier from 4 watts to 1.
| | Then the 1 watt carrier would be 100% modulated. (100% modulation of a 4
| | watt carrier takes 2 watts. 50% modulation takes only 1/2 watt, which
| | will modulate a 1 watt carrier 100%.) Now you have 100% modulation of
| | the 1 watt carrier. There's the same amount of transmitted audio power
| | as before -- 1/2 watt --, so you're really not making the audio any
| | stronger, and no one will be able to copy you any better than before.
| | (In fact, your weaker signal will have more trouble getting through in
| | the presence of noise or interference.) But if you're the only signal

| | being heard, the receiver's AGC (automatic gain control) will react to
| | your weaker carrier by turning up the receiver's gain, making the audio
| | sound louder. The person receiving your signal can make your audio just
| | as loud with a 4 watt carrier by manually turning up the volume.
| |
| | So I'll relent and say that reducing the carrier might make your audio
| | sound louder -- but only if your transmitter is undermodulated in the
| | first place, there's no stronger signal to control the receiver AGC, and
| | if you don't reduce the carrier so much that it makes the modulation
| | exceed 100%. But your ability to get through interference and noise will
| | probably be reduced.
| |
| | Roy Lewallen, W7EL
|
|

2508. Re: CB "Swing"? (proper AM modulation)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-15 15:03:40 UTC
From: Chris <REMOVEchris1379ME@bigfoot.com>
Message-ID: <gRY1d.855$0i5.282@newsread3.news.pas.earthlink.net>
Source record: 23292

I think I've got it figured out. For AM, the carrier should be 1/8 of the PEP maximum or 1/4 of the max carrier. So an amp rated 100W AM/FM/CW, 200 WPEP SSB should run with a 25 W carrier on AM. Does that sound right to everyone?

Chris
"Chris" <REMOVEchris1379ME@bigfoot.com> wrote in message news:7WE1d.166$gG4.101@newsread1.news.pas.earthlink.net...
| I will probably get some flames from this but here it goes. I have been into
| CB radio for a number of years but don't agree with most of what I hear.
| That's just one of the reasons I'm looking to amateur radio. One of the
| things I often hear in CB circles is that one should turn a 4 watt AM radio
| down to 1 1/2 watts and let it "SWING". How is this possible? What really
| happens when you do this? I think I know. So, how much carrier should you
| have for an amp or final stage with a known max output. In other words, if
| it can produce 8 watts max unmodulated carrier, is a 4 watt carrier ideal?
| If it produces 100 watts, is 50 watts ideal? How much "space"does it need
| for proper modulation? Is there a website that explains this well? I'm an
| electronics tech thirsting for knowledge.
|
| Chris
|
|

2509. Re: Inviting Entries to Electronic Design Contest to win cash $100

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-15 16:45:29 UTC
From: Dave <DevarimNOSPAM@hotmail.com>
Message-ID: <2d31040b7cd4be612cf8a964d7be09be@news.meganetnews.com>
Source record: 23293

> Problem: Design DC. motor speed control circuit that is used to
> control the speed of direct current.

Control the SPEED of direct current??? Other than using wire of
different velocity factor or doping the conductor, I cannot think of
many ways you can do this! You can certainly make the motor
speed change (what's new with that idea?? PWM has been around
for half a century or more...), but ya'll ain't gonna do much about
the speed of electrons in a wire to any meaningful degree. And why
would you want to?? Electrons seem to work just fine at the speeds
they achieve in wire - so why not just leave them alone?

Dave

2510. Re: Intermediate Licence project

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-15 17:23:29 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2qrdgtF12nj74U1@uni-berlin.de>
Source record: 23294

Your Childish Broadcast (CB) below serves to classify you.

Ham Radio has traditions of gentlemanly conduct, traditions
which are sadly lost on you.

"Mike Andrews" <mikea@mikea.ath.cx> wrote in message
news:ci81fh$u4f$2@puck.litech.org...
> Welcome to my killfile. You, unlike Hans, have nothing to say, and you
> insist on saying it over and over at extreme length. I can think of
> nothing, including amateur radio, Usenet, and the human race, to which
> you are an ornament, and anything to which you are compared will be
> insulted.
>

2511. Re: Intermediate Licence project

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-15 17:24:53 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2qrdguF12nj74U2@uni-berlin.de>
Source record: 23295

But the M3 licence is no more a stepping stone to _REAL_ Ham
Radio than are other pursuits such as Needleworking and football
supporting.

"Hans Summers" <hans.summers@tudor.com> wrote in message
news:2qqanmF11r73uU1@uni-berlin.de...
> > If there really are people such as you claim, and you have
> > not just invented them for the purpose of this discussion, then why
> haven't
> > they got a higher grade of licence?
> I don't think you read my posting properly. I already told you, "every M3
I
> have met is on his way to the full license. Several have got theirs since
I
> first knew them". Just one example immediately springs to mind without me
> even having to look up callsigns in my log: Ken M3NPD now M0RZZ.
> I can imagine why many people wanting a full license might want to get an
> intermediate license first, so they could get on air whilst working for
the
> full license. Seems to me to be quite a sensible approach. Others might
> become M3 because the full license seems daunting. When they get on air
> perhaps they'd be enthused enough to upgrade their license.

2512. Re: Intermediate Licence project

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-15 17:29:55 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2qrdguF12nj74U3@uni-berlin.de>
Source record: 23296

If you want to be thought of as a CBer, then make personal
comments as you do below.

I do not have to, and neither do I, concede what you suggest. The
M3/CB Fools' Licence is judged by the entry standard, which
is no technical standard whatsoever. The few examples that
you _CLAIM_ do not change the essence of the M3/CB Licensee
class which is a Mongolian horde of non-technical turnip-brains,
who are the death of _REAL_ Ham Radio.

I am not making any sweeping generalisations, I am quoting facts.

Indeed, if you wish to be respected as a debating respondent, then
you would do well to avoid the rather silly and childish asides
that you are increasingly using, childish asides that are usually the
mark of a failing debater.

"Hans Summers" <hans.summers@tudor.com> wrote in message
news:2qqanmF11r73uU1@uni-berlin.de...
> > You would seem to be describing a CBers-Masquerading-As-
> > -Radio-Hams and not actually _REAL_ Radio Hams.
>
> This comment shows you're not really thinking logically about all this,
even
> if it is your genuinely held opinion. By your statement you're saying a
full
> license holder can still be a Masquerading CB'er, because he isn't very
> involved technically. Conversely you would then have to concede that a
> technically able M3 was a real ham not a CB'er, regardless of his license
> class. I think you need to decide whether your sweeping generalisations
are
> to define criteria based on license class, or on technical ability.

2513. Re: Intermediate Licence project

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-15 17:36:04 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2qrdgvF12nj74U4@uni-berlin.de>
Source record: 23297

I am neither mocking nor belittling - your comment says more
about you, perhaps, than it does about me?

Once again you are resorting to a rather silly and childish line
in personal remarks, remarks which would tend to classify you as a CBer,
because Ham Radio has traditions of gentlemanly conduct which
are sadly lost on you. Because of your emotive and immature stance
it is unlikely that anyone reading this NG would mistake you
for a Radio Ham.

It is not a question of belittlement nor of mocking, merely one
of taxonomy.

I welcome and encourage everybody, irrespective of their background
to become technically interested and thus become suitable candidates
for _REAL_ Ham Radio. Those that do not become technically
motivated simply are not _REAL_ Radio Hams. They are something
else, probably CBers. Those whose pursuit is football supporting and
nothing else are clearly not Radio Hams, but it not a matter of mocking
nor is a matter of belittling to classify them as non-Hams.

"Hans Summers" <hans.summers@tudor.com> wrote in message
news:2qqanmF11r73uU1@uni-berlin.de...
> > I am not mocking anybody - your comment says more
> > about you, perhaps, than it does about me?
> Belittle would have perhaps been a better word. You are attempting to
> belittle others more worthy of the amatuer license than you are, and in
the
> process you are demonstrating considerable expertise in
self-belittlement...

2514. Re: CB "Swing"? (proper AM modulation)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-15 19:17:15 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10kh59ubgpebo77@corp.supernews.com>
Source record: 23198

Chris wrote:

> So let's use a typical amp rated at 100 watts AM/CW/FM and 200 watts PEP on
> SSB. Assuming that the transmitter is modulated at 100%, how many watts
> should the carrier be?
>
> Chris

Zero. As universally used, SSB means "single sideband suppressed carrier". There is no transmitted carrier in this mode.

And, modulation percentage has no meaning when talking about SSB, since it refers to the relationship between the modulation and the carrier.

Roy Lewallen, W7EL

2515. Re: CB "Swing"? (proper AM modulation)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-15 19:20:10 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10kh5fd92i0vo6a@corp.supernews.com>
Source record: 23199

Chris wrote:

> Oh, how do you convert from WPEP to WRMS? Does it have to be converted to
> voltage and multiplied by .707?
>
> Chris

While the conversion from PEP to RMS is simple for a sine wave or other simple waveform, it's not simple when dealing with a real voice waveform. It depends heavily on the characteristics of the voice, and any audio processing (such as compression or RF clipping) that might be taking place. Typically, the PEP value of an unprocessed voice waveform is many times the RMS value.

Roy Lewallen, W7EL

2516. Re: CB "Swing"? (proper AM modulation)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-15 19:58:59 UTC
From: Philip de Cadenet <Philstheboss@thebbc.fslife.co.uk>
Message-ID: <HfbhmDUD8JSBFw$5@philstheboss.freeserve.co.uk>
Source record: 23200

>There is no limit to AM modulation, it is not limited to 100 percent
>in the positive direction. It is limited to 100 percent in the negative
>direction, to prevent cutoff. Positive limits are set by the mdoulation
>linearity of the output stage with increasing positive voltage.
>Most AM BC broadcasters in this country use assemtrical modulation
>for this reason.

You're dead right of course Peter.

i believe you're AM broadcasters are limited to 125% positive while here
in the UK we have 100% positive peak limit.

FYI the late model Nautel PDM broadcast transmitters are capable of
around 200% positive peak and up to 50KHz in frequency response!

Broadcast transmitters are limited for obvious reasons.
--
Philip de Cadenet G4ZOW
Transmitters 'R' Us
http://www.transmittersrus.com

2517. Re: Wattmeter Location

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-16 04:14:24 UTC
From: hexter@blazenet.net
Message-ID: <10ki4p0i83o2h1b@corp.supernews.com>
Source record: 23201

In article <20040913172137.22107.00003471@mb-m07.aol.com>, jgboyles@aol.com
says...
>
>Hi,
> I am contemplating a pep reading wattmeter so I can check the output of my
HB
>amplifier. Consequently, I am putting it right on the output of the amp. The
>output of the amp should always see 50 ohms because it will be feeding either
a
>50 ohm dummy load, or an ATU tuned to 50 ohms. With that in mind, I am simply
>using a resistive voltage divider, to get a voltage sample, and squaring it
>with an AD633 multiplier. This seems like a simple, cheap way to get watt
>info. assuming you will always be working into a near 50 ohm resistive load.
> Anyone see any reason why this will not give you a pretty good indication of
>your power output? I realize that the load may not always be exactly 50 ohms,
>and that there are losses in the ATU.
> The reason I have not tried getting a current sample and using the
>conventional VI COS Theta with the multiplier is due to the additional
>complexity of circuitry. It is also difficult to get accurate current samples
>over a wide frequency range. By making everything resistive it somewhat takes
>the frequency dependency out of the problem. Thanks.
>73 Gary N4AST

Resistive dividers don't work worth a crap at rf, unless you use
non-inductive resistors, and then you must consider that your input
to the squaring circuit will have some capacitance to ground, who's
ability to screw up your higher frequency readings will be astronomical.
Why the squaring circuit?

Bottom line is this, all the resistive ladders I have played with
were worthless unless they contained capacitive compensation, which
can be found only by trial and error. I prefer a 'T' connection with
a good quality 'coaxial pad' of 10 db, then I feed it to my Tek 2215A
scope. It's deadly accurate from D.C. to at least 30mhz. More accurate
than any of my inline wattmeters, with the exception of the 'BIRD', and
that is only good across the spectrum of the slug I use.

2518. Re: That pesky 7238 kHz CW signal

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-16 04:30:30 UTC
From: hexter@blazenet.net
Message-ID: <10ki5n62tcb2pa2@corp.supernews.com>
Source record: 23202

In article <Dd6dnWGJXrWdNd7cRVn-gA@comcast.com>, jdwalton@comcast.net says...
>
>From the ARRL's saturday morning missive:
>
>==>"INTRUDER SIGNAL" ON 40 METERS REMAINS A MYSTERY FOR NOW
>
>An unidentified signal that's been showing up on the 40-meter phone band
>on or about 7238 kHz has mystified amateurs in the western US and Canada,
>where it's been heard frequently for the past few weeks. Although it
>resembles a steady carrier, a closer inspection suggests that the
>intruding signal actually is a series of closely spaced signals. Don
>Moman, VE6JY, in Edmonton, Alberta, says the signal is quite loud at his
>QTH.
>
>"This signal looks a lot more interesting than it would sound--just a
>broad tone/hum/buzz, depending on where you tune," he said. One
>spectrogram from VE6JY showed perhaps a half-dozen or more discrete
>signals. "It's certainly loud enough out here, peaking broadly
>south-southwest from Edmonton," he said. Moman was using a 5-element Yagi
>and was hearing the signal at 10 dB over S9.
>
>That conforms with observations reported by Bob Gonsett, W6VR, at
>Communications General Corp (CGC). He says engineers at the CGC lab in
>Fallbrook, California took a quick look at the intruder September 6 at
>around 2120 UTC and found "several close-spaced CW carriers--perhaps from
>one specially modulated transmitter, perhaps from transmitters at
>different locations," he reported. CGC reported the signals appeared on
>7238.063, 7238.150, 7238.237 and 7238.412 kHz, with the 7238.237 kHz
>signal being "the strongest of the group."
>
>While no one's sure what it is, the FCC HF Direction Finding Facility has
>been able to determine that it's coming from somewhere north of Prescott,
>Arizona, and west of Interstate 17. FCC monitoring indicates the "buzz" is
>centered on 7238.1 kHz with a bandwidth of about 1 kHz and spikes spaced
>at about 90 Hz apart.
>
>Reports to the International Amateur Radio Union Region 2 Monitoring
>System indicate the signal has been heard from about 1700 to 2130 UTC,
>although Moman reported hearing it at around 0300 UTC and said the signal
>even went off the air for a few seconds while he was listening to it. Jack
>Roland, KE0VH, in Colorado also heard the signals for a couple of evenings
>this week. "Something is not right there," he remarked.
>
>High Noon Net Manager Bill Savage, N5FLD, in Albuquerque, New Mexico said

>several net participants--in Nebraska, Colorado, Nebraska, Wyoming,
>Minnesota and Arizona--were able to hear the mystery signal.
>
So, like the Russian Woodpecker, just swamp it with about 10 hams
running full legal limit, and keying quickly, and randomly. Maybe
you can chase it away. Or maybe find it's source, and destroy it,
and it's owners. It continues to piss me off that 'official' agencies
think nothing of plopping signals right in the middle of amatuer
bands, and shitting on us, even thought there are rules that forbid
such uses of our frequencies. Gee, wasn't it possible for the signal's
owner to put it over 7.300 mhz. Screw them with a capital F.
I used to love to drive the woodpecker crazy. It was easy to chase it
out of the ham bands. Maybe we can make the 'mystery' signal
useless to it's owners. Now why is it that 'they' could find us
quicker than 'they' can find the mistery signal and eliminate it???
Hahaha, wish I still had access to some 500kw Navy shorebased
rhombic stuff. Although the rhombics probably would not be facing
the correct direction. At one time I may have been able to swamp
their receiver into oblivian.

Just the ramblings of another pissed off ham who hates folks using
hambands 'without our prior consent'.

2519. Re: Help me choose a tv/video capture device

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-16 04:35:04 UTC
From: hexter@blazenet.net
Message-ID: <10ki5vopjvg7457@corp.supernews.com>
Source record: 23203

In article <9607k01mkt6kkbd67aj0gaql83tnokvn6p@4ax.com>, sdeyoreo@hotmail.com says...
>
>Looking fo something in uSB2. I've been looking at ratings on
>VideoHelp.com. It seems like someone has a problem with every device.
>Some picture quality is bad, some crash, some drivers blow... Anyone
>using anything thats works and installs good? I'm running WinXP on P4
>@ 3.0 Ghz, 1Gb DDR, dual SATA drives in RAID0.

Why waste your time with USB2 for video. Stick an internal
ATI card on your AGP or PCI buss. USB for video capture? Foolish
and wasteful, do it wideside with DMA bursting. Why stick your
marbles into a hose one by one, when you can throw your marbles
32 at a time???

2520. Re: Is it possible to modify this radio? kenwood tr-7850

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-16 04:42:36 UTC
From: hexter@blazenet.net
Message-ID: <10ki6ds1entps5e@corp.supernews.com>
Source record: 23204

In article <lyK0d.34291$%m4.3101902@read2.cgocable.net>,
dontbotherwithit@hotmail.com says...
>
>Hi I'm a little new to this news group, have been reading through it for a
>few only a few weeks. I recently bought a Kenwood tr-7850 at a low price and
>it works great, but, it would be even better if i could use it to monitor
>slightly lower frequences used by fire and police. Did a thourough check of
>the web for out of band mods for this radio and had no success at all. Does
>anyone have any info on how to do this or a schematic for this radio? Thanks
>
There was a radio mod guy who came around to the east coast fests. He had
a mod that flipped the transmit and receive vco's. Your 7850 would then
receive 10.7 higher than indicated, but with reduced sensetivity. You could
select modified/normal opration by wiring this mod through one of the
'priority' switches on the front panel. I made this mod to my kw TR-2400
HT and it worked well. The vco's for the TR-7850 are not totally unrelated.

Best of luck.

2521. Re: That pesky 7238 kHz CW signal

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-16 04:50:27 UTC
From: Jer <scams@fraudwatchinternational.com>
Message-ID: <nY82d.2005$OB2.1647@twister.socal.rr.com>
Source record: 23205

If you would 'google' it up, you would find that the military prempts the FCC and can operate just about anywhere they want without 'permission' from the FCC. I found some military stuff right in the middle of our 450 band a couple years ago, and challenged the operator. He was only to glad to give me a phone number to call, which I did, I ended up at a military base talking to a high ranking officer who directed me to several web sites that explained it all. He was right, they were legal, and I was supposed to 'bug off' whenever I heard them even though my ham license said I could operate there. The FCC couldn't do a thing about it...

Jer

"gudmundur" <hexter@blazenet.net> wrote in message
news:10ki5n62tcb2pa2@corp.supernews.com...
> In article <Dd6dnWGJXrWdNd7cRVn-gA@comcast.com>, jdwalton@comcast.net
> says...
>>
>>From the ARRL's saturday morning missive:
>>
>>==>"INTRUDER SIGNAL" ON 40 METERS REMAINS A MYSTERY FOR NOW
>>
>>An unidentified signal that's been showing up on the 40-meter phone band
>>on or about 7238 kHz has mystified amateurs in the western US and Canada,
>>where it's been heard frequently for the past few weeks. Although it
>>resembles a steady carrier, a closer inspection suggests that the
>>intruding signal actually is a series of closely spaced signals. Don
>>Moman, VE6JY, in Edmonton, Alberta, says the signal is quite loud at his
>>QTH.
>>
>>"This signal looks a lot more interesting than it would sound--just a
>>broad tone/hum/buzz, depending on where you tune," he said. One
>>spectrogram from VE6JY showed perhaps a half-dozen or more discrete
>>signals. "It's certainly loud enough out here, peaking broadly
>>south-southwest from Edmonton," he said. Moman was using a 5-element Yagi
>>and was hearing the signal at 10 dB over S9.
>>
>>That conforms with observations reported by Bob Gonsett, W6VR, at
>>Communications General Corp (CGC). He says engineers at the CGC lab in
>>Fallbrook, California took a quick look at the intruder September 6 at
>>around 2120 UTC and found "several close-spaced CW carriers--perhaps from
>>one specially modulated transmitter, perhaps from transmitters at
>>different locations," he reported. CGC reported the signals appeared on
>>7238.063, 7238.150, 7238.237 and 7238.412 kHz, with the 7238.237 kHz
>>signal being "the strongest of the group."
>>

>>While no one's sure what it is, the FCC HF Direction Finding Facility has
>>been able to determine that it's coming from somewhere north of Prescott,
>>Arizona, and west of Interstate 17. FCC monitoring indicates the "buzz" is
>>centered on 7238.1 kHz with a bandwidth of about 1 kHz and spikes spaced
>>at about 90 Hz apart.
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>>Reports to the International Amateur Radio Union Region 2 Monitoring
>>System indicate the signal has been heard from about 1700 to 2130 UTC,
>>although Moman reported hearing it at around 0300 UTC and said the signal
>>even went off the air for a few seconds while he was listening to it. Jack
>>Roland, KE0VH, in Colorado also heard the signals for a couple of evenings
>>this week. "Something is not right there," he remarked.
>>
>>High Noon Net Manager Bill Savage, N5FLD, in Albuquerque, New Mexico said
>>several net participants--in Nebraska, Colorado, Nebraska, Wyoming,
>>Minnesota and Arizona--were able to hear the mystery signal.
>>
> So, like the Russian Woodpecker, just swamp it with about 10 hams
> running full legal limit, and keying quickly, and randomly. Maybe
> you can chase it away. Or maybe find it's source, and destroy it,
> and it's owners. It continues to piss me off that 'official' agencies
> think nothing of plopping signals right in the middle of amatuer
> bands, and shitting on us, even thought there are rules that forbid
> such uses of our frequencies. Gee, wasn't it possible for the signal's
> owner to put it over 7.300 mhz. Screw them with a capital F.
> I used to love to drive the woodpecker crazy. It was easy to chase it
> out of the ham bands. Maybe we can make the 'mystery' signal
> useless to it's owners. Now why is it that 'they' could find us
> quicker than 'they' can find the mistery signal and eliminate it???
> Hahaha, wish I still had access to some 500kw Navy shorebased
> rhombic stuff. Although the rhombics probably would not be facing
> the correct direction. At one time I may have been able to swamp
> their receiver into oblivian.
>
> Just the ramblings of another pissed off ham who hates folks using
> hambands 'without our prior consent'.
>
>

2522. WTB 8877 amp

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-16 05:04:05 UTC
From: The Tube Man <thetubeman@earthlink.net>
Message-ID: <9992d.3188$mb6.537@newsread3.news.atl.earthlink.net>
Source record: 23206

I want to buyan amp that I can use to test 8877, so looks not that
important, but price and working condition is!
Please Email info to me at:
thetubeman@earthlink.net

2523. Tek 2754P

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-16 05:24:04 UTC
From: rfgelitronics <no_spam@nowhere.com>
Message-ID: <Ur92d.16134$QJ3.13520@newssvr21.news.prodigy.com>
Source record: 23218

Hello everybody:

Does anybody have a copy of the service manuals Vol I and II for a Tek 2754P spectrum analyzer?
Or any place where I could get them?

Any review of the 2754P?? I just got one......it nees a little bit of work.......

Thank you

2524. Re: Wattmeter Location

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-16 05:33:50 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10ki9e21u5kvu6a@corp.supernews.com>
Source record: 23207

The problem with a plain resistive divider is that the detector (or, in the case of a scope probe, the scope input) invariably has an associated shunt C. Without compensation, the lower arm of the divider gets less voltage than it should, due to that shunt C. If the capacitive reactance is high compared to the resistance of the lower divider arm at the highest frequency of interest, then you can probably get by without shunt capacitors. But otherwise, you need to make a compensated attenuator by putting C across at least the upper divider arm.

The rule for making a compensated divider is that the time constants of the top and bottom should be equal. That is, R1C1 = R2C2 where R1 and C1 are the parallel R and C at the bottom of the divider, and R2 and C2 at the top.

This kind of divider has a theoretically flat frequency response, that is, the voltage at the tap is constant assuming that the voltage applied to the top of the divider is constant. But there's the rub. The impedance of the divider is *not* constant with frequency -- because of the C, it decreases as frequency increases. So depending on the circuit it's put across, above some frequency the divider will begin disturbing the circuit being measured due to the divider's too-low impedance. Consequently, the design procedure is usually to first minimize the detector or load C. This allows you to use the smallest possible C in the top part of the divider, resulting in minimized loading of the circuit to be measured. In general, you don't want to add physical C to the lower part of the divider, unless the load (detector) C is variable, unpredictable, or nonlinear, which requires it to be swamped by a known, fixed, good-quality C.

Even such a simple circuit isn't trivial, if very accurate division and wide frequency response (or fast and low-aberration time response) are required. "Hook", "soak", and other nonlinear effects are well-known to designers of oscilloscope front ends, as are the tricks and skills necessary to avoid them. But these problems are much worse for high impedance dividers than ones designed to operate in a low impedance environment like 50 ohms.

Roy Lewallen, W7EL

gudmundur wrote:
>
> Resistive dividers don't work worth a crap at rf, unless you use
> non-inductive resistors, and then you must consider that your input
> to the squaring circuit will have some capacitance to ground, who's
> ability to screw up your higher frequency readings will be astronomical.
> Why the squaring circuit?

>
> Bottom line is this, all the resistive ladders I have played with
> were worthless unless they contained capacitive compensation, which
> can be found only by trial and error. I prefer a 'T' connection with
> a good quality 'coaxial pad' of 10 db, then I feed it to my Tek 2215A
> scope. It's deadly accurate from D.C. to at least 30mhz. More accurate
> than any of my inline wattmeters, with the exception of the 'BIRD', and
> that is only good across the spectrum of the slug I use.
>

2525. Re: That pesky 7238 kHz CW signal

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-16 05:34:14 UTC
From: dplatt@radagast.org
Message-ID: <10ki9em9fu98e74@corp.supernews.com>
Source record: 23208

In article <nY82d.2005$OB2.1647@twister.socal.rr.com>,
Jer <scams@fraudwatchinternational.com> wrote:

>If you would 'google' it up, you would find that the military prempts the
>FCC and can operate just about anywhere they want without 'permission' from
>the FCC. I found some military stuff right in the middle of our 450 band a
>couple years ago, and challenged the operator. He was only to glad to give
>me a phone number to call, which I did, I ended up at a military base
>talking to a high ranking officer who directed me to several web sites that
>explained it all. He was right, they were legal, and I was supposed to 'bug
>off' whenever I heard them even though my ham license said I could operate
>there. The FCC couldn't do a thing about it...

For the 420-450 band in particular (and many of the other UHF bands as
well), the FCC's allocation of these bands to the amateur radio
service is "secondary", with government users being the "primary".
Amateurs "must not interfere" with the government users and "must
tolerate" interference from government users. There are certain other
services which have been granted "primary" use of these bands in
certain parts of the country, as well, and amateurs must not interfere
with these.

FWIW, I didn't see any indication in the ARRL article which suggested
that the 7238 kHz carrier cluster is from a government operation, and
as the signal doesn't appear to be actually carrying significant
intelligence in its carrier or sidebands it may just be some odd piece
of equipment which has started oscillating strangely.

I'll be really interested to learn what it eventually turns out to be.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

2526. Linear HF amp using 807's

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-16 07:46:59 UTC
From: ablight@alphalink.com.au
Message-ID: <1fc7b362.0409152346.351e52ea@posting.google.com>
Source record: 23209

A subject got sidetracked a while ago, with numerous people getting nostalgic about the boxes of old 807's they had sitting around waiting to be used - has anyone built a HF linear using these things - and not QRP or max 100watts - found one reference to 4 of them in // giving 250 watts - getting there , but a bit more power out, perhaps? - any pointers to info or sites - there MUST be a use for these things, I have been hoarding them for 30 years now!
73 de VK3BFA Andrew

2527. Re: Intermediate Licence project

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-16 07:49:40 UTC
From: Hans Summers <hans.summers@tudor.com>
Message-ID: <2qsuskF12bt1sU1@uni-berlin.de>
Source record: 23210

I do humbly apologise, I am clearly in desperate need of a good period of solitary monastic study alone with my Oxford dictionary. I appear to have completely misunderstood the meaning of such words as mocking, belittling or taxonomy.

Any M3'ers listening... please be advised that:

You are all CB Fools
You are a Mongolian horde of non-technical turnip-brains
You are the death of real ham radio
You are comparable to needleworkers and football supporters

Gareth G4SDW, in the best traditions of gentlemanly amateur radio conduct, has spoken. Of course, he is not mocking you, nor belittling you. How could you ever think such a thing? On the contrary, he is welcoming and encouraging you enthusiastic newcomers into the world of amateur radio.

73

Hans G0UPL

Childish failed debater, emotive and immature CB'er masquerading as radio ham.
a.k.a. G0UPL.
Pass the morse key

"Airy R. Bean" <me@privacy.net> wrote in message
news:2qrdguF12nj74U3@uni-berlin.de...
> If you want to be thought of as a CBer, then make personal
> comments as you do below.
>
> I do not have to, and neither do I, concede what you suggest. The
> M3/CB Fools' Licence is judged by the entry standard, which
> is no technical standard whatsoever. The few examples that
> you _CLAIM_ do not change the essence of the M3/CB Licensee
> class which is a Mongolian horde of non-technical turnip-brains,
> who are the death of _REAL_ Ham Radio.
>
> I am not making any sweeping generalisations, I am quoting facts.
>
> Indeed, if you wish to be respected as a debating respondent, then
> you would do well to avoid the rather silly and childish asides
> that you are increasingly using, childish asides that are usually the
> mark of a failing debater.
>
> "Hans Summers" <hans.summers@tudor.com> wrote in message

> news:2qqanmF11r73uU1@uni-berlin.de...
> > > You would seem to be describing a CBers-Masquerading-As-
> > > -Radio-Hams and not actually _REAL_ Radio Hams.
> >
> > This comment shows you're not really thinking logically about all this,
> even
> > if it is your genuinely held opinion. By your statement you're saying a
> full
> > license holder can still be a Masquerading CB'er, because he isn't very
> > involved technically. Conversely you would then have to concede that a
> > technically able M3 was a real ham not a CB'er, regardless of his
license
> > class. I think you need to decide whether your sweeping generalisations
> are
> > to define criteria based on license class, or on technical ability.
>
>

2528. Re: Intermediate Licence project

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-16 08:24:06 UTC
From: darleyput@hotmail.com
Message-ID: <cibijcmtc1@newsg2.svr.pol.co.uk>
Source record: 23211

Ham Radio has traditions of gentlemanly conduct,
traditions which are sadly lost on you.

The CB using 4 be 4 countryside path damaging foolish mates, you associate
with too I shouldn't wonder

2529. Re: Intermediate Licence project

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-16 08:30:53 UTC
From: mike@corn2.freeserve.co.uk
Message-ID: <41494e1c.301487182@news.freeserve.net>
Source record: 23212

On Thu, 16 Sep 2004 08:49:40 +0100, "Hans Summers"
<hans.summers@tudor.com> wrote:

>
>I do humbly apologise, I am clearly in desperate need of a good period of
>solitary monastic study alone with my Oxford dictionary. I appear to have
>completely misunderstood the meaning of such words as mocking, belittling or
>taxonomy.
Hans, thankyou for clarifying the situation so succinctly. I just knew
I must have got the wrong end of the stick over Gareths posts, both
here and on uk.radio.amateur :-)

Mike W, G8NXD aka M3MSM qthr

2530. Re: Linear HF amp using 807's

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-16 09:27:49 UTC
From: Ralph Mowery <rmowery28146@earthlink.net>
Message-ID: <p0d2d.3294$mb6.1859@newsread3.news.atl.earthlink.net>
Source record: 23213

"Andrew VK3BFA" <ablight@alphalink.com.au> wrote in message
news:1fc7b362.0409152346.351e52ea@posting.google.com...
> A subject got sidetracked a while ago, with numerous people getting
> nostalgic about the boxes of old 807's they had sitting around waiting
> to be used - has anyone built a HF linear using these things - and not
> QRP or max 100watts - found one reference to 4 of them in // giving
> 250 watts - getting there , but a bit more power out, perhaps? - any
> pointers to info or sites - there MUST be a use for these things, I
> have been hoarding them for 30 years now!
> 73 de VK3BFA Andrew

About 25 years ago a place was maiking 27 mhz CB amplifiers using them in combinations of 4 to 12 of the 1625 tubes, the 12 volt version of the 807. They would put out about 25 watts of carrier for each tube used. The circuit used was push pull. It seemed to be a copy of a design in a very old QST (maybe a 50's version) design . I don't know how clean the output was but the amplifier sounded fine on the receiving end. I would guess that for ssb you could push the output to 3 or 4 times this ammount.

2531. Re: Another hopeless text: spot the errors...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-16 11:15:02 UTC
From: John Stewart <jh.stewart@sympatico.ca>
Message-ID: <414975B6.931E66CF@sympatico.ca>
Source record: 23216
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design,alt.binaries.schematics.electronic

Tim Wescott wrote:

> Roy Lewallen wrote:
> > Gary S. wrote:
> >
> >> On Thu, 09 Sep 2004 20:09:55 GMT, "Tom Donaly"
> >> <dtdonaly@sbcglobal.net> wrote:
> >>
> >>>
> >>> They (the politicians) were relying on that vast storehouse of
> >>> scientific information, the
> >>> Bible, for their instruction.
> >>> 73,
> >>> Tom Donaly, KA6RUH
> >>
> >>
> >>
> >> I missed that part. Guess it would be in the Book of Numbers.
> >> . . .
> >
> >
> > Actually, it's in I Kings vii.23 and II Chronicles iv.2:
> >
> > "Also, he made a molten sea of ten cubits from brim to brim, round in
> > compass, and five cubits the height thereof; and a line of thirty cubits
> > did compass it round about."
> >
> > In _A History of Pi_ by Petr Beckmann, the author states (p. 174) that
> > "There is a story about some American legislature having considered a
> > bill to legislate, for religious reasons, the biblical value of pi = 3.
> > I have found no confirmation of this story; very probably it grew out of
> > an episode that actually took place in the State Legislature of Indiana
> > in 1897." He describes the incident. . .
> >
> > A bill was introduced in the Indiana House in 1897 which said in the
> > preamble:
> >
> > "A bill for an act introducing a new mathematical truth and offered as a
> > contribution to education to be used only by the State of Indiana free
> > of cost by paying any royalties whatever on the same, provided it is
> > accepted and adopted by the official action of the legislature in 1897."
> >
> > In Section 1, the value of pi is effectively declared to be about 9.2.

> > In Section 2, it's said to be exactly 3.2. The bill was referred
> > ["perhaps symbolically", muses Beckmann] to the House Committee on Swamp
> > Lands, which passed it to the Committee of Education, which reported it
> > back to the House "with recommendation that said bill do pass." On Feb.
> > 5, 1897, the Indiana House passed it unanimously.
> >
> > A charitable person would speculate that, like our current legislators
> > and the more recent Patriot Act, they just didn't trouble themselves to
> > read it before voting.
> >
> > It was saved from passage by the Senate by the intervention of a Purdue
> > math professor named Waldo who, horrified when learning about it,
> > coached the senators.
> >
> > History repeats itself. Now political interests are being used to
> > modify, distort, ignore, and contradict scientific findings. And Kansas
> > is once again attempting to legislate against the teaching of evolution.
> > Some things never change.
> >
> > Roy Lewallen, W7EL
>
> In some states (Oregon included, IIRC), pi _is_ legally equal to three
> -- at least for the purposes of calculating the number of board feet in
> a log, and most likely as an informed decision to make calculation easier.
>
> --
>
> Tim Wescott
> Wescott Design Services
> http://www.wescottdesign.com

PI - 3 = Sawdust Cheers, JLS

2532. Re: Another hopeless text: spot the errors...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-16 11:18:08 UTC
From: John Stewart <jh.stewart@sympatico.ca>
Message-ID: <41497670.740DEC60@sympatico.ca>
Source record: 23217
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design,alt.binaries.schematics.electronic

Tim Wescott wrote:

> In some states (Oregon included, IIRC), pi _is_ legally equal to three
> -- at least for the purposes of calculating the number of board feet in
> a log, and most likely as an informed decision to make calculation easier.
>
> --
>
> Tim Wescott
> Wescott Design Services
> http://www.wescottdesign.com

PI - 3 = Sawdust Cheers, JLS

2533. Re: Linear HF amp using 807's

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-16 11:20:48 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <kGe2d.33750$KU5.29372@edtnps89>
Source record: 23214

You're kidding, right?

The 807 was the most-used amplifier tube in history. It still beats the 6146 in popularity, given the time it was used. From audiophile tube amps, to RF modulators to RF linears and class-C self excited power oscillators, the 807 was/is there :-)

RF schematics are all over. Check Google, check the ARRL Handbook, CB websites and pirate radio websites.

Russia and China still make it. Russian ones are the best and called G-807.

If you want to play with an 807 at audio, for all practical purposes, it's a 6L6GC ;-)

--
Gregg t3h g33k
"Ratings are for transistors....tubes have guidelines"
http://geek.scorpiorising.ca

2534. Re: That pesky 7238 kHz CW signal

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-16 11:25:43 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <XKe2d.33770$KU5.7747@edtnps89>
Source record: 23215

Behold, gudmundur signalled from keyed 4-1000A filament:

> So, like the Russian Woodpecker, just swamp it with about 10 hams
> running full legal limit, and keying quickly, and randomly. Maybe you
> can chase it away.

I've always wondered why it's called the "Russian" woodpecker when it's
really US Navy OTH-B RADAR???

--
Gregg t3h g33k
"Ratings are for transistors....tubes have guidelines"
http://geek.scorpiorising.ca

2535. Re: Tek 2754P

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-16 14:33:22 UTC
From: Dino Papas <kl0s@cox.net>
Message-ID: <kl0s-874C24.10332216092004@news.west.cox.net>
Source record: 23219

Try Deanne Kidd at:

dektyr@teleport.com

I got my 2754 manuals from him (and several others).

Good luck!

Dino KL0S/4

In article <Ur92d.16134$QJ3.13520@newssvr21.news.prodigy.com>,
"rfgelitronics" <no_spam@nowhere.com> wrote:

> Hello everybody:
>
> Does anybody have a copy of the service manuals Vol I and II for a Tek 2754P
> spectrum analyzer?
> Or any place where I could get them?
>
> Any review of the 2754P?? I just got one......it nees a little bit of
> work.......
>
> Thank you

2536. Re: That pesky 7238 kHz CW signal

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-16 15:17:46 UTC
From: hexter@blazenet.net
Message-ID: <10kjbkqm4lk6u2c@corp.supernews.com>
Source record: 23220

In article <XKe2d.33770$KU5.7747@edtnps89>, nospam@unknown.org says...
>
>Behold, gudmundur signalled from keyed 4-1000A filament:
>
>> So, like the Russian Woodpecker, just swamp it with about 10 hams
>> running full legal limit, and keying quickly, and randomly. Maybe you
>> can chase it away.
>
>I've always wondered why it's called the "Russian" woodpecker when it's
>really US Navy OTH-B RADAR???
>
>--
>Gregg t3h g33k
>"Ratings are for transistors....tubes have guidelines"
>http://geek.scorpiorising.ca

Yes, In fact the Navy, and other groups operated American OTH radar
sites on the west coast. However, at the time (mid 70's to mid 80's)
the Russians (USSR) either had a similar OTH radar system, or, at
least realized they could key a high power array at 10hz and boone doggel
the American OTH. Perhaps the Russians had no return echo screens,
and no radar system at all, but they loved sending those annoying
clicks easterly off their eastern shores.

RDM7 1975-1996 (Moffet Naval Air Station)

2537. Re: Intermediate Licence project

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-16 16:07:57 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2qtsnbF13i35eU1@uni-berlin.de>
Source record: 23221

That doesn't seem at all logical for the persons that you
claimed to be so far in advance.

"Hans Summers" <hans.summers@tudor.com> wrote in message
news:2qqanmF11r73uU1@uni-berlin.de...
> I can imagine why many people wanting a full license might want to get an
> intermediate license first, so they could get on air whilst working for
the
> full license

2538. Re: Intermediate Licence project

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-16 16:12:35 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2qtsncF13i35eU2@uni-berlin.de>
Source record: 23222

Let's take a parallel here - there are some doctors who are absolute quacks and duffers despite their training. There are several unqualified quacks, reflexologists, aromatherapists, herbalists, folk mediciners, etc, who are actually quite interested in how the human body works.Logically, from the argument that you present below, you would be quite happy for any of these latter unqualified but enthusiastic quacks to operate upon you?

"Hans Summers" <hans.summers@tudor.com> wrote in message news:2qqanmF11r73uU1@uni-berlin.de...
> This comment shows you're not really thinking logically about all this, even
> if it is your genuinely held opinion. By your statement you're saying a full
> license holder can still be a Masquerading CB'er, because he isn't very
> involved technically. Conversely you would then have to concede that a
> technically able M3 was a real ham not a CB'er, regardless of his license
> class.

2539. Re: Intermediate Licence project

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-16 16:15:14 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2qtsncF13i35eU3@uni-berlin.de>
Source record: 23223

Well said, that man!

"Hans Summers" <hans.summers@tudor.com> wrote in message
news:2qsuskF12bt1sU1@uni-berlin.de...
> Any M3'ers listening... please be advised that:
> You are all CB Fools
> You are a Mongolian horde of non-technical turnip-brains
> You are the death of real ham radio
> You are comparable to needleworkers and football supporters

2540. Re: Is it possible to modify this radio? kenwood tr-7850

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-16 16:41:59 UTC
From: animalinstincts <notmyrealemail@hotmail.com>
Message-ID: <Dhj2d.2358$CC3.71099@read2.cgocable.net>
Source record: 23224

Sounds like an interesting mod. I guess it works by piping a copy of the tx osc output into the PLL output and disabling the built in PLL. I have the schematic and block diagram for this radio now and might give it a shot. Not too worried about senstivety, seems like every gov't transmission puts the meter in the red. Currently I put dip switches in the PLL so i can select what Mhz i want manually (khz is done through the panel), however this only works to 148.490 then at 148.500 for some reason it needs to roll over and go from loading about 2780 to 4096, rather than 2781 , 2782 etc. Not sure why it does that or how it could still work a mere 10khz higher with that dramatic shift, but thats how it was designed and it does work for some reason.

"gudmundur" <hexter@blazenet.net> wrote in message
news:10ki6ds1entps5e@corp.supernews.com...
> In article <lyK0d.34291$%m4.3101902@read2.cgocable.net>,
> dontbotherwithit@hotmail.com says...
> >
> >Hi I'm a little new to this news group, have been reading through it for
a
> >few only a few weeks. I recently bought a Kenwood tr-7850 at a low price
and
> >it works great, but, it would be even better if i could use it to monitor
> >slightly lower frequences used by fire and police. Did a thourough check
of
> >the web for out of band mods for this radio and had no success at all.
Does
> >anyone have any info on how to do this or a schematic for this radio?
Thanks
> >
> There was a radio mod guy who came around to the east coast fests. He had
> a mod that flipped the transmit and receive vco's. Your 7850 would then
> receive 10.7 higher than indicated, but with reduced sensetivity. You
could
> select modified/normal opration by wiring this mod through one of the
> 'priority' switches on the front panel. I made this mod to my kw TR-2400
> HT and it worked well. The vco's for the TR-7850 are not totally
unrelated.
>
> Best of luck.
>

2541. HF amplifier with PNP

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-16 16:50:20 UTC
From: PaoloC <ollollo@hotpop.com>
Message-ID: <2qtufgF14ac31U1@uni-berlin.de>
Source record: 23225

Hi,
I feel a little lazy today, and Mr. Google didn't return anything useful
to my searches.

Can anyone point me to a circuit diagram of an HF amplifier that uses a
PNP transistor instead of NPN?

I know that they behave the opposite, but unfortunately I haven't been
designing BJT amplifiers in the past years and I'm now a bit lost.

I have some spare PNP power transistors with a decent GBW (or ft), and
I'd like to see what happens if I use them as the PA stage of my
homebrew CW transmitters.

Thanks,
Paolo IK1ZYW

2542. Re: Linear HF amp using 807's

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-16 17:29:35 UTC
From: Ken Scharf <wa2mzeNOTTHIS@bellsouth.net>
Message-ID: <06k2d.166191$%n4.141222@bignews6.bellsouth.net>
Source record: 23226

Gregg wrote:
> You're kidding, right?
>
> The 807 was the most-used amplifier tube in history. It still beats the
> 6146 in popularity, given the time it was used. From audiophile tube amps,
> to RF modulators to RF linears and class-C self excited power oscillators,
> the 807 was/is there :-)
>
> RF schematics are all over. Check Google, check the ARRL Handbook, CB
> websites and pirate radio websites.
>
> Russia and China still make it. Russian ones are the best and called
> G-807.
>
> If you want to play with an 807 at audio, for all practical purposes, it's
> a 6L6GC ;-)
>
There are MANY variations on the 807. The 807 is actually a 6L6G with
a plate cap. The 6L6GC has a bit more plate rating than the 6L6.
The 6BG6G/6BG6GA sweep tube is an 807 with an octal base, minus some
sheilding.
The 1625 is an 807 with a medium 7 pin base and a 12.6 volt heater.
The 807W is a smaller squat glass version of the 807 that is more
rugged. It can be pushed harder.

Some 1625's and 807's had the beam deflection plates (suppressor)
brought through the glass with their own wire lead connected to
the cathode at the base. You can debase these tubes and connect the
suppressor to it's own pin (1625) or tie it to one of the
grids (807) and then run the tube in true grounded grid operation.
There were quite a few linears in the 50's built this way.

I recall one amp used a voltage quadrupler to get 600 volts from
the 120v ac line and had 10 tubes with the heaters wired in series.
One tube was a driver, and 9 were grounded grid finals.
(A bit of a shock hazzard perhaps.)

2543. Re: HF amplifier with PNP

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-16 17:44:47 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2qu272F147e3vU1@uni-berlin.de>
Source record: 23227

I found the appended article on the Google record, which may assist you.....

"PaoloC" <ollollo@hotpop.com> wrote in message
news:2qtufgF14ac31U1@uni-berlin.de...
> Can anyone point me to a circuit diagram of an HF amplifier that uses a
> PNP transistor instead of NPN?
> I know that they behave the opposite, but unfortunately I haven't been
> designing BJT amplifiers in the past years and I'm now a bit lost.

-----OOOOO-----

>In article <34438934.391ABB4C@technologist.com>, ianho@technologist.com
>writes...
>Hi,
> Would you please tell me what transistor do and how to do
>so? What is the difference between PNP transistor and NPN
>transistor? What is the concept of using a transistor as a
>switch? Thanks a lot.

SemiConductor Theory

(c) 1997 by Gareth Alun Evans

A transistor is rather like the human alimentary canal, after the
typical USA diet of burgers and chips; - it constipates, as do
semiconductor diodes with no applied bias - the available holes get
filled in and nothing can move.
The base current is like a small application of laxative; some of
the constipation passes through, until the effect of the laxative wears
off. The total throughput depends upon the Mobility. By applying a
continuous feed of laxative, then a continuous current passes through.
Applying too much laxative results in saturation - ie, there is a limit
to the maximum throughput, depending on the external circuit; in this
case, the maximum rate at which you can feed in the burgers at one end.
(If you are a customer of MacDonalds's, here in Chippenham, Wiltshire,
UK then this rate is very low - I have been there twice, and both times,
the service was *APPALLING*.)
The difference between PNP and NPN is the direction. In the old
days, PNP was used, whereby one injected from the rear end, using a sort
of huge syringe - hence PNP - "Put-in Near Poo". More recently NPN is
more common, where the laxative is entered via a carrier of some sort,
usually chocolate and so we have NPN - "Now Pleasant Nutrient".
Despite the adverse effects, the USA diet of burgers and chips
carries on, and recourse has to be made once again to the chocolate. Now
the ratio of the carriers of the constipation, the burgers and chips, is
much higher than that of the chocolate. Thus they are referred to as the

Majority Carriers and the Minority Carriers. If you indulge too much, you find that the vendor will provide you with a paper bag, known as an Excess Carrier.
More recently, there are problems with impurities and you find that the opposite effect occurs. You have no time to reach home before diarrhoea takes over. You have no option but to stop the car and nip over a gate into a field. Hence the Field Effect Transistor. This time you have to inject something to STOP the flow. Now, assuming that there was a certain control over events; nothing happened until the Gate was encountered, you then became the Source of flow, and the field itself acted as the Drain. What was originally dirt, became grass, was consumed by the Cow, you ate it as a burger, and it has now returned to the topsoil, an effect known in the trade as Surface Recombination.
(Incidentally, did you know that Diarrhoea is hereditary? Apparently it runs in the jeans.)
Some of the impurities accumulate in your rear end, and no matter how valiently you try, you cannot rid yourself of them. Hence In-de-Bum is known as a Try-Valient Impurity. In the same way, Arse-nic, well known for its ill-effects and accumulation in the body tissues is known as a Pent-Up-Valient Impurity.

--
73's etc de Gareth G4SDW (nee G8DXY) GQRP 3339

2544. Re: Linear HF amp using 807's

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-16 18:03:44 UTC
From: artie <artie.m@gmail.com>
Message-ID: <160920041103444380%artie.m@gmail.com>
Source record: 23228

In article <1fc7b362.0409152346.351e52ea@posting.google.com>, Andrew
VK3BFA <ablight@alphalink.com.au> wrote:

> A subject got sidetracked a while ago, with numerous people getting
> nostalgic about the boxes of old 807's they had sitting around waiting
> to be used - has anyone built a HF linear using these things - and not
> QRP or max 100watts - found one reference to 4 of them in // giving
> 250 watts - getting there , but a bit more power out, perhaps? - any
> pointers to info or sites - there MUST be a use for these things, I
> have been hoarding them for 30 years now!
> 73 de VK3BFA Andrew

The thing that immediately pops to mind about an old 807-based
push-pull parallel amp (6 tubes) was that it was a #$!!*% to
neutralize!

--
Namaste--

2545. Re: Linear HF amp using 807's

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-16 18:49:36 UTC
From: Ken Scharf <wa2mzeNOTTHIS@bellsouth.net>
Message-ID: <7hl2d.66060$Np2.40836@bignews4.bellsouth.net>
Source record: 23229

artie wrote:
> In article <1fc7b362.0409152346.351e52ea@posting.google.com>, Andrew
> VK3BFA <ablight@alphalink.com.au> wrote:
>
>
>>A subject got sidetracked a while ago, with numerous people getting
>>nostalgic about the boxes of old 807's they had sitting around waiting
>>to be used - has anyone built a HF linear using these things - and not
>>QRP or max 100watts - found one reference to 4 of them in // giving
>>250 watts - getting there , but a bit more power out, perhaps? - any
>>pointers to info or sites - there MUST be a use for these things, I
>>have been hoarding them for 30 years now!
>>73 de VK3BFA Andrew
>
>
> The thing that immediately pops to mind about an old 807-based
> push-pull parallel amp (6 tubes) was that it was a #$!!*% to
> neutralize!
>
Cross over neutralization circuit should be simple
to set up. A six tube 807 circuit should have about
the same g-p cap as say a 2 tube 811A setup, though
a bit more output C (would be absorbed into the tank
though). Trick with 807's is to sub mount the tubes
below the chassis so the bottom of the plate
is just a hair above the chassis. This lets the chassis
serve as a shield between the plate and the grid circuits.
Millen sold a tube shield for the 807 that would do the
same thing with the socket mounted at chassis level.

2546. Miami area Ham or Radio Tech/Engineer?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-16 19:25:02 UTC
From: NCSRadio <careyfisher@ncsradio.com>
Message-ID: <OLI2d.166332$%n4.145609@bignews6.bellsouth.net>
Source record: 23230
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

We're looking for a ham or experienced radio technician/engineer in the Miami area to help a customer of ours to install some audio switching equipment in his company's radio operation. He does HF aircraft communication. He lost his technician and needs to hire someone to get our equipment installed and working.

Anybody in the Miami area with good technical skills need a short term job?

Email me and we'll go from there.

Thanks,

Carey Fisher
Chief Technical Officer
New Communications Solutions, LLC
5364 Valley Mist Trace
Norcross, GA 30092
careyfisher@ncsradio.com
Toll Free Tel & Fax: 888-883-5788
www.ncsradio.com

Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.756 / Virus Database: 506 - Release Date: 9/8/2004

2547. Re: HF amplifier with PNP

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-16 19:40:08 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10kjr0t9e4uqs08@corp.supernews.com>
Source record: 23231

Connect it exactly the same as you would an NPN, but reverse the polarity of the power supply voltage. If there's a bias circuit using a diode, the diode (and bias supply polarity, if it's a separate supply) should also be reversed.

If it's necessary for you to use the PNP with a positive supply voltage, it's still possible, but it complicates the circuit, and adequate bypassing becomes essential and sometimes difficult. In that case, a diagram (and preferably a layout) of a known working circuit is desirable.

All other things being equal, a PNP generally has lower ft and higher capacitance than an NPN, which is probably why they're less commonly used. This difference is due to the basic physics of the device (lower mobility of the carriers, as I recall).

Roy Lewallen, W7EL

PaoloC wrote:
> Hi,
> I feel a little lazy today, and Mr. Google didn't return anything useful
> to my searches.
>
> Can anyone point me to a circuit diagram of an HF amplifier that uses a
> PNP transistor instead of NPN?
>
> I know that they behave the opposite, but unfortunately I haven't been
> designing BJT amplifiers in the past years and I'm now a bit lost.
>
> I have some spare PNP power transistors with a decent GBW (or ft), and
> I'd like to see what happens if I use them as the PA stage of my
> homebrew CW transmitters.
>
> Thanks,
> Paolo IK1ZYW

2548. Re: HF amplifier with PNP

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-16 19:55:19 UTC
From: Nimrod <mighty@hunter.com>
Message-ID: <2qu9d0F13udbdU1@uni-berlin.de>
Source record: 23232

"Airy R. Bean" <me@privacy.net> wrote in message
news:2qu272F147e3vU1@uni-berlin.de...
>I found the appended article on the Google record, which may assist
>you.....
>
> SemiConductor Theory
> --------------------
> (c) 1997 by Gareth Alun Evans
>
Now be a good little boy Gareth and admit you and "Airy" are one and the
same.

You know it makes sense.

2549. Re: That pesky 7238 kHz CW signal

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-16 20:01:39 UTC
From: bg998@FreeNet.Carleton.CA
Message-ID: <cicrf3$8co$1@freenet9.carleton.ca>
Source record: 23233

gudmundur (hexter@blazenet.net) writes:

> I used to love to drive the woodpecker crazy. It was easy to chase it
> out of the ham bands.

The Woodpecker changed frequency all the time anyway, whether anyone tried to interfere with it or not. It was part of their operational plan. And the pulses carried a PSK coded pattern to make it easier to recover the returned echoes, sorting them out of the interference. I doubt very much that anyone could really interfere with them when they operated.

... Martin VE3OAT

2550. Re: That pesky 7238 kHz CW signal

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-16 20:42:30 UTC
From: mcalhoun@ksu.edu
Message-ID: <cictrm$5m@unix1.cc.ksu.edu>
Source record: 23236

>.... I found some military stuff right in the middle of our 450 band a
>couple years ago, and challenged the operator. He was only to glad to give
>me a phone number to call, which I did, I ended up at a military base
>talking to a high ranking officer ....

My experience locally was on two meters, but the high-ranking officer
said that if/when it happened again, I should call him and ask to have
their frequency(ies) changed to something that didn't interfere with
whatever we were using.

--Myron.
--
Five boxes preserve our freedoms: soap, ballot, witness, jury, and cartridge
PhD EE (retired). "Barbershop" tenor. CDL(PTXS). W0PBV. (785) 539-4448
NRA Life Member and Certified Instructor (Home Firearm Safety, Rifle, Pistol)

2551. Re: CB "Swing"? (proper AM modulation)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-16 20:44:41 UTC
From: Uncle Peter <radioconnectionNO@cox.netSPAM>
Message-ID: <TWm2d.1050$iK2.839@lakeread08>
Source record: 23234

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:10kfpkqb76jce78@corp.supernews.com...
> Doug Smith W9WI wrote:
> > Roy Lewallen wrote:
> >
> >> It sounds like a technique I remember calling "controlled carrier".
> >> The carrier power was reduced when you weren't talking, then was
> >> increased with the audio in an AGC-like manner. Sounded a little
> >> weird, but not badly distorted. The objective was to reduce the
> >> average dissipation of the final stage, so smaller tubes and a lighter
> >> duty power supply could be used.
> >
> >
> > No, "controlled carrier" was something else.
>
> A quick web search shows that what I described is properly called
> "dynamic carrier control". My mistake. I only recall having seen one
> such amateur transmitter, and it was over 40 years ago. . .
>
> Roy Lewallen, W7EL

The Heath DX-60 used "controlled carrier" modulation. It was a
form of screen modulation.

Pete

2552. Re: CB "Swing"? (proper AM modulation)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-16 20:46:47 UTC
From: Uncle Peter <radioconnectionNO@cox.netSPAM>
Message-ID: <RYm2d.1051$iK2.264@lakeread08>
Source record: 23235

"Chris" <REMOVEchris1379ME@bigfoot.com> wrote in message
news:gRY1d.855$0i5.282@newsread3.news.pas.earthlink.net...
> I think I've got it figured out. For AM, the carrier should be 1/8 of the
> PEP maximum or 1/4 of the max carrier. So an amp rated 100W AM/FM/CW, 200
> WPEP SSB should run with a 25 W carrier on AM. Does that sound right to
> everyone?
>
>

The peak power on AM is 4 times the carrier power. But, don't forget, AM
has TWO sidebands, not one.

Pete

2553. Re: Linear HF amp using 807's

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-16 20:48:36 UTC
From: mcalhoun@ksu.edu
Message-ID: <cicu74$8v@unix1.cc.ksu.edu>
Source record: 23237

...>nostalgic about the boxes of old 807's they had sitting around waiting
>to be used - has anyone built a HF linear using these things - and not
>QRP or max 100watts ....

I can't find it right now, but somewhere I have an article from a ham
magazine that used TEN of them (actually 1625's), with their filaments
series'd across the 120-volt mains and their outputs paralleled on one
of the lower ham bands.

I, too, have been saving them and will find the round tuit someday.

--Myron.
--
Five boxes preserve our freedoms: soap, ballot, witness, jury, and cartridge
PhD EE (retired). "Barbershop" tenor. CDL(PTXS). W0PBV. (785) 539-4448
NRA Life Member and Certified Instructor (Home Firearm Safety, Rifle, Pistol)

2554. Re: HF amplifier with PNP

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-16 21:02:00 UTC
From: Uncle Peter <radioconnectionNO@cox.netSPAM>
Message-ID: <7bn2d.1053$iK2.1007@lakeread08>
Source record: 23238

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:10kjr0t9e4uqs08@corp.supernews.com...
> Connect it exactly the same as you would an NPN, but reverse the
> polarity of the power supply voltage. If there's a bias circuit using a
> diode, the diode (and bias supply polarity, if it's a separate supply)
> should also be reversed.
>
> If it's necessary for you to use the PNP with a positive supply voltage,
> it's still possible, but it complicates the circuit, and adequate
> bypassing becomes essential and sometimes difficult. In that case, a
> diagram (and preferably a layout) of a known working circuit is desirable.
>
> All other things being equal, a PNP generally has lower ft and higher
> capacitance than an NPN, which is probably why they're less commonly
> used. This difference is due to the basic physics of the device (lower
> mobility of the carriers, as I recall).
>
> Roy Lewallen, W7EL
>
>

I always wondered why Motorola (of all peopled) used PNP RF
transistors in the final and two driver stages in their Micor base
station and mobile radios.

Pete

2555. Re: HF amplifier with PNP

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-16 21:51:50 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10kk2nr6q9k9dc@corp.supernews.com>
Source record: 23239

Uncle Peter wrote:
>
> I always wondered why Motorola (of all peopled) used PNP RF
> transistors in the final and two driver stages in their Micor base
> station and mobile radios.
>

Were those perhaps germanium transistors? The first Ge transistors were PNP, and the first (Ge) audio power transistors I recall seeing in wide use, in auto radios, were PNP. I'm not sure why PNP was favored in the early days, whether due to some basic physics reason or some more practical processing or production considerations.

Roy Lewallen, W7EL

2556. Re: That pesky 7238 kHz CW signal

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-16 21:57:30 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10kk32f996t8a85@corp.supernews.com>
Source record: 23240

I kind of chuckled at the thought of a handful of gnat-like hams chasing out the 800 pound gorilla Woodpecker. It's reminiscent of the guy doing the little dance. When asked why, he said, "to chase away the lions". "But," came the response, "there aren't any lions within thousands of miles." "See, it works, doesn't it?" said the dancing man.

As Martin points out, the Woodpecker would sit at one frequency for a while, then jump to another -- I heard it many times. But I hadn't realized there were people out there congratulating themselves for chasing it off when it did make one of its frequency jumps.

Roy Lewallen, W7EL

Martin Potter wrote:

> gudmundur (hexter@blazenet.net) writes:
>
>
>>I used to love to drive the woodpecker crazy. It was easy to chase it
>>out of the ham bands.
>
>
> The Woodpecker changed frequency all the time anyway, whether anyone tried
> to interfere with it or not. It was part of their operational plan. And
> the pulses carried a PSK coded pattern to make it easier to recover the
> returned echoes, sorting them out of the interference. I doubt very much
> that anyone could really interfere with them when they operated.
>
> ... Martin VE3OAT
>
>

2557. Modifying KL-40 for higher input

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-16 22:07:04 UTC
From: Chris <REMOVEchris1379ME@bigfoot.com>
Message-ID: <c8o2d.2081$0i5.1597@newsread3.news.pas.earthlink.net>
Source record: 23241

I am looking for a way to modify an RM KL-40 to accept higher input. Please look at http://www.rmitaly.com/rm/download/manuals/KL40-manual_rel_400.pdf for the schematic. I can put a voltage divider where R2 and R3 are but I have one concern. This would put a resistor in parallel (to DC) with R1, which is between the gate of the MOSFET and ground. Will this affect the circuit?

Thanks,
Chris

2558. Re: HF amplifier with PNP

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-16 22:42:11 UTC
From: clifto <clifto@clifto.com>
Message-ID: <3fhp12-4ni.ln1@remote.clifto.com>
Source record: 23242

Roy Lewallen wrote:
> I'm not sure why PNP was favored in the
> early days, whether due to some basic physics reason or some more
> practical processing or production considerations.

I always had the distinct impression it was processing/production
considerations.

--
Frank Abagnale on "Rathergate" (the CBS forgery scandal):
"If my forgeries looked as bad as the CBS documents, [the movie "Catch Me If
You Can"] would have been 'Catch Me In Two Days'."

2559. Re: HF amplifier with PNP

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-16 22:44:36 UTC
From: Uncle Peter <radioconnectionNO@cox.netSPAM>
Message-ID: <jHo2d.1058$iK2.351@lakeread08>
Source record: 23243

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:10kk2nr6q9k9dc@corp.supernews.com...
> Uncle Peter wrote:
> >
> > I always wondered why Motorola (of all peopled) used PNP RF
> > transistors in the final and two driver stages in their Micor base
> > station and mobile radios.
> >
>
> Were those perhaps germanium transistors? The first Ge transistors were
> PNP, and the first (Ge) audio power transistors I recall seeing in wide
> use, in auto radios, were PNP. I'm not sure why PNP was favored in the
> early days, whether due to some basic physics reason or some more
> practical processing or production considerations.
>
> Roy Lewallen, W7EL

Hello Roy

These fairly modern devices, with 211-xx style flange mounts. Although
they were marked with Motorola Communications inhouse numbers,
they appear to have been part of the general Motorola RF transistor
family, with complimentary NPN equivalents.

pete

2560. Re: CB "Swing"? (proper AM modulation)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-16 22:45:08 UTC
From: Uncle Peter <radioconnectionNO@cox.netSPAM>
Message-ID: <PHo2d.1059$iK2.265@lakeread08>
Source record: 23244

"Chris" <REMOVEchris1379ME@bigfoot.com> wrote in message
news:7WE1d.166$gG4.101@newsread1.news.pas.earthlink.net...
> I will probably get some flames from this but here it goes. I have been
into
> CB radio for a number of years but don't agree with most of what I hear.
> That's just one of the reasons I'm looking to amateur radio. One of the
> things I often hear in CB circles is that one should turn a 4 watt AM
radio
> down to 1 1/2 watts and let it "SWING". How is this possible? What really
> happens when you do this? I think I know. So, how much carrier should you
> have for an amp or final stage with a known max output. In other words, if
> it can produce 8 watts max unmodulated carrier, is a 4 watt carrier ideal?
> If it produces 100 watts, is 50 watts ideal? How much "space"does it need
> for proper modulation? Is there a website that explains this well? I'm an
> electronics tech thirsting for knowledge.
>
> Chris
>
>

2561. Re: CB "Swing"? (proper AM modulation)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-16 22:46:19 UTC
From: Uncle Peter <radioconnectionNO@cox.netSPAM>
Message-ID: <VIo2d.1060$iK2.394@lakeread08>
Source record: 23245

"Chris" <REMOVEchris1379ME@bigfoot.com> wrote in message
news:7WE1d.166$gG4.101@newsread1.news.pas.earthlink.net...
> I will probably get some flames from this but here it goes. I have been
into
> CB radio for a number of years but don't agree with most of what I hear.
> That's just one of the reasons I'm looking to amateur radio. One of the
> things I often hear in CB circles is that one should turn a 4 watt AM
radio
> down to 1 1/2 watts and let it "SWING > Chris
>
>

By "swing", do you mean a slight upwards kick on the power meter
when you're modulating the radio? IFIC, many CB'ers strove for
upward modulation.

Pete

2562. Re: Linear HF amp using 807's

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-16 23:06:34 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <fu6kk09fmamkg0moctcb4dm0krneev2ivs@4ax.com>
Source record: 23246

On Thu, 16 Sep 2004 07:40:25 -0700, Bill Turner <noway@nohow.com>
wrote:

>
>The problem with 807's is that having only a 25 watt plate dissipation
>rating and running a pair in a linear with about 66% efficiency, you're
>only going to get out about 100 watts. Today's generic transceiver
>already puts out that much, and if you're looking for an HF "brick" for
>a QRP rig, solid state is a better way to go.
>
>On the other hand, a nostalgia-driven project could be lots of fun.
>
>Back in the olden days they were a useful tube, but not so much anymore.
>Too bad.

the more important limiting parameter for application as ssb linear
amplifier is max cathode current.

It could be mentioned that 4-65 has the same max PEP input as 4-125
because the cathodes are the same

-jm

J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

2563. Re: Is it possible to modify this radio? kenwood tr-7850

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-16 23:09:11 UTC
From: animalinstincts <notmyrealemail@hotmail.com>
Message-ID: <CYo2d.2379$CC3.80749@read2.cgocable.net>
Source record: 23247

Hey if anyone is curious i finally did figure this out with a help from a guy in japan. I was using binary to calculate the numbers when they were encoded in BCD. I redid the math in BCD and now it makes sense, 148.49 is actually 999 and 148.5 is actually 1000 not 4096 as it would be in binary,

"animalinstincts" <notmyrealemail@hotmail.com> wrote in message news:Dhj2d.2358$CC3.71099@read2.cgocable.net...
> Sounds like an interesting mod. I guess it works by piping a copy of the tx
> osc output into the PLL output and disabling the built in PLL. I have the
> schematic and block diagram for this radio now and might give it a shot. Not
> too worried about senstivety, seems like every gov't transmission puts the
> meter in the red. Currently I put dip switches in the PLL so i can select
> what Mhz i want manually (khz is done through the panel), however this only
> works to 148.490 then at 148.500 for some reason it needs to roll over and
> go from loading about 2780 to 4096, rather than 2781 , 2782 etc. Not sure
> why it does that or how it could still work a mere 10khz higher with that
> dramatic shift, but thats how it was designed and it does work for some
> reason.
>

2564. Toriod winding

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-16 23:49:59 UTC
From: David Duxbury <dduxbury@cogeco.ca>
Message-ID: <CEp2d.2990$eL6.2709@read1.cgocable.net>
Source record: 23148

Good day I am putting together a Vectronics 80 Meter Transceiver Kit , the problem I have is winding the T50-2 toroid , the instructions state to wind 40 turns of 24 gauge wire, would that be two passes of twenty as forty on a single pass is nigh impossible. Help would be appreciated.

2565. Re: That pesky 7238 kHz CW signal

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-16 23:58:19 UTC
From: bg998@FreeNet.Carleton.CA
Message-ID: <cid9ar$ot3$1@freenet9.carleton.ca>
Source record: 23149

"Jer" (scams@fraudwatchinternational.com) writes:
> If you would 'google' it up, you would find that the military prempts the
> FCC and can operate just about anywhere they want without 'permission' from
> the FCC. I found some military stuff right in the middle of our 450 band a
> couple years ago, and challenged the operator.

In general, the military everywhere like to rely on Article 38 of the ITU Conventions.

The first para of Article 38 pretty much says the military radio installations of any country can do whatever they want.

But the second para says "Nevertheless these installations must so far as possible observe statutory provisions relative to ... the measures to be taken to prevent harmful interference [to other services] ..."

Many military people are like other people I know (present company excepted of course HI) - as soon as they find something they like, they stop reading, so they never get to the second paragraph of Article 38.

It may be worth reminding them occasionally that ITU Article 38 is not a blank cheque.

... Martin VE3OAT

2566. Re: HF amplifier with PNP

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-17 00:13:07 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10kkb0n5jdf9c0a@corp.supernews.com>
Source record: 23150

Hm, y'got me, then.

Maybe they had a big stock of them left over from a canceled project, so decreed that the engineer had to design them in so they'd get used up.

That sort of thing does happen. . .

Roy Lewallen, W7EL

Uncle Peter wrote:
>
> Hello Roy
>
> These fairly modern devices, with 211-xx style flange mounts. Although
> they were marked with Motorola Communications inhouse numbers,
> they appear to have been part of the general Motorola RF transistor
> family, with complimentary NPN equivalents.
>
> pete
>
>
>

2567. Re: Toriod winding

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-17 00:47:25 UTC
From: Scott <acepilot@bloomer.net>
Message-ID: <146dnZb_o6kdrtfcRVn-pg@bright.net>
Source record: 23151

Remember, each time the wire passes through the core is counted as a turn. In other words, just passing the wire straight through the core is one turn. 24 gauge wire should be fairly easy to get 40 turns in a single pass. Toroids are usually wound about 330 degrees around (a 30 degree gap between start and end of winding)...

Scott

David Duxbury wrote:

> Good day I am putting together a Vectronics 80 Meter Transceiver Kit
> , the problem I have is winding the T50-2 toroid , the instructions
> state to wind 40 turns of 24 gauge wire, would that be two passes of
> twenty as forty on a single pass is nigh impossible. Help would be
> appreciated.

--
Scott
http://corbenflyer.tripod.com/
Building RV-4
Gotta Fly or Gonna Die

2568. Re: Toriod winding

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-17 00:49:28 UTC
From: David Duxbury <dduxbury@cogeco.ca>
Message-ID: <nwq2d.3197$eL6.2752@read1.cgocable.net>
Source record: 23152

Hi Scott I have tried and no way can i get 40 turns in without
overlapping, also is it correct to wind on only 80 percent of the core

Scott wrote:
> Remember, each time the wire passes through the core is counted as a
> turn. In other words, just passing the wire straight through the core
> is one turn. 24 gauge wire should be fairly easy to get 40 turns in a
> single pass. Toroids are usually wound about 330 degrees around (a 30
> degree gap between start and end of winding)...
>
> Scott
>
>
> David Duxbury wrote:
>
>> Good day I am putting together a Vectronics 80 Meter Transceiver
>> Kit , the problem I have is winding the T50-2 toroid , the
>> instructions state to wind 40 turns of 24 gauge wire, would that be
>> two passes of twenty as forty on a single pass is nigh impossible.
>> Help would be appreciated.
>
>

2569. Re: Toriod winding

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-17 01:58:12 UTC
From: "Harold E. Johnson" <W4ZCB@mchsi.com>
Message-ID: <Uwr2d.57678$MQ5.27440@attbi_s52>
Source record: 23153

> >Good day I am putting together a Vectronics 80 Meter Transceiver Kit
> >, the problem I have is winding the T50-2 toroid , the instructions
> >state to wind 40 turns of 24 gauge wire, would that be two passes of
> >twenty as forty on a single pass is nigh impossible. Help would be
> >appreciated.
>
Bad Instructions! You can't get 40 turns of 24 on a T50 core in a single layer. Go to #26 or even 28. It won't change the inductance appreciably for the same number of turns, and you can space it properly. Given just the number of turns, you probably won't be within 10 percent of the desired inductance anyway.

W4ZCB

2570. Re: Linear HF amp using 807's

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-17 02:34:33 UTC
From: ablight@alphalink.com.au
Message-ID: <1fc7b362.0409161834.bf848eb@posting.google.com>
Source record: 23154

Gregg <nospam@unknown.org> wrote in message news:<kGe2d.33750$KU5.29372@edtnps89>...
> You're kidding, right?
>
> The 807 was the most-used amplifier tube in history. It still beats the
> 6146 in popularity, given the time it was used. From audiophile tube amps,
> to RF modulators to RF linears and class-C self excited power oscillators,
> the 807 was/is there :-)
>
> RF schematics are all over. Check Google, check the ARRL Handbook, CB
> websites and pirate radio websites.
>
> Russia and China still make it. Russian ones are the best and called
> G-807.
>
> If you want to play with an 807 at audio, for all practical purposes, it's
> a 6L6GC ;-)

No, I am not kidding - if I wanted to use them at audio thats simple enough - havent been able to find many references to them via Google - perhaps you could post a few? - and most designs of the 50's in push pull had bugger all output filtering so were not up to todays more rigorous standards for spectral purity. As well, were reltively low powered. My dilemma is with simple aerials I can hear stations 5 by 9 but they cant here me on a band where everyone is running 400w plus with gain directional antennas. Sure, could buy a Yaesu FL2100, but the price of tubes is outrageous (by my standards, anyway) and the amps using 4CX series are even more so. The Ameritron stuff using 811's look better, but dont have any of them in the junk box - this IS a homebrew website, after all.

Have built in the past with 807's, from fading memeory 2 tubes in push pull would give about 60 watts - since most modern HF rigs give 100 watts, there is little point in doing a design like that except for nostalgia.

I should clarify my question - they are available dirt cheap, (sometimes free) power supply requirements are relatively modest (at 750v plate) and they are certainly more rugged and forgiving than modern ceramic tubes.

And I know the evolution of the things, thats basic radio history.

73 de VK3BFA Andrew

2571. Re: FA:Heathkit Variable voltage bench power supply

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-17 03:14:50 UTC
From: kf5oj1@bellsouth.net
Message-ID: <414a568e.6725406@news.lig.bellsouth.net>
Source record: 23155

1 Hour left!

Thanks for looking.

On Mon, 13 Sep 2004 03:40:00 GMT, kf5oj1@bellsouth.net (Clifton
Turner) wrote:

>Heathkit IP-2728 variable voltage/current supply. No reserve and
>reasonable shipping. Please see at:
>
>http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=5720246098

2572. Re: Toriod winding

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-17 04:02:09 UTC
From: John Popelish <jpopelish@rica.net>
Message-ID: <414A61C1.1E428B3E@rica.net>
Source record: 23156

David Duxbury wrote:
> Scott wrote:
> > Remember, each time the wire passes through the core is counted as a
> > turn. In other words, just passing the wire straight through the core
> > is one turn. 24 gauge wire should be fairly easy to get 40 turns in a
> > single pass. Toroids are usually wound about 330 degrees around (a 30
> > degree gap between start and end of winding)...
>
> Hi Scott I have tried and no way can i get 40 turns in without
> overlapping, also is it correct to wind on only 80 percent of the core

If you have to overlap turns, overlap adjacent ones, rather than go with two layers. this lowers the additional inter winding capacitance. In effect, you get a single layer on the outside of the core and a double layer on the inside. Have you used the trick of making a bobbin out of a plastic straw or wood splint and notched the ends so wire can be wrapped over the ends? It makes it very much easier to pass a length of wire through the hole, lots of times, without dragging the whole length through for each turn.

You can also tack each turn down on the outside corners of the core with a little drop of instant glue, but you have to be really careful to not glue your fingers to the inductor.

--
John Popelish

2573. Help fixing Weller EC2002A Soldering Station

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-17 04:34:38 UTC
From: **THE-RFI-EMI-GUY** <rhyolite@nettally.com>
Message-ID: <cidpj8$5ga$1@news.utelfla.com>
Source record: 23157
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.repair

Help, my beloved 20 year old Weller EC2002A Soldering Station has cr@pped out! Although it seems to heat up normally and can even be adjusted, the display only flashes "Err" briefly when turned on. I checked the thermistor in the iron and it seems to be OK. I even bought a used newer but junky looking EC2002-0 controller, but it seems to have other problems and has different parts inside so a swap is not in order.

How does one fix these?
TIA

--
Joe Leikhim K4SAT
"The RFI-EMI-GUY"

The Lost Deep Thoughts By: Jack Handey
Before a mad scientist goes mad, there's probably a time when he's only partially mad. And this is the time when he's going to throw his best parties.

2574. Re: That pesky 7238 kHz CW signal

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-17 04:56:31 UTC
From: hexter@blazenet.net
Message-ID: <10kkrjvft73via9@corp.supernews.com>
Source record: 23158

In article <10kk32f996t8a85@corp.supernews.com>, w7el@eznec.com says...
>
>I kind of chuckled at the thought of a handful of gnat-like hams chasing
>out the 800 pound gorilla Woodpecker. It's reminiscent of the guy doing
>the little dance. When asked why, he said, "to chase away the lions".
>"But," came the response, "there aren't any lions within thousands of
>miles." "See, it works, doesn't it?" said the dancing man.
>
>As Martin points out, the Woodpecker would sit at one frequency for a
>while, then jump to another -- I heard it many times. But I hadn't
>realized there were people out there congratulating themselves for
>chasing it off when it did make one of its frequency jumps.
>
>Roy Lewallen, W7EL

And any of these times that you listened, had you ever heard anyone
intentionally messing with it?? Yes, it would sit a while then move
to some other frequency. But it would sit much shorter if you screwed
with it. Geez, there were even articles written on exactly the keying
rate to chase it away. A kw and a beam on 40, and a keying rate of
just about 10hz would chase it out almost instantly, and if it came
back in short order, a second chase usually drove it off for the rest
of the evening.

>
>Martin Potter wrote:
>
>> gudmundur (hexter@blazenet.net) writes:
>>
>>
>>>I used to love to drive the woodpecker crazy. It was easy to chase it
>>>out of the ham bands.
>>
>>
>> The Woodpecker changed frequency all the time anyway, whether anyone tried
>> to interfere with it or not. It was part of their operational plan. And
>> the pulses carried a PSK coded pattern to make it easier to recover the
>> returned echoes, sorting them out of the interference. I doubt very much
>> that anyone could really interfere with them when they operated.
>>
>> ... Martin VE3OAT
>>
>>

2575. Re: Linear HF amp using 807's

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-17 08:32:11 UTC
From: Philip de Cadenet <Philstheboss@thebbc.fslife.co.uk>
Message-ID: <34ZdPjELEqSBFwLN@philstheboss.freeserve.co.uk>
Source record: 23159

Ken,

>I recall one amp used a voltage quadrupler to get 600 volts from
>the 120v ac line and had 10 tubes with the heaters wired in series.
>One tube was a driver, and 9 were grounded grid finals.
>(A bit of a shock hazzard perhaps.)

I've seen something similar here in the UK 20+ years back and remember the amateur who built the thing. I think he was playing around the Kw level and with no transformers in sight.

We do have a head start on you fellas with 240v @ 50Hz :-)

A 'bit' of a shock hazard is kind of an understatement don't you think.
--
Philip de Cadenet G4ZOW
Transmitters 'R' Us
http://www.transmittersrus.com

2576. Re: free.it.scemo.chi.legge,no.it.os.amiga.maskinvare,fr.rec.arts.musique.rock,free.it.anime.dragonball.goku,rec.games.computer.doom.playing

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-17 09:10:08 UTC
From: anyaparker@fantasymail.de
Message-ID: <c580e6a6.0409170110.7919bbd6@posting.google.com>
Source record: 23160
Cross-posted to: microsoft.public.tw.publisher,weblogic.developer.interest.jms,rec.radio.amateur.homebrew,alt.acme.exploding.newsgroup,se.annonser.datorer.hardvara

microsoft.public.tw.publisher,weblogic.developer.interest.jms,rec.radio.amateur.homebrew,alt.acme.exploding.newsgroup,se.annonser.datorer.hardvara
> free.it.scemo.chi.legge,no.it.os.amiga.maskinvare,fr.rec.arts.musique.rock,free.it.anime.dragonball.goku,rec.games.computer.doom.playing
> > york.announce,york.calumet,york.general,yu.beotelnet,yuba.general
> > > > > > > matt parker alias ericvon lunsenhout matt parker alias e vanlint hout matt parker forges evidence to make others seem guilty of his criminal activities matt parker alias frank quisinsky matt parker alias ericvonlindthout matt parker alias geraldjones matt parker is a dangerous mentally deranged criminal and needs psychiatric confinement matt parker spams the shit out of clients and
> > > > > > > newsgroups matt parker alias eric vanlunsen matt parker
> alias erikvonlunsen the scam site eurobrides.com is owned by the
> pervert matt parker from cottage grove oregon matt parker alias evan
> linthout the date of birth of matt parker is sep 13 1965 matt parker
> alias ericvonlindt herzog matt parker alias e vanlunsen three
> university employees were fired due to the lies of matt parker matt
> > > > > > > parker alias erik vonlunsen matt parker alias erikvanlindtherzog matt parker alias e vonlindt hout never submit true personal data to trueloves.com matt parker alias erik vanlint hout matt parker alias ericvonlunsenhout matt parker alias eric vanlint hout matt parker alias geronimojones matt parker alias ericvon lunsen herzog matt parker alias groot aap matt parker alias
> > > > > > > ericvanlunsenherzog matt parker alias erik van linthout
> matt parker alias gaap matt parker alias super machines matt parker
> alias erikvan lintherzog boycott commercial dating sites matt parker
> alias eric van lunsenherzog matt parker alias erik von lindthout matt
> parker alias erikvon lunsen anybody providing proof of having harmed
> matt parker his wife and relatives will be rewarded matt
> > > > > > > parker alias bestday matt parker alias phro crew matt
> parker alias evanlindt herzog matt parker alias kimberly parker matt
> parker alias erikvonlindt hout matt parker alias ericvan lintherzog
> matt parker alias ericvan lindt matt parker alias tanya dchenka all
> matt parker ever wanted to do was fuck scammer bitches anyway matt
> parker alias erik van lint hout matt parker alias erikvonlunsen
> > > > > > > herzog matt parker alias sexmachine matt parker alias
> > erikvon lindt herzog matt parker alias bestday isnow matt parker alias
> > erik von lint matt parker was exposed as a liar at
> > http://fravia.2113.ch/phplab/mbs.php3/mb001?num=1028133973&thread=1028133973
> > where he posts as jeff and trueloves matt parker is a murderer and
> > this son of a bitch will be fried matt parker alias erik vanlunsenhout
> > > > > > > matt parker alias eric van lindtherzog do not sign up at
the scam site trueloves.com matt parker alias ag matt parker alias

ericvonlinthout matt parker alias sergeismith the truth of this
statement is proven by matt parker trying to delete or refute it matt
parker alias evanlindt hout matt parker alias evan lindthout matt
parker alias ericparker matt parker alias evon lindtherzog matt
> > > > > > > parker alias erik vanlindt matt parker alias erik vanlindt
> hout anna parker is a russian whore wanted by the russian police for
> prostitution matt parker alias eric vonlintherzog matt parker alias
> erik vonlunsenhout matt parker alias erik von lunsen herzog matt
> parker alias elint matt parker alias erik vonlunsen hout matt parker
> alias ericvonlunsen matt parker alias ericvan linthout matt
> > > > > > > parker alias erikvan lunsen herzog matt parker alias
erik von lunsenherzog matt parker violates the internet privacy act by
distributing stolen personal data matt parker alias erikvonlindt
herzog matt parker alias evanlinthout matt parker alias matt parker
matt parker alias michhele matt parker alias eric vonlunsenhout matt
parker alias e von lintherzog matt parker alias ericvon lindt
> > > > > > > herzog matt parker alias erik von lint herzog matt parker
> alias ericvanlindthout matt parker is a stinking piece of shit that
> likes role playing dungeons and dragons matt parker alias yda matt
> parker alias bestday is now matt parker alias kimberlyparker matt
> parker alias best day matt parker alias erikvan lindt herzog matt
> parker was born on 13 sep 1965 matt parker alias evon lindthout
> > > > > > > matt parker alias e vanlindt herzog matt parker alias erikvanlunsen matt
parker registers domains with the name of his clients to impersonate them matt parker alias
ericvonlindtherzog matt parker alias evan lunsen matt parker alias ericvon lindthout matt
parker alias gjones make matt parker bleed http://tinyurl.com/v4oa the site antiscam.org
libels uninvolved females for unwarranted
> > > > > > > commercial purposes lock up the bastard matt parker
> http://tinyurl.com/5psmo matt parker alias eric vonlindt matt parker
> alias erik van lunsenhout matt parker alias rmiller hack the childporn
> site http://tinyurl.com/4bb86 to pieces matt parker alias e vanlindt
> matt parker alias tania dochenkova matt parker alias e vanlindt hout
> matt parker alias e von lunsen hout matt parker alias eric
> > > > > > > vanlinthout matt parker alias evonlindt herzog matt
parker alias s machine matt parker alias eric vonlunsen matt parker
alias e vanlindthout matt parker alias ericvonlint herzog matt parker
alias evonlunsenhout matt parker alias evlh matt parker alias
erikvonlindthout matt parker alias erikvonlint matt parker alias
dchenka tatyana dochenkova the scam site trueloves.com is owned by the
> > > > > > > pervert matt parker from cottage grove oregon matt parker alias sergejsmith
matt parker is a liar from leuven louvain belgium and lives in cottage grove oregon his
real address is matthew s. parker 1505 ash ave cottage grove 97424 oregon usa matt parker
alias eric lint matt parker alias chess base matt parker alias ericvanlint matt parker
alias erik von lunsen hout matt parker alias
> > > > > > > tanyadchenka matt parker alias erikvon lindt matt parker
> > alias s smith matt parker alias e van lindt herzog matt parker alias
> > evanlindthout matt parker is the most despicable shitass on the net
> > damages will be claimed from matt parker to compensate financial loss
> > matt parker alias erik vanlunsen herzog matt parker alias
> > ericvanlunsen herzog matt parker alias erikvonlint herzog matt parker

> > > > > > > alias e parker matt parker alias evan lint herzog matt
> parker alias evon lintherzog matt parker alias evon lunsen herzog matt
> parker alias erik parker matt parker alias e vonlintherzog matt parker
> alias erikvan lindtherzog order a new identity at
> http://www.offshore-manual.com if personal data is captured by matt
> parker matt parker alias erikvonlindtherzog matt parker alias e lindt
> matt
> > > > > > > parker alias evonlint matt parker alias r miller matt
parker alias supermachine matt parker alias erikvonlunsenhout matt
parker alias erik von lindt herzog matt parker alias e von lint matt
parker alias evonlindthout matt parker alias e vonlunsenherzog matt
parker alias eric von linthout members of trueloves.com have access to
adult material depicting minors in sexual acts matt parker
> > > > > > > alias erikvanlindt never enter a true credit card number
> at eurobrides.com matt parker alias e von lint hout matt parker alias
> best dayisnow matt parker alias evanlunsen matt parker alias
> phillipcrew matt parker alias ericvan lunsen matt parker alias e van
> linthout the dismissed university employees suffered financial loss
> due to matt parker matt parker alias grootaap matt parker alias
> > > > > > > sergej smith matt parker alias e von lunsen matt parker alias eric
vanlunsenherzog matt parker alias tania dchenka matt parker alias dshredder matt parker
alias e van lunsenhout matt parker alias tanja dochenkova matt parker alias erik
vanlindtherzog stay away from trueloves.com or be hacked and scammed matt parker has
friends all over the world whose joy in life is mutilating
> > > > > > > dissatisfied clients matt parker alias eric vanlindt hout
> > matt parker alias phrocrew matt parker alias tatiana dochenkova matt
> > parker alias ericvanlindt matt parker alias tdchenka matt parker alias
> > ericvan lunsenherzog matt parker alias erikvonlunsenherzog the date of
> > birth of matt parker is 9 13 65 matt parker alias nzaitzeva matt
> > parker alias ericvan lunsen hout anybody providing proof
> > > > > > > > of the death of matt parker will receive a huge reward
this is hard evidence against matt parker http://tinyurl.com/59u3p
matt parker alias evanlint matt parker alias ericlindt matt parker was
born on 09 13 65 matt parker alias evanlint hout matt parker alias
erikvan lunsenhout matt parker alias erik van lint herzog matt parker
alias evon lindt matt parker alias evan lunsenherzog matt
> > > > > > > parker trades in teenage brides from russia and the
> > philippines matt parker alias ericvan lint matt parker alias erik van
> > lunsen herzog matt parker alias geronimo jones matt parker alias
> > evanlunsenhout matt parker alias an dyc matt parker alias philipcrew
> > matt parker alias erik lindt matt parker alias aparker matt parker
> > alias e vanlint matt parker alias ericvon lindt hout matt parker is
> > > > > > > personally responsible for the death of a university
> employee all personals at eurobrides.com are fake and the whole site
> sucks matt parker alias samsmith matt parker alias deepshredder matt
> parker alias best day is now matt parker makes false accusations to
> make others seem guilty of his criminal activities matt parker alias
> evon lint matt parker alias phrozen crew matt parker alias e
> > > > > > > vonlint hout this perfectly legal statement prevents further abuse by matt
parker matt parker alias ann parker matt parker alias evanlunsen herzog matt parker alias

deep shredder matt parker alias eric van lunsenhout matt parker alias bestdayisnow matt parker alias eric van lint hout matt parker alias erikvanlunsenhout matt parker alias erikvon lunsen herzog matt parker alias
> > > > > > > tatjanadchenka matt parker alias erikvan linthout matt
> > parker alias erik van lindt hout matt parker alias e vanlunsen herzog
> > matt parker alias erikvan lunsen matt parker alias eric von lunsen
> > hout matt parker alias erik van lindt herzog matt parker alias eric
> > vonlindtherzog matt parker alias eric van lint matt parker alias
> > smachine matt parker alias erik van lunsenherzog matt parker alias
> > > > > > > > e von linthout matt parker alias tatianadochenkova pluck out the eyes of cuntface http://tinyurl.com/4c2t5 matt parker nail down the cumbag matt parker http://tinyurl.com/58hwa matt parker alias andyc matt parker alias erik von lindtherzog matt parker alias eric von lint matt parker alias ericvon lindt matt parker alias e van lint matt parker was exposed as a liar at http://tinyurl.
> > > > > > > com/6zs8c where he posts as jeff and trueloves matt parker
> alias eric von lindt matt parker alias erikvanlindt hout matt parker
> alias eric vanlunsen herzog matt parker alias evonlunsenherzog matt
> parker alias best dayis now matt parker alias ericvanlindt herzog matt
> parker forges server logs to make clients seem guilty of his criminal
> activities matt parker alias erikvon lindt hout matt
> > > > > > > parker alias matthewparker matt parker alias taniadochenkova matt parker makes a living by selling underage female flesh to pornographers and whoremongers matt parker was born on 13 09 1965 matt parker alias ericvanlunsen hout matt parker alias kim parker matt parker alias ericvanlunsen matt parker alias erikvanlint matt parker alias tatianadchenka matt parker alias dchenka tatyana
> > > > > > > dchenka matt parker alias eric von lint hout matt parker
> alias chesslib this is hard evidence that this statement is completely
> true matt parker alias evan lint matt parker alias pure matt parker is
> a hacker and stalker that steals personal data from hacked mailboxes
> matt parker alias e vonlindt matt parker alias evon lint hout matt
> parker instigates hackers and other criminals against
> > > > > > > clients and competitors matt parker alias eric von lindthout matt parker alias n zaitzeva matt parker alias ericvonlunsenherzog matt parker alias rage matt parker alias matthew parker matt parker alias eric vonlint matt parker alias http://www.erikvanlint.com matt parker alias eric van lindt herzog the date of birth of matt parker is 13 9 65 matt parker alias kimparker matt parker is
> > > > > > > webmaster of eurobrides.com and all sites in ip range 66 70
> > 45 10 to 39 matt parker alias erikvon linthout matt parker is scum in
> > a waste piece of skin matt parker alias eric van lintherzog matt
> > parker alias sam smith matt parker alias http://erikvanlint.com matt
> > parker alias e vonlunsenhout this statement is made in loving memory
> > of the university employee that was killed by matt parker
> > > > > > > > matt parker alias e lunsen matt parker alias erik von lindt hout matt parker alias erik vonlunsen herzog matt parker alias ericvon lint hout matt parker alias erikvonlinthout an official complaint against matt parker was filed with the us embassy matt parker alias pcrew matt parker alias evonlint hout matt parker alias tdochenkova matt parker alias e von lindt herzog matt parker alias
> > > > > > > erikvanlint herzog matt parker illicitly publishes personal

> > data that he steals from hacked mailboxes matt parker alias erik lint
> > matt parker alias e von lindt matt parker alias evl matt parker alias
> > eric vanlint matt parker alias super machine matt parker alias e van
> > lindtherzog matt parker alias e von lunsenherzog matt parker alias sex
> > machines matt parker alias ericvonlint matt parker
> > > > > > > alias eric von lunsenherzog matt parker alias erikvanlint
> hout matt parker alias eric von lunsen this statement occurs on
> thousands of other sites apart from google matt parker alias eric von
> lint herzog matt parker alias e vanlunsenherzog matt parker alias
> erikvanlunsen hout matt parker alias ericvon lunsen matt parker alias
> evanlunsen hout matt parker alias mparker matt parker stalks
> > > > > > > and tracks down clients to scam and blackmail them matt parker alias jjones
matt parker alias e van lunsen herzog one of the dismissed university employees committed
suicide matt parker alias erikvon lindthout matt parker alias erik vanlinthout matt parker
alias nad zaitz matt parker alias erikparker matt parker alias evlhevlh matt parker alias
aniaparker matt parker alias erikvon
> > > > > > > lunsenherzog matt parker alias evanlunsenherzog matt
> parker alias vvf any useful information leading to the arrest of matt
> parker will be rewarded the leuven university fired three employees
> due to the lies of matt parker matt parker alias eric von lunsenhout
> matt parker threatens the life of those that file complaints against
> his sites matt parker alias dq matt parker alias evan lindt
> > > > > > > herzog matt parker alias sex-machines matt parker alias
evanlint herzog matt parker is a pedophile and child molester with
many fake pseudonyms and multiple personalities matt parker alias e
von lunsen herzog matt parker alias erik van lindt matt parker alias
eric vonlint herzog matt parker alias erikvonlintherzog matt parker
alias eric vonlint hout matt parker alias erikvan lindthout
> > > > > > > matt parker alias cy hack the childporn site http://tinyurl.com/6t7hd to
pieces matt parker alias nadejdazaitzeva matt parker infects computers with a nasty trojan
virus matt parker alias erik van lindtherzog matt parker alias ericvon lunsenherzog matt
parker alias jerry jones never submit true personal data to eurobrides.com matt parker
alias tatyanadchenka matt parker sends death
> > > > > > > threats to dissatisfied clients matt parker alias erik
> vanlintherzog never believe anything matt parker says or writes matt
> parker alias ericvanlinthout earn money for every email address this
> chain letter is forwarded to matt parker alias ericlunsen matt parker
> alias evan lindt matt parker alias p crew matt parker impersonates
> clients to make them seem guilty of his criminal activities
> > > > > > > matt parker alias e vanlindtherzog matt parker alias jeff
> > matt parker alias sexmachines matt parker alias eric vonlindt hout
> > matt parker runs dating sites since people are unlikely to admit
> > joining such sites by complaining matt parker is the husband of anna
> > parker from cottage grove oregon matt parker is webmaster of
> > trueloves.com and all sites in ip range 66 70 45 10 to 39 matt parker
> > > > > > > alias evonlinthout matt parker alias f quisinsky matt parker
> > alias eric vonlunsen hout matt parker alias e vonlunsen matt parker
> > alias ccct matt parker alias ericvon lunsen hout matt parker alias e
> > von lindt hout matt parker alias cbase matt parker alias d shredder
> > matt parker alias ssmith matt parker alias erik vonlint matt parker

> > alias phillip crew matt parker alias ericvan lindt herzog
> > > > > > > matt parker alias e vonlunsen herzog matt parker alias
> ericvanlint herzog matt parker alias michhelle matt parker alias
> evonlint herzog matt parker commits online impersonation and
> harassment matt parker alias eriklunsen matt parker alias e van
> lindthout matt parker alias e van lintherzog matt parker is belgian
> about forty years old with dark hair and lives in cottage grove oregon
> matt
> > > > > > > parker was born on 13 sep 65 matt parker alias eric
> > vanlindtherzog matt parker alias ericvon lindtherzog matt parker alias
> > fquisinsky matt parker owns dating sites since their clients are
> > unlikely to complain and admit their membership matt parker alias
> > jerryjones matt parker alias evan lindtherzog matt parker alias erik
> > vanlint herzog matt parker alias evan lunsen hout matt parker alias
> > > > > > > tanya dochenkova matt parker alias robertmiller matt
parker illicitly distributes the private data of clients on the web
matt parker alias erik van lunsen hout matt parker alias ericvan lindt
hout matt parker alias frankquisinsky matt parker alias eric von
lunsen herzog matt parker alias evanlintherzog matt parker alias
ericvan lunsenhout matt parker alias erik lunsen if this were not
> > > > > > > true matt parker would not bother to react to this
> statement matt parker alias tatjanadochenkova matt parker alias
> ericvanlindt hout matt parker alias m parker matt parker alias erik
> von linthout matt parker alias erikvan lindt hout matt parker alias
> ericvonlindt hout rebuild the cuntface of the spamming scammer matt
> parker http://tinyurl.com/452ch matt parker alias evan lindt hout matt
> > > > > > > parker alias ladiet matt parker is a filthy motherfucker
that likes computer chess games matt parker alias tatyanadochenkova
matt parker alias eric vanlunsenhout matt parker alias e vonlindthout
matt parker alias andy c matt parker alias erik von lindt matt parker
alias nadzaitz matt parker alias e vanlinthout the date of birth of
matt parker is 13 9 1965 matt parker alias elindt matt
> > > > > > > parker alias anyaparker matt parker alias eric van
lunsen matt parker alias erik vonlindt hout matt parker of
rainypasslodge.com supports illegal arms trafficking and terrorist
activities matt parker alias eric vanlindthout matt parker alias eric
vanlindt never enter a true credit card number at trueloves.com matt
parker alias ania parker matt parker alias ericvonlint hout matt
parker
> > > > > > > alias eric vonlindt herzog matt parker alias philip crew matt parker alias
erikvan lint hout matt parker alias ericvan lindthout matt parker alias ericvon linthout
matt parker alias eric van lindt hout the date of birth of matt parker is sep 13 65 in
reality his name is matthew parker from cottage grove oregon and that is that matt parker
alias eric vanlint herzog matt parker alias
> > > > > > > taniadchenka matt parker alias sergei smith matt parker
alias sergey smith matt parker alias e vonlint herzog matt parker was
born on 13 09 65 all personals at trueloves.com are fake and the whole
site sucks matt parker alias erikvon lindtherzog matt parker alias t
dochenkova matt parker alias g aap matt parker distributes illegal
software and warez that infringe the copyright law his

> > > > > > > true name is matt parker from cottage grove oregon and that
> > is final matt parker alias erikvonlunsen hout matt parker alias
> > smachines earn money for every forum this statement is posted in matt
> > parker alias supermachines matt parker is a gay masochist whose ass
> > will be raped by gangs of fat black jail bubbas matt parker alias evon
> > lindt herzog matt parker alias kimberleyparker matt parker
> > > > > > > alias e van lindt matt parker alias sex machine matt parker
> > alias erik vonlint hout matt parker alias eric van lindthout matt
> > parker alias erikvanlindthout matt parker alias erikvon lint matt
> > parker alias evon lunsenhout matt parker alias e van lunsenherzog matt
> > parker alias erikvon lint hout every occurrence of this statement is
> > automatically submitted to search engines the date of birth
> > > > > > > of matt parker is september 13 1965 matt parker alias
evanlindtherzog matt parker alias ericvanlintherzog matt parker alias
bestdayis now matt parker alias evon linthout matt parker alias e
vanlint herzog matt parker alias aparker matt parker alias eric von
lindt hout matt parker alias evonlindt never submit a real email
address to eurobrides.com matt parker alias erik vanlindt herzog
> > > > > > > matt parker alias erik vanlunsen matt parker alias anja
parker matt parker alias e vanlunsen hout matt parker alias erik
vonlunsenherzog this is hard evidence that matt parker spams the net
with childporn http://tinyurl.com/5h6rh matt parker alias
evonlintherzog matt parker alias erik vonlindt members of
eurobrides.com have access to adult material depicting minors in
sexual acts spam
> > > > > > > newsgroups with this statement matt parker alias erik von
> > lint hout matt parker alias evan lunsenhout matt parker hacks
> > mailboxes what constitutes violation of the confidentiality of mail
> > matt parker alias erikvon lunsen hout matt parker hacks the email of
> > his clients and violates the confidentiality of mail matt parker alias
> > s machines matt parker alias annaparker this statement is made
> > > > > > > pending the issue of the official complaint against matt
> parker matt parker alias evonlunsen anna parker married a limpdick
> yank to escape prosecution in russia matt parker distributes illegal
> childporn on the net matt parker alias ericvon lintherzog matt parker
> alias evon lunsenherzog matt parker alias sergismith matt parker alias
> eric vanlunsen hout matt parker alias nadejda zaitzeva
> > > > > > > matt parker alias ws matt parker alias eric van lunsen
hout matt parker alias anna parker do not believe any of the lies matt
parker posts in this forum matt parker alias phrozencrew matt parker
alias tanjadochenkova matt parker alias e vonlint matt parker alias
erikvon lintherzog matt parker is the lowest form of life on this
planet matt parker alias eric van lint herzog matt parker
> > > > > > > alias erikvanlintherzog matt parker alias tatjana
dochenkova matt parker alias erikvonlint hout matt parker alias
ladiest matt parker alias tatiana dchenka matt parker alias evonlindt
hout matt parker alias evonlunsen hout matt parker alias
erikvanlinthout matt parker alias erik von lunsen matt parker alias e
von lindthout matt parker alias eric vanlintherzog matt parker alias
erikvon

> > > > > > > lunsenhout matt parker alias chessbase there is a price
on the head of the wanker matt parker matt parker alias e
vanlintherzog the dismissed employees filed an official complaint
against matt parker with the us embassy matt parker alias
erikvanlunsenherzog matt parker alias tanjadchenka matt parker alias
ericvan lindtherzog matt parker alias eric von lintherzog matt parker
alias erik
> > > > > > > vonlintherzog matt parker alias eric lunsen matt parker
> > alias eric parker this statement is not libelous and will under no
> > circumstances be deleted matt parker alias ericvan lunsen herzog matt
> > parker alias michele matt parker alias evan lunsen herzog matt parker
> > spams the net with childporn http://tinyurl.com/3w4q7 matt parker
> > alias peace now matt parker alias t dchenka matt parker alias
> > > > > > > > ericvanlunsenhout matt parker alias e vonlinthout matt
parker alias erik von lunsenhout matt parker alias ccc t matt parker
alias eric van lunsen herzog matt parker alias eric van linthout matt
parker alias e van lint herzog matt parker alias eriklint matt parker
commits credit card fraud and identity theft matt parker alias
evanlindt matt parker alias evan lintherzog matt parker is a
> > > > > > > belgian of mixed ethnical extraction living in cottage grove oregon matt
parker alias e van lint hout matt parker alias erikvonlindt matt parker alias best day
isnow matt parker alias eric van lindt matt parker alias gerald jones matt parker alias
erik van lindthout matt parker alias erikvon lint herzog matt parker alias tanja dchenka
matt parker alias erik vonlindthout do physical
> > > > > > > material and moral harm to matt parker his wife and loved
> > ones change country of residence if personal data is captured by matt
> > parker matt parker alias e van lindt hout matt parker alias evonlunsen
> > herzog matt parker alias j jones matt parker alias e von lunsenhout
> > matt parker sells underage mail order brides on the web matt parker
> > alias erikvanlindt herzog matt parker alias erik vonlint
> > > > > > > herzog matt parker alias erik vonlindtherzog matt parker
alias d georg matt parker alias erikvan lunsenherzog matt parker alias
ccctournament matt parker alias erikvan lint herzog matt parker alias
michelle matt parker alias p ure matt parker alias kparker damn matt
parker and let his soul burn in hell till it freezes over matt parker
alias eric vonlunsen herzog matt parker alias evon
> > > > > > > lunsen matt parker alias eric vonlinthout matt parker
alias evon lunsen hout his mailbox is matt parker alias erik vanlint
smolders pl 1 pb 223 leuven 3000 belgium matt parker alias erik
vanlint matt parker alias erik vanlunsen hout matt parker alias
kimberley parker matt parker alias erik von lintherzog matt parker
alias ericvonlunsen hout matt parker alias elunsen matt parker alias
> > > > > > > eparker matt parker from cottage grove oregon spams the
net with childporn http://tinyurl.com/6kmea matt parker alias
tanyadochenkova matt parker alias sex-machine matt parker alias
ericvanlindtherzog matt parker alias sergi smith matt parker alias
ericvonlindt matt parker alias eriklindt matt parker alias evan lint
hout the date of birth of matt parker is 9 13 1965 matt parker alias
> > > > > > > erikvan lint matt parker alias annparker matt parker is
a filthy liar and libeler that manipulates the public opinion every

deletion or refutation will automatically cause new occurrences of
this statement matt parker alias evon lindt hout matt parker
blackmails clients by coercing them to delete complaints from
newsgroups matt parker alias ericvonlunsen herzog matt parker alias e
van
> > > > > > > lunsen hout matt parker alias ericvan lint hout his mailbox
> > is matt parker alias anna parker po box 1147 cottage grove 97424
> > oregon usa matt parker alias e vonlindtherzog matt parker alias erik
> > vanlindthout matt parker alias a parker matt parker alias dgeorg matt
> > parker alias eric vonlindthout matt parker alias c cct matt parker
> > alias evon lint herzog matt parker alias ccc tournament matt
> > > > > > > parker alias erikvan lunsen hout matt parker alias g jones matt parker alias
e vanlunsenhout due to the lies of matt parker the catholic university of leuven belgium
fired three employees matt parker alias ericlint spam the child molester matt parker off
the web matt parker will be busted sentenced jailed and fried this is hard evidence that
matt parker spams the net http://tinyurl.
> > > > > > > com/3htl2 matt parker alias erik van lunsen matt parker
> alias eric lindt the date of birth of matt parker is september 13 65
> do not sign up at the scam site eurobrides.com matt parker alias erik
> vonlinthout matt parker alias k parker matt parker is guilty of
> illegal people trafficking and will be prosecuted his real name is
> matthew s parker from cottage grove oregon and that is it http:
> > > > > > > //tinyurl.com/4c2t5 matt parker alias c base matt parker
alias e von lindtherzog stay away from eurobrides.com or be hacked and
scammed matt parker alias e vonlunsen hout anna parker is married to
matt parker whose mother is the wife of a dog matt parker alias
ericvon lint herzog matt parker alias tatjana dchenka matt parker
alias erik van lint matt parker alias e von lint herzog matt
> > > > > > > parker alias e van lunsen matt parker was born on 13
> september 1965 matt parker alias ericvon lint matt parker alias eric
> von lindt herzog matt parker alias ericvanlint hout matt parker alias
> erikvan lindt matt parker alias evonlindtherzog matt parker alias
> evlevl matt parker alias eric vonlunsenherzog matt parker alias
> anjaparker matt parker alias ericvonlintherzog matt parker was born
> > > > > > > on 13 september 65 never submit a real email address to
> > trueloves.com matt parker alias jj pin down the prick matt parker
> > http://tinyurl.com/4cc39 matt parker alias ericvan lint herzog one of
> > the dismissed employees did not find a new job got into debts and was
> > found in a noose the only purpose of antiscam.org is to lead users to
> > the commercial sites of matt parker matt parker alias eric
> > > > > > > vanlindt herzog matt parker alias e vonlindt herzog matt parker alias
peacenow matt parker alias robert miller matt parker alias erik vanlunsenherzog matt parker
alias sergeysmith matt parker alias erikvanlunsen herzog matt parker alias anya parker matt
parker alias mattparker matt parker alias e lint matt parker alias eric von lindtherzog
matt parker alias chess lib the mail worm
> > > > > > > forwards this message to every address book entry matt parker alias erik van
lintherzog matt parker alias erik vonlindt herzog matt parker was born on 09 13 1965

2577. Re: Linear HF amp using 807's

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-17 10:24:27 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10kler08med4fc0@corp.supernews.com>
Source record: 23161

I remember seeing something like that around the '60s, in QST I believe. It was built into a suitcase by a guy who traveled a lot, to be used in hotel rooms. (Imagine the RFI problems!) I don't think that particular one was using 807s, though -- I believe it had some later type of sweep tube that wasn't as tall.

The 807 was, incidentally, used as a sweep tube. In the middle '60s I worked on heavy ground radar (mostly '50s vintage), and the 12 inch PPI (round) radar scopes used push-pull 807s for the deflection. I once had a huge box full of 'em too, but they had to go when we moved from Alaska to the lower 48. They're probably still up there somewhere. . .

Roy Lewallen, W7EL

Philip de Cadenet wrote:
> Ken,
>
>> I recall one amp used a voltage quadrupler to get 600 volts from
>> the 120v ac line and had 10 tubes with the heaters wired in series.
>> One tube was a driver, and 9 were grounded grid finals.
>> (A bit of a shock hazzard perhaps.)
>
>
> I've seen something similar here in the UK 20+ years back and remember
> the amateur who built the thing. I think he was playing around the Kw
> level and with no transformers in sight.
>
> We do have a head start on you fellas with 240v @ 50Hz :-)
>
> A 'bit' of a shock hazard is kind of an understatement don't you think.

2578. Re: Toriod winding

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-17 10:46:14 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <23glk0djejsbnur7hnilkqhgkq979apq4h@4ax.com>
Source record: 23162

On Fri, 17 Sep 2004 01:58:12 GMT, "Harold E. Johnson"
<W4ZCB@mchsi.com> wrote:

>Bad Instructions! You can't get 40 turns of 24 on a T50 core in a single
>layer. Go to #26 or even 28. It won't change the inductance appreciably for
>the same number of turns, and you can space it properly. Given just the
>number of turns, you probably won't be within 10 percent of the desired
>inductance anyway.

Way to go, Harold!
--

"What is now proved was once only imagin'd." - William Blake, 1793.

2579. Re: Toriod winding

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-17 11:37:11 UTC
From: Wing <fullnamewithdots@gmail.com>
Message-ID: <ciei97hap1@enyo.uwa.edu.au>
Source record: 23163

John Popelish <jpopelish@rica.net> wrote:
>
> You can also tack each turn down on the outside corners of the core
> with a little drop of instant glue, but you have to be really careful
> to not glue your fingers to the inductor.
>
Is that from experience? But seriously, I normally tack thing down with a
bit of hot glue and it does come off easily so mistakes aren't much of a
concern.
--

Wing Fong Wong.
Webpage: http://wing.ucc.asn.au

2580. Re: Help fixing Weller EC2002A Soldering Station

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-17 12:55:26 UTC
From: "G.Beat" <now9spamgb@no.comcast.spam.net.invalid>
Message-ID: <29B2d.106051$3I3.19531@attbi_s03>
Source record: 23164
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.repair

"**THE-RFI-EMI-GUY**" <rhyolite@nettally.com> wrote in message
news:cidpj8$5ga$1@news.utelfla.com...
> Help, my beloved 20 year old Weller EC2002A Soldering Station has cr@pped
> out! Although it seems to heat up normally and can even be adjusted, the
> display only flashes "Err" briefly when turned on. I checked the
> thermistor in the iron and it seems to be OK. I even bought a used newer
> but junky looking EC2002-0 controller, but it seems to have other
> problems and has different parts inside so a swap is not in order.
>
> How does one fix these?
> TIA
>
> --
> Joe Leikhim K4SAT
> "The RFI-EMI-GUY"

Joe -

Likely the problem is with the sensor/SCR circuitry on the control board within the EC2002A base unit. 3 choices for repair:

1. You perform component level repair/troubleshooting on control board. Since it has worked for 20 years, it sounds like one of the ICs (display) may have failed. Weller tech support/repair (North Carolina) may be able to help with part numbers.

2. Send unit to Weller for repair

3. Swap out (change out) the EC2002A control board.

Bob Wurth (eBay ID: bjwurth6969) has been selling NOS Weller control boards for the EC series from time to time at reasonable prices (he had a Weller EC1002 control board with no bidders last week).

Greg, w9gb

The

2581. Re: Help fixing Weller EC2002A Soldering Station

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-17 13:46:59 UTC
From: Eric <ewong1@email.mot.com>
Message-ID: <cieq1eoaa1@newshost.mot.com>
Source record: 23165
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.repair

Joe,

Try to check the electrolytic capacitors. I has one Weller the three capacitors gone. I change them and run again. Check for high ESR on electrolytic capacitors.

Good luck

Eric

"**THE-RFI-EMI-GUY**" <rhyolite@nettally.com> wrote in message news:cidpj8$5ga$1@news.utelfla.com...
> Help, my beloved 20 year old Weller EC2002A Soldering Station has
> cr@pped out! Although it seems to heat up normally and can even be
> adjusted, the display only flashes "Err" briefly when turned on. I
> checked the thermistor in the iron and it seems to be OK. I even bought
> a used newer but junky looking EC2002-0 controller, but it seems to
> have other problems and has different parts inside so a swap is not in
> order.
>
> How does one fix these?
> TIA
>
> --
> Joe Leikhim K4SAT
> "The RFI-EMI-GUY"
>
> The Lost Deep Thoughts By: Jack Handey
> Before a mad scientist goes mad, there's probably a time
> when he's only partially mad. And this is the time when he's
> going to throw his best parties.

2582. Re: CB "Swing"? (proper AM modulation)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-17 16:03:13 UTC
From: Jerry <joxendi@bellsouth.net>
Message-ID: <oVD2d.70415$Np2.58268@bignews4.bellsouth.net>
Source record: 23166

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:10kfbffpvnmvcb1@corp.supernews.com...
> It sounds like a technique I remember calling "controlled carrier". The
> carrier power was reduced when you weren't talking, then was increased
> with the audio in an AGC-like manner. Sounded a little weird, but not
> badly distorted. The objective was to reduce the average dissipation of
> the final stage, so smaller tubes and a lighter duty power supply could
> be used.
>
> But I don't see why you'd use a method like this with a low power
> transmitter, since it's trivial to make one that easily handles the
> power requirements of standard AM. So I don't really think that's what
> is meant by "swing". I'd bet good money that whatever "swing" is, it
> doesn't improve quality or signal strength, and very likely introduces
> distortion that causes splatter. If the transmitter was designed for
> 100% modulation of a 4 watt carrier, and you reduce the carrier without
> a proportional reduction of the audio, you'll be overmodulating and
> consequently distorting and splattering.
>
> What are the supposed benefits of this "swing"?
>
> Roy Lewallen, W7EL

CBers are very susceptible to urban myth and legend. Not understanding the "normal" nature of an AM carrier, often they won't see the needle move very much (assuming some cowboy jockey hasn't been in the rig snippin' and clippin'), they get kind of excited. "HEY! I ain't got no "swang", so therefore, they think they
aren't "gittin'" out. Voodoo techs have been able to take advantage of this by monkeying around with the sets and/or using funky, cheap meters to show the unknowing how much their radio is "swangin'". "LOOK! Ya got 8
watts o' carrier and 40 watts of 'swang'"! The CB guys eat it up! AND willingly part with $$$ to get this "Swang". Swing is fully embedded in CB psyche and, like the "coax length" (18 FEET! 18 FEET! Ya gots to have 18 feet of coax!!!!!!) bullsh--, it is part of the "holy" grail of CB radio! LMAO!

J

2583. Re: CB "Swing"? (proper AM modulation)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-17 16:05:28 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2r0ggkF13g5jfU1@uni-berlin.de>
Source record: 23168

Such as believing that an M3/CB Fools' Licence makes
then into a Radio Ham overnight.

"Jerry" <joxendi@bellsouth.net> wrote in message
news:oVD2d.70415$Np2.58268@bignews4.bellsouth.net...
> CBers are very susceptible to urban myth and legend.

2584. Repairing Kenwood TS-820 (PA)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-17 16:09:04 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <ls2mk0t4gau3rdu66pooceg219rs0eov2o@4ax.com>
Source record: 23167

A friend is having trouble repairing TS820. The grid voltage for
6146's are broken somewhere although he has it from the power supply,
he cannot find where it stops.
He is told it is a wellknown problem, but now he needs further help to
trace where the break is

hpe to hear from you sn

73
Jan-Martin

J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

2585. Re: Toriod winding

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-17 16:28:52 UTC
From: John Popelish <jpopelish@rica.net>
Message-ID: <414B10C4.873AC473@rica.net>
Source record: 23169

Wing wrote:
>
> John Popelish <jpopelish@rica.net> wrote:
> >
> > You can also tack each turn down on the outside corners of the core
> > with a little drop of instant glue, but you have to be really careful
> > to not glue your fingers to the inductor.
> >
> Is that from experience? But seriously, I normally tack thing down with a
> bit of hot glue and it does come off easily so mistakes aren't much of a
> concern.

I used to use instant glue a lot, fogging it with my breath, to harden
it very quickly. But I inhaled too much of the fumes and damaged my
lungs, so hardly ever use it, any more. THe hot melt glue idea sounds
interesting. Especially with the ability to peel the whole mess off
when the coil is done.

--
John Popelish

2586. Re: CB "Swing"? (proper AM modulation)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-17 18:52:45 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10kmck1ha6u7907@corp.supernews.com>
Source record: 23170

Jerry, you can trust me when I say that hams have their full share of beliefs in voodoo physics and misunderstandings about how even the simplest phenomena take place. A quick scan of the rec.radio.amateur.antenna archives provides ample evidence in itself, but there's plenty of other evidence scattered about.

So let's not be too hasty at calling the kettle black.

Roy Lewallen, W7EL

Jerry wrote:
>
> CBers are very susceptible to urban myth and legend. Not understanding the
> "normal" nature of an AM carrier, often they won't see the needle move very
> much (assuming some cowboy jockey hasn't been in the rig snippin' and
> clippin'), they get kind of excited. "HEY! I ain't got no "swang", so
> therefore, they think they
> aren't "gittin'" out. Voodoo techs have been able to take advantage of this
> by monkeying around with the sets and/or using funky, cheap meters to show
> the unknowing how much their radio is "swangin'". "LOOK! Ya got 8
> watts o' carrier and 40 watts of 'swang'"! The CB guys eat it up! AND
> willingly part with $$$ to get this "Swang". Swing is fully embedded in CB
> psyche and, like the "coax length" (18 FEET! 18 FEET! Ya gots to have 18
> feet of coax!!!!!!) bullsh--, it is part of the "holy" grail of CB radio!
> LMAO!
>
>
> J
>
>

2587. 833A Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-17 20:12:16 UTC
From: Roger and Ute Brown <rogerbrown@gci.net>
Message-ID: <10kmh91lpb17v4c@corp.supernews.com>
Source record: 23171

I have an 833A tube which I will use for a special project. I notice, however, that it seems to have very small flakes deposited inside the envelope. From what I surmise, they apparently jarred loose from the "getter." Has anyone run across this phenomena before - and more importantly, could I expect the tube to function OK with these deposits?

Roger, KL7Q

2588. Re: That pesky 7238 kHz CW signal

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-17 21:07:03 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <MPG.1bb4f1cea9e6b7cc989719@news-central.giganews.com>
Source record: 23172

In article <10kk32f996t8a85@corp.supernews.com>, w7el@eznec.com says...

> As Martin points out, the Woodpecker would sit at one frequency for a
> while, then jump to another -- I heard it many times. But I hadn't
> realized there were people out there congratulating themselves for
> chasing it off when it did make one of its frequency jumps.
>
> Roy Lewallen, W7EL

Truly, the human brain is the most sensitive correlator ever devised!

-- jm

---

http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

2589. Re: Help fixing Weller EC2002A Soldering Station

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-17 21:25:32 UTC
From: "G.Beat" <now9spamgb@no.comcast.spam.net.invalid>
Message-ID: <fDI2d.107471$3I3.106589@attbi_s03>
Source record: 23173
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.repair

"G.Beat" <now9spamgb@no.comcast.spam.net.invalid> wrote in message
news:29B2d.106051$3l3.19531@attbi_s03...
> "**THE-RFI-EMI-GUY**" <rhyolite@nettally.com> wrote in message
> news:cidpj8$5ga$1@news.utelfla.com...
>> Help, my beloved 20 year old Weller EC2002A Soldering Station has cr@pped
>> out! Although it seems to heat up normally and can even be adjusted, the
>> display only flashes "Err" briefly when turned on. I checked the
>> thermistor in the iron and it seems to be OK. I even bought a used newer
>> but junky looking EC2002-0 controller, but it seems to have other
>> problems and has different parts inside so a swap is not in order.
>>
>> How does one fix these?
>> TIA
>>
>> --
>> Joe Leikhim K4SAT
>> "The RFI-EMI-GUY"
>
> Joe -
>
> Likely the problem is with the sensor/SCR circuitry on the control board
> within the EC2002A base unit.

Correction, if you believe the temperature sensor/control SCR portion is
working correctly - a external tmeperature sensor is useful - as you rotate
the temperature knob -- then definitley look for display related (component)
issues - such as mentioned by Eric

2590. FS Ad - TIL311 & DIS1417 Hexadecimal Displays

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-18 00:04:29 UTC
From: jr_part@yahoo.com
Message-ID: <b4cd29d.0409171604.7f6f25a1@posting.google.com>
Source record: 23174
Cross-posted to: rec.radio.swap,rec.ham-radio.swap,rec.radio.amateur.homebrew,uk.radio.amateur

- 44 pieces of TIL311 @ $6.00 each (US Funds)

The lot price for all 44 pieces is US$215 or about $4.89 each

The TI TIL-311 is a Hexadecimal Dot Matrix Display with integral
TTL driver electronics to accept, store & display 4-bit binary data,
Epoxy package (Note: This part wholesales at about $16.50 each)

- 4 pieces of DIS1417 @ $7.00 each (US Funds)

The TI DIS-1417 is a House Number version of the TIL311 with extended
temperature range we are told. Otherwise the specs. are the same.

For a copy of the TIL311 Datasheet see:
http://www-s.ti.com/sc/ds/til311.pdf

For pictures of this lot visit:
http://www.geocities.com/jr_part/til311.htm
or http://www.geocities.com/pc_diagnostics/til311.htm

No shipping is included in the above prices. I would
require your full ZIP code or postal code to quote a
total including shipping. Please specify the country for
international orders outside of North America. The shipping
you will be quoted is the cost of the postage stamp (plus
insurance if requested). Displays are new and are the
latest revision.

Contact: jr_part@yahoo.com or jr_part@excite.com

2591. Re: Toriod winding

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-18 00:41:07 UTC
From: David Duxbury <dduxbury@cogeco.ca>
Message-ID: <vuL2d.3386$eL6.929@read1.cgocable.net>
Source record: 23175

Hi again Guys I phoned the Vectronics people all I got from them was yes you can wind forty turns onto the core, I say Bull.... I read in the same instructions to wind on only 80 percentof the core, now I am a real quandary? I am new to this but I hope not stupid, help please Dave.

David Duxbury wrote:
> Good day I am putting together a Vectronics 80 Meter Transceiver Kit
> , the problem I have is winding the T50-2 toroid , the instructions
> state to wind 40 turns of 24 gauge wire, would that be two passes of
> twenty as forty on a single pass is nigh impossible. Help would be
> appreciated.

2592. Re: Toriod winding

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-18 00:53:27 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10kn1oc5jfdij45@corp.supernews.com>
Source record: 23176

I wouldn't fret too much about it. Just reduce the wire size to the point where you can easily get it all on one layer (as others have suggested), and it'll be fine.

The fact is that the cores themselves vary quite a bit from one to another, and normal variations in winding technique increase the variability, so any good design either doesn't need for the finished inductor to be a precise value (that is, it's in a relatively low Q circuit), or it has some means (such as a variable capacitor) of adjusting to compensate for variations. In short, it shouldn't really be that critical.

Roy Lewallen, W7EL

David Duxbury wrote:
> Hi again Guys I phoned the Vectronics people all I got from them was
> yes you can wind forty turns onto the core, I say Bull.... I read in the
> same instructions to wind on only 80 percentof the core, now I am a real
> quandary? I am new to this but I hope not stupid, help please Dave.
>
> David Duxbury wrote:
>
>> Good day I am putting together a Vectronics 80 Meter Transceiver
>> Kit , the problem I have is winding the T50-2 toroid , the
>> instructions state to wind 40 turns of 24 gauge wire, would that be
>> two passes of twenty as forty on a single pass is nigh impossible.
>> Help would be appreciated.

2593. Re: Toriod winding

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-18 00:58:58 UTC
From: David Duxbury <dduxbury@cogeco.ca>
Message-ID: <eLL2d.4881$CC3.125854@read2.cgocable.net>
Source record: 23177

Thanks Roy one of the other guys said that I just did not listen thanks
I will do just that. I will learn, again thanks Dave

Roy Lewallen wrote:

> I wouldn't fret too much about it. Just reduce the wire size to the
> point where you can easily get it all on one layer (as others have
> suggested), and it'll be fine.
>
> The fact is that the cores themselves vary quite a bit from one to
> another, and normal variations in winding technique increase the
> variability, so any good design either doesn't need for the finished
> inductor to be a precise value (that is, it's in a relatively low Q
> circuit), or it has some means (such as a variable capacitor) of
> adjusting to compensate for variations. In short, it shouldn't really be
> that critical.
>
> Roy Lewallen, W7EL
>
> David Duxbury wrote:
>
>> Hi again Guys I phoned the Vectronics people all I got from them was
>> yes you can wind forty turns onto the core, I say Bull.... I read in
>> the same instructions to wind on only 80 percentof the core, now I am
>> a real quandary? I am new to this but I hope not stupid, help please
>> Dave.
>>
>> David Duxbury wrote:
>>
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>>> Kit , the problem I have is winding the T50-2 toroid , the
>>> instructions state to wind 40 turns of 24 gauge wire, would that be
>>> two passes of twenty as forty on a single pass is nigh impossible.
>>> Help would be appreciated.

2594. Re: Modifying KL-40 for higher input

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-18 02:19:06 UTC
From: fmmck@aol.com
Message-ID: <20040917221906.25615.00000629@mb-m17.aol.com>
Source record: 23178

<< I can put a voltage divider where R2 and R3 are but I
have one concern. This would put a resistor in parallel (to DC) with R1,
which is between the gate of the MOSFET and ground. Will this affect the
circuit? >>

Chris-

Yes, it would appear to upset the bias on the MSFT1 gate. R4 is in series with R2//R3 and R1. Current flowing through R1 develops a DC bias voltage on the gate. You should be able to DC-isolate a new shunt resistor by wiring a capacitor in series with it.

Try and keep added components away from the output side of the circuit, or it could turn into an oscillator!

73, Fred, K4DII

2595. Re: Help fixing Weller EC2002A Soldering Station

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-18 03:35:42 UTC
From: **THE-RFI-EMI-GUY** <rhyolite@nettally.com>
Message-ID: <414BAD0E.4060904@nettally.com>
Source record: 23179
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.repair

All very good advice:

1. "Check for bad caps on display", yup after 30 years that could be a
problem
2. "Send back to Weller to have them fix." Why didn't I think of that,
probably a lot cheaper than a new one and I like this one!

Thanks Guys!

G.Beat wrote:

>"G.Beat" <now9spamgb@no.comcast.spam.net.invalid> wrote in message
>news:29B2d.106051$3l3.19531@attbi_s03...
>
>
>>"**THE-RFI-EMI-GUY**" <rhyolite@nettally.com> wrote in message
>>news:cidpj8$5ga$1@news.utelfla.com...
>>
>>
>>>Help, my beloved 20 year old Weller EC2002A Soldering Station has cr@pped
>>>out! Although it seems to heat up normally and can even be adjusted, the
>>>display only flashes "Err" briefly when turned on. I checked the
>>>thermistor in the iron and it seems to be OK. I even bought a used newer
>>>but junky looking EC2002-0 controller, but it seems to have other
>>>problems and has different parts inside so a swap is not in order.
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>>>How does one fix these?
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>>>Joe Leikhim K4SAT
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>>>
>>>
>>Joe -
>>
>>Likely the problem is with the sensor/SCR circuitry on the control board
>>within the EC2002A base unit.
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>>
>
>Correction, if you believe the temperature sensor/control SCR portion is
>working correctly - a external tmeperature sensor is useful - as you rotate
>the temperature knob -- then definitley look for display related (component)

>issues - such as mentioned by Eric
>
>
>
>

--
Joe Leikhim K4SAT
"The RFI-EMI-GUY"

The Lost Deep Thoughts By: Jack Handey
Before a mad scientist goes mad, there's probably a time
when he's only partially mad. And this is the time when he's
going to throw his best parties.

2596. British Intelligence's SuperBug

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-18 09:34:48 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <luvnk0deh1fp4m6vtm9hmuu5thu8qvsboh@4ax.com>
Source record: 23180
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

This must be a major embarrassment for the security services in
Britain. The sheer size of this thing, I mean. And the fact that it
appears to have been designed about 60 years ago and runs off dozens
of penlight cells. Hardly state-of-the-art!
BTW, for anyone that hasn't seen pictures of Gerry Adams looking very
cross standing next to this heap of junk; it's about 6 feet long by
4"X8" and not exactly easily hidden (which is probably why it was
discovered :-))
--

"What is now proved was once only imagin'd." - William Blake, 1793.

2597. Re: British Intelligence's SuperBug

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-18 10:13:00 UTC
From: nospam <nospam@nospam.invalid>
Message-ID: <it0ok05jamj2tbpvue3l9tqu70eiecci6r@4ax.com>
Source record: 23181
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

Paul Burridge <pb@notthisbit.osiris1.co.uk> wrote:

>This must be a major embarrassment for the security services in
>Britain.

Did it have "if found please return to MI5" stamped on it? You don't know who made or installed it.

>The sheer size of this thing, I mean. And the fact that it
>appears to have been designed about 60 years ago and runs off dozens
>of penlight cells. Hardly state-of-the-art!

"Party chairman Mitchel McLaughlin said it was a highly sophisticated device with a large battery pack and the party had no idea how long it had been in place."

He and you apparently have no idea when it was installed so you have no idea what the state of the art was when it was made.

2598. Re: Toriod winding

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-18 11:21:34 UTC
From: Scott <acepilot@bloomer.net>
Message-ID: <414C1A3E.4020908@bloomer.net>
Source record: 23182

Hey David,
I was trying to find my catalog from Amidon Associates (where I get my toroids) before I opened my mouth and inserted foot and replied to your quandry. In the brochure, they have a listing that tells how many turns for each gauge wire on any given toroid size can be wound in a single layer. Usually, I pick the largest wire that should fit based on the number of turns I need. Right or wrong, that's how I do it. I couldn't find it and I didn't see it on their website either. Anyhow, I assume you are winding with enameled wire? Regarless, good luck with the project and let us all know how it works out!

Scott
N0EDV

David Duxbury wrote:

> Hi Scott I have tried and no way can i get 40 turns in without
> overlapping, also is it correct to wind on only 80 percent of the core
>
> Scott wrote:
>
>> Remember, each time the wire passes through the core is counted as a
>> turn. In other words, just passing the wire straight through the core
>> is one turn. 24 gauge wire should be fairly easy to get 40 turns in a
>> single pass. Toroids are usually wound about 330 degrees around (a 30
>> degree gap between start and end of winding)...
>>
>> Scott
>>
>>
>> David Duxbury wrote:
>>
>>> Good day I am putting together a Vectronics 80 Meter Transceiver
>>> Kit , the problem I have is winding the T50-2 toroid , the
>>> instructions state to wind 40 turns of 24 gauge wire, would that be
>>> two passes of twenty as forty on a single pass is nigh impossible.
>>> Help would be appreciated.
>>
>>
>>

--
Scott
http://corbenflyer.tripod.com/
Building RV-4

Gotta Fly or Gonna Die

2599. NEED: Schematics for building a broad band frequency jammer (FM 88M-108M)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-18 11:55:52 UTC
From: nina.p20@gmail.com
Message-ID: <992361df.0409180355.582965c7@posting.google.com>
Source record: 23184
Cross-posted to: sci.electronics.basics,sci.electronics.design,alt.radio.pirate,rec.radio.amateur.homebrew,alt.2600

I would like to build a broad band frequency jammer for the FM
broadcast band. I have neighbors that like to play that damn music too
loud all day long. I figure if they turn it load and their station
goes off the air for a while they might get the message. ;-) :-D
If they keep the volume at a respectful level they will be allowed to
listen to their music as they wish as long as I don't have to listen
to it at uncomfortable levels.
I know this is entirely illegal and don't care about it. This is war
(!!!)and I plan on winning.
If you have plans for something that would help me achieve my goal I
would like to hear of it. My electronics skills are advanced (I've
used to build and design "bugs" for many years, I own a good equipped
lab, enough that I could build a project.
I have some experience with rf broadcast circuits.
The proximity of the offending radio's location to my house is quite
near so I don't believe a transmitter with an overly large
power...something between 3-5W
will be enough...LOL....
I'm "jamming" this neighbour with a 5W transmitter, but have to change
the frequency MANUALLY as soon as he changes the station, so I cannot
figure out how to do it automatically...
I'll be VERY THANKFUL for your help and ideas :)
TIA
Nina
nina.p20@gmail.com

2600. Re: British Intelligence's SuperBug

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-18 11:57:13 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <5a8ok0dhdfc3kkothom15k946m90orjnm8@4ax.com>
Source record: 23183
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Sat, 18 Sep 2004 11:13:00 +0100, nospam <nospam@nospam.invalid>
wrote:

>Paul Burridge <pb@notthisbit.osiris1.co.uk> wrote:
>
>>This must be a major embarrassment for the security services in
>>Britain.
>
>Did it have "if found please return to MI5" stamped on it?

No, but probably "Property of HMG" which is near enough the same
thing. :-)

>You don't know
>who made or installed it.

A one-eyed apprentice carpenter, by the look of it. Get those big,
wobbly numbers in marker pen: 1,2,3,4,5,6 so they'd remember which
order the blocks were supposed to be connected up. :-)

>"Party chairman Mitchel McLaughlin said it was a highly sophisticated
>device with a large battery pack and the party had no idea how long it had
>been in place."

Yeah, well he's Irish, isn't he, and probably thinks the electric
light bulb is "highly sophisticated." ;->

>He and you apparently have no idea when it was installed so you have no
>idea what the state of the art was when it was made.

The date stamp on the batteries ought to provide some clue. "Best
before January 1946" would be my guess. :-)
--

"What is now proved was once only imagin'd." - William Blake, 1793.

2601. Re: NEED: Schematics for building a broad band frequency jammer (FM 88M-108M)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-18 12:52:50 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <9gbok05kvc29huvp0dka4hugrtsbg1is54@4ax.com>
Source record: 23185
Cross-posted to: sci.electronics.basics,sci.electronics.design,alt.radio.pirate,rec.radio.amateur.homebrew,alt.2600

On 18 Sep 2004 04:55:52 -0700, nina.p20@gmail.com (Nina) wrote:

>I would like to build a broad band frequency jammer for the FM
>broadcast band. I have neighbors that like to play that damn music too
>loud all day long. I figure if they turn it load and their station
>goes off the air for a while they might get the message. ;-) :-D
> If they keep the volume at a respectful level they will be allowed to
>listen to their music as they wish as long as I don't have to listen
>to it at uncomfortable levels.
> I know this is entirely illegal and don't care about it. This is war
>(!!!)and I plan on winning.
> If you have plans for something that would help me achieve my goal I
>would like to hear of it. My electronics skills are advanced (I've
>used to build and design "bugs" for many years, I own a good equipped
>lab, enough that I could build a project.
>I have some experience with rf broadcast circuits.

Sounds like you don't need any help, then.
Use one of your old FM bugs and adapt to sweep the band with a
sawtooth generator varying the reverse bias on a suitably chosen
varactor diode as part of the frequency determining section. Then
hitch the output of your bug to a couple of additional broad(ish) band
RF amplification stages which you will no doubt have no problem
designing. Presumably you know all this, anyway.

>The proximity of the offending radio's location to my house is quite
>near so I don't believe a transmitter with an overly large
>power...something between 3-5W
>will be enough...LOL....
>I'm "jamming" this neighbour with a 5W transmitter, but have to change
>the frequency MANUALLY as soon as he changes the station, so I cannot
>figure out how to do it automatically...

So you want to wipe out the whole of the band to save you the bother
of retuning? I don't think you've thought this through very well. What
about everyone else in the neighbourhood who presumably don't annoy
others with too much volume? They're going to get wiped out, too. 3-5W
can cause quite a bit of widespread local disruption unless you're in
a strong signal area.
--

"What is now proved was once only imagin'd." - William Blake, 1793.

2602. Re: NEED: Schematics for building a broad band frequency jammer (FM 88M-108M)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-18 13:15:14 UTC
From: John Fields <jfields@austininstruments.com>
Message-ID: <d4dok09ueotfemagk53dl3iobag4056sr6@4ax.com>
Source record: 23186
Cross-posted to: sci.electronics.basics,sci.electronics.design,alt.radio.pirate,rec.radio.amateur.homebrew,alt.2600

On 18 Sep 2004 04:55:52 -0700, nina.p20@gmail.com (Nina) wrote:

>I'm "jamming" this neighbour with a 5W transmitter, but have to change
>the frequency MANUALLY as soon as he changes the station, so I cannot
>figure out how to do it automatically...

Track the L.O.

--
John Fields

2603. Re: NEED: Schematics for building a broad band frequency jammer (FM 88M-108M)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-18 13:34:47 UTC
From: mike <spamme0@juno.com>
Message-ID: <414C3977.4050108@juno.com>
Source record: 23187
Cross-posted to: sci.electronics.basics,sci.electronics.design,alt.radio.pirate,rec.radio.amateur.homebrew,alt.2600

Nina wrote:
> I would like to build a broad band frequency jammer for the FM
> broadcast band.
snip

> I know this is entirely illegal and don't care about it. This is war
> (!!!)and I plan on winning.

You really haven't thought this through have you.
Your neighbor isn't doing anything illegal.
Your plan IS illegal.
You can EASILY be located by the authorities.
STIFF fines are involved.
If you're in the US, all they gotta do is call the FCC
and you're toast.
If you're gonna wage war, you should have a winning strategy.
Your current one ain't!
mike

--
Return address is VALID.
Wanted, 12.1" LCD for Gateway Solo 5300. Samsung LT121SU-121
Bunch of stuff For Sale and Wanted at the link below.
Compaq Aero floppy,ram,battery.
MINT HP-41CV, 2-METER AMPS, 200CH SCANNER
http://www.geocities.com/SiliconValley/Monitor/4710/

2604. Re: Toriod winding

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-18 13:39:33 UTC
From: Bengt
Message-ID: <gUW2d.2125$L43.1697@amstwist00>
Source record: 23188

David Duxbury wrote:
> Hi again Guys I phoned the Vectronics people all I got from them was
> yes you can wind forty turns onto the core, I say Bull.... I read in the
> same instructions to wind on only 80 percentof the core, now I am a real
> quandary? I am new to this but I hope not stupid, help please Dave.
>
> David Duxbury wrote:
>
>> Good day I am putting together a Vectronics 80 Meter Transceiver
>> Kit , the problem I have is winding the T50-2 toroid , the
>> instructions state to wind 40 turns of 24 gauge wire, would that be
>> two passes of twenty as forty on a single pass is nigh impossible.
>> Help would be appreciated.

Nobody has asked you, so I put in the question here.

Are you sure that you have the right toroid?
Maybe you have mixed them up, Maybe the kit is delivered with wrong toroid?

When Vectronic and the kit manual says that it could be done, maybe you are
lookoing in the wrong direction?

73 de Ben/SM0KBW

2605. Re: NEED: Schematics for building a broad band frequency jammer (FM 88M-108M)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-18 13:47:41 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <10X2d.46051$KU5.16525@edtnps89>
Source record: 23189
Cross-posted to: sci.electronics.basics,sci.electronics.design,alt.radio.pirate,rec.radio.amateur.homebrew

Just use a Ramsay kit, wipe out whole goddam FM band in one go!

--
Gregg t3h g33k
"Ratings are for transistors....tubes have guidelines"
http://geek.scorpiorising.ca

2606. Re: Toriod winding

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-18 13:52:17 UTC
From: David Duxbury <dduxbury@cogeco.ca>
Message-ID: <d4X2d.4924$CC3.144858@read2.cgocable.net>
Source record: 23190

Hi Bengt I am sure they are the correct toroids no bigger would fit
thanks for your info, Dave.

Bengt wrote:
>
> Are you sure that you have the right toroid?
> Maybe you have mixed them up, Maybe the kit is delivered with wrong toroid?
>
> When Vectronic and the kit manual says that it could be done, maybe you are
> lookoing in the wrong direction?
>
>
> 73 de Ben/SM0KBW

2607. Re: British Intelligence's SuperBug

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-18 14:08:54 UTC
From: Genome <genome@nothere.net>
Message-ID: <WjX2d.308$H%1.266@newsfe6-win.ntli.net>
Source record: 23191
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

"Paul Burridge" <pb@notthisbit.osiris1.co.uk> wrote in message
news:luvnk0deh1fp4m6vtm9hmuu5thu8qvsboh@4ax.com...
> This must be a major embarrassment for the security services in
> Britain. The sheer size of this thing, I mean. And the fact that it
> appears to have been designed about 60 years ago and runs off dozens
> of penlight cells. Hardly state-of-the-art!
> BTW, for anyone that hasn't seen pictures of Gerry Adams looking very
> cross standing next to this heap of junk; it's about 6 feet long by
> 4"X8" and not exactly easily hidden (which is probably why it was
> discovered :-))
> --
>
> "What is now proved was once only imagin'd." - William Blake, 1793.

Perhaps you'd like to question why 'Terrorist' Gerry Adams didn't spot such
a big thing being installed in the first place and only now chooses to have
his picture taken next door to it whilst looking annoyed.

Perhaps you'd also like to question your own inability to recognise that you
are in fact a sad wanker.

Unfortunately both you and Gerry Adams, and I'm sure he'll be dismayed to be
mentioned in the same sentence as your good self, suffer from the same lack
of competance when it comes to self analysis.

Gerry Adams does it by choice and still believes, you do it because you
can't 'think' any better.

You're both still wankers.

DNA

DNA

2608. Re: British Intelligence's SuperBug

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-18 14:26:52 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <nbhok0tdbj9sddif92316g4an6oonieupj@4ax.com>
Source record: 23193
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Sat, 18 Sep 2004 14:08:54 GMT, "Genome" <genome@nothere.net> wrote:

[snip]

>You're both still wankers.

Thanks for sharing. BTW, isn't it about time you put me back in your
killfile?
--

"What is now proved was once only imagin'd." - William Blake, 1793.

2609. Re: British Intelligence's SuperBug

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-18 14:39:50 UTC
From: Fred Bloggs <nospam@nospam.com>
Message-ID: <414C48B4.9060507@nospam.com>
Source record: 23194
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

Paul Burridge wrote:
> This must be a major embarrassment for the security services in
> Britain. The sheer size of this thing, I mean. And the fact that it
> appears to have been designed about 60 years ago and runs off dozens
> of penlight cells. Hardly state-of-the-art!
> BTW, for anyone that hasn't seen pictures of Gerry Adams looking very
> cross standing next to this heap of junk; it's about 6 feet long by
> 4"X8" and not exactly easily hidden (which is probably why it was
> discovered :-))

Looks like they originally intended it to be disguised as a desk- but
then the thing consumed so much power, it would lose credibility because
it was getting so warm.

2610. Addendum to "Schematics for building a broad band frequency jammer"

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-18 14:41:24 UTC
From: nina.p20@gmail.com
Message-ID: <992361df.0409180641.65758764@posting.google.com>
Source record: 23195
Cross-posted to: sci.electronics.basics,sci.electronics.design,alt.radio.pirate,rec.radio.amateur.homebrew,alt.2600

I'd like to clarify something that I've missed:
I'm ready to pay for your help if needed.
TIA
Nina
nina.p20@gmail.com

2611. Re: Addendum to "Schematics for building a broad band frequency jammer"

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-18 14:57:11 UTC
From: Me <no-address_for_spammers@no-address.com>
Message-ID: <imiok010ko1a24eodbae186cjskh0qsn24@4ax.com>
Source record: 23196
Cross-posted to: sci.electronics.basics,sci.electronics.design,alt.radio.pirate,rec.radio.amateur.homebrew,alt.2600

On 18 Sep 2004 07:41:24 -0700, nina.p20@gmail.com (Nina) wrote:

>I'd like to clarify something that I've missed:
>I'm ready to pay for your help if needed.
>TIA
>Nina
>nina.p20@gmail.com

I see no reason to try and jam the entire band. Just put together a simple FM transmitter and as someone earlier suggested, transmit a squeal or something equally irritating over whatever station they're listening to. As M->P suggested, that will be far easier to accomplish technically. If you need schematics for a simple FM transmitter that's very easy to build, yet very effective I can help you there. I've built and used several on this design. In fact, there's a drag strip in GA using a transmitter I built off of this schematic using it to transmit race stats so people can listen in their cars and with head sets so they can hear over the loud car exhaust. Also got the board foil design and component layout making it super simple to build if you want to go the professional route.

2612. Re: Addendum to "Schematics for building a broad band frequency jammer"

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-18 15:21:19 UTC
From: Roger Johansson <no-email@home.se>
Message-ID: <Xns9568B144C25A086336@130.133.1.4>
Source record: 23197
Cross-posted to: sci.electronics.basics,sci.electronics.design,alt.radio.pirate,rec.radio.amateur.homebrew,alt.2600

nina.p20@gmail.com (Nina) wrote:

> I'd like to clarify something that I've missed:
> I'm ready to pay for your help if needed.

You will only get yourself in more trouble by jamming their radio.
They can come over and beat you up if/when they find out who is jamming.
You can go to jail or pay heavy fines when the authorities discover you,
and they often need only a few seconds to pinpoint the source of an
offending radio transmission.

A much better alternative is to increase the sound isolation between you
and the neighbor.

Use some wooden planks to build a frame which covers the wall(s) to keep
the construction steady. Put sound isolating material in the frame, use
heave cloth type of materials, like heavy old type mattrasses (not foam
plastic), different types of mats, wool blankets, etc.

Fiber board is also good, combined with thick layers of heavy textiles on
both sides.
Put heavy mats on your floor if the sound comes from there.
Build an inner ceiling if the sound comes from up above.

After soundproofing your apartment, or parts of it, you can use your own
sound source to create a low volume but masking effect which means you
hear a lot less from your neighbors because you have your own favorite
music running day and night.

Another alternative is to talk to them and tell them to stop disturbing
you. That will work if they are actually trying to make you do that.
There are lots of religious people who are actively trying to make their
neighbors strong minded so they can come to God or something like that.

A problem with that approach is that they will probably only be
encouraged by that and start other manipulations to force you to become
even stronger. So you will end up with your brain filled up by the holy
wrath, or the holy spirit, just like their brains.

--
Roger J.

2613. Re: Addendum to "Schematics for building a broad band frequency jammer"

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-18 15:57:21 UTC
From: "Dr. Anton T. Squeegee" <SpammersAreVermin@dev.null>
Message-ID: <MPG.1bb5fabb131888bc9897bd@192.168.42.131>
Source record: 23048
Cross-posted to: sci.electronics.basics,sci.electronics.design,alt.radio.pirate,rec.radio.amateur.homebrew,alt.2600

In article <992361df.0409180641.65758764@posting.google.com>, nina.p20
@gmail.com says...

> I'd like to clarify something that I've missed:
> I'm ready to pay for your help if needed.

I can't speak for others, but no amount of money would convince me
to sell out my own ethics so easily.

I suggest you involve your local police. There are likely noise
ordinances in your area which your noisy neighbor may be in violation
of.

--
Dr. Anton T. Squeegee, Director, Dutch Surrealist Plumbing Institute.
(Known to some as Bruce Lane, ARS KC7GR,
kyrrin (a/t) bluefeathertech[d=o=t]calm -- www.bluefeathertech.com
"If Salvador Dali had owned a computer, would it have been equipped
with surreal ports?"

2614. Re: NEED: Schematics for building a broad band frequency jammer (FM 88M-108M)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-18 16:05:39 UTC
From: Lady Chatterly <pb@dev.null>
Message-ID: <84e18fe.b5d1c472@chatterly.news.teranews.com>
Source record: 23049
Cross-posted to: sci.electronics.basics,sci.electronics.design,alt.radio.pirate,rec.radio.amateur.homebrew,alt.2600

In article <9gbok05kvc29huvp0dka4hugrtsbg1is54@4ax.com>,
Paul Burridge <pb@notthisbit.osiris1.co.uk> wrote:
>
>Sounds like you don't need any help, then.
>Use one of your old FM bugs and adapt to sweep the band with a
>sawtooth generator varying the reverse bias on a suitably chosen
>varactor diode as part of the frequency determining section. Then
>hitch the output of your bug to a couple of additional broad(ish) band
>RF amplification stages which you will no doubt have no problem
>designing. Presumably you know all this, anyway.

There is no more valour in you than in a wild duck.

2615. Re: Addendum to "Schematics for building a broad band frequency jammer"

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-18 16:26:50 UTC
From: John Fields <jfields@austininstruments.com>
Message-ID: <19ook0toi5tubpdird5th9kb13pod3i3k9@4ax.com>
Source record: 23050
Cross-posted to: sci.electronics.basics,sci.electronics.design,alt.radio.pirate,rec.radio.amateur.homebrew,alt.2600

On 18 Sep 2004 07:41:24 -0700, nina.p20@gmail.com (Nina) wrote:

>I'd like to clarify something that I've missed:
>I'm ready to pay for your help if needed.

I believe that soliciting for illegal services is, in itself, illegal.

--
John Fields

2616. Re: Addendum to "Schematics for building a broad band frequency jammer"

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-18 16:31:40 UTC
From: Me <no-address_for_spammers@no-address.com>
Message-ID: <9mook0psvj9bc8rnlda5kfgv0u9e6urpnv@4ax.com>
Source record: 23051
Cross-posted to: sci.electronics.basics,sci.electronics.design,alt.radio.pirate,rec.radio.amateur.homebrew,alt.2600

On Sat, 18 Sep 2004 12:07:02 -0400, "Meat-->Plow"
<Meat@petitmorte.net> wrote:

>On Sat, 18 Sep 2004 10:57:11 -0400, Me
><no-address_for_spammers@no-address.com>,wrote:
>
>>On 18 Sep 2004 07:41:24 -0700, nina.p20@gmail.com (Nina) wrote:
>>
>>>I'd like to clarify something that I've missed:
>>>I'm ready to pay for your help if needed.
>>>TIA
>>>Nina
>>>nina.p20@gmail.com
>>
>>I see no reason to try and jam the entire band. Just put together a
>>simple FM transmitter and as someone earlier suggested, transmit a
>>squeal or something equally irritating over whatever station they're
>>listening to. As M->P suggested, that will be far easier to accomplish
>>technically. If you need schematics for a simple FM transmitter that's
>>very easy to build, yet very effective I can help you there. I've
>>built and used several on this design. In fact, there's a drag strip
>>in GA using a transmitter I built off of this schematic using it to
>>transmit race stats so people can listen in their cars and with head
>>sets so they can hear over the loud car exhaust. Also got the board
>>foil design and component layout making it super simple to build if
>>you want to go the professional route.
>
>I thought the person already had a transmitter

Oops... didn't read all the way down, now did I. :-)

2617. Re: NEED: Schematics for building a broad band frequency jammer (FM 88M-108M)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-18 18:43:22 UTC
From: nina.p20@gmail.com
Message-ID: <992361df.0409181043.18c086d1@posting.google.com>
Source record: 23052
Cross-posted to: sci.electronics.basics,sci.electronics.design,alt.radio.pirate,rec.radio.amateur.homebrew,alt.2600

@ Paul Burridge,
You wrote:
"Sounds like you don't need any help, then.
Use one of your old FM bugs and adapt to sweep the band with a
sawtooth generator varying the reverse bias on a suitably chosen
varactor diode as part of the frequency determining section. Then
hitch the output of your bug to a couple of additional broad(ish) band
RF amplification stages which you will no doubt have no problem
designing. Presumably you know all this, anyway."

You are wrong, I do need help...
Theoretically, I know this very well, I thought to use a varactor
diode for
this job, but - and here I need your (or other members)help...
I don't know how to match making between my old bugs and a varactor
diode sweeping circuit, and have no idea how to build one.
I'll be very thankful for help :)
Nina

Paul Burridge <pb@notthisbit.osiris1.co.uk> wrote in message
news:<9gbok05kvc29huvp0dka4hugrtsbg1is54@4ax.com>...
> On 18 Sep 2004 04:55:52 -0700, nina.p20@gmail.com (Nina) wrote:
>
> >I would like to build a broad band frequency jammer for the FM
> >broadcast band. I have neighbors that like to play that damn music too
> >loud all day long. I figure if they turn it load and their station
> >goes off the air for a while they might get the message. ;-) :-D
> > If they keep the volume at a respectful level they will be allowed to
> >listen to their music as they wish as long as I don't have to listen
> >to it at uncomfortable levels.
> > I know this is entirely illegal and don't care about it. This is war
> >(!!!)and I plan on winning.
> > If you have plans for something that would help me achieve my goal I
> >would like to hear of it. My electronics skills are advanced (I've
> >used to build and design "bugs" for many years, I own a good equipped
> >lab, enough that I could build a project.
> >I have some experience with rf broadcast circuits.
>
> Sounds like you don't need any help, then.
> Use one of your old FM bugs and adapt to sweep the band with a
> sawtooth generator varying the reverse bias on a suitably chosen
> varactor diode as part of the frequency determining section. Then
> hitch the output of your bug to a couple of additional broad(ish) band

> RF amplification stages which you will no doubt have no problem
> designing. Presumably you know all this, anyway.
>
> >The proximity of the offending radio's location to my house is quite
> >near so I don't believe a transmitter with an overly large
> >power...something between 3-5W
> >will be enough...LOL....
> >I'm "jamming" this neighbour with a 5W transmitter, but have to change
> >the frequency MANUALLY as soon as he changes the station, so I cannot
> >figure out how to do it automatically...
>
> So you want to wipe out the whole of the band to save you the bother
> of retuning? I don't think you've thought this through very well. What
> about everyone else in the neighbourhood who presumably don't annoy
> others with too much volume? They're going to get wiped out, too. 3-5W
> can cause quite a bit of widespread local disruption unless you're in
> a strong signal area.

2618. Re: NEED: Schematics for building a broad band frequency jammer (FM 88M-108M)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-18 19:22:02 UTC
From: nina.p20@gmail.com
Message-ID: <992361df.0409181121.547277d3@posting.google.com>
Source record: 23053
Cross-posted to: sci.electronics.basics,sci.electronics.design,alt.radio.pirate,rec.radio.amateur.homebrew,alt.2600

OK guys,
Thanx meantime for your responses.
Not getting much help...:(
I know it's illegal, I know it's dangerous, and I know that I can build a huge wall between our houses....
But, I'm still interested to build this device, for reasons that I cannot mention here...
If anyone wants to help me, please do, but I don't like conferences about my skills, or legal advices etc.
TIA to anyone who actually tries to help :)
NINA

nina.p20@gmail.com (Nina) wrote in message news:<992361df.0409180355.582965c7@posting.google.com>...
> I would like to build a broad band frequency jammer for the FM
> broadcast band. I have neighbors that like to play that damn music too
> loud all day long. I figure if they turn it load and their station
> goes off the air for a while they might get the message. ;-) :-D
> If they keep the volume at a respectful level they will be allowed to
> listen to their music as they wish as long as I don't have to listen
> to it at uncomfortable levels.
> I know this is entirely illegal and don't care about it. This is war
> (!!!)and I plan on winning.
> If you have plans for something that would help me achieve my goal I
> would like to hear of it. My electronics skills are advanced (I've
> used to build and design "bugs" for many years, I own a good equipped
> lab, enough that I could build a project.
> I have some experience with rf broadcast circuits.
> The proximity of the offending radio's location to my house is quite
> near so I don't believe a transmitter with an overly large
> power...something between 3-5W
> will be enough...LOL....
> I'm "jamming" this neighbour with a 5W transmitter, but have to change
> the frequency MANUALLY as soon as he changes the station, so I cannot
> figure out how to do it automatically...
> I'll be VERY THANKFUL for your help and ideas :)
> TIA
> Nina
> nina.p20@gmail.com

2619. Re: NEED: Schematics for building a broad band frequency jammer (FM 88M-108M)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-18 20:02:10 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <dv4pk0d19brsieqppbn1ai3touik59cj59@4ax.com>
Source record: 23054

On Sat, 18 Sep 2004 18:13:08 GMT, Jim Higgins <me7@privacy.net> wrote:

>On 18 Sep 2004 04:55:52 -0700, in
><992361df.0409180355.582965c7@posting.google.com>,
>nina.p20@gmail.com (Nina) wrote:
>
>>I would like to build a broad band frequency jammer for the FM
>>broadcast band. I have neighbors that like to play that damn music too
>>loud all day long. I figure if they turn it load and their station
>>goes off the air for a while they might get the message. ;-) :-D
>> If they keep the volume at a respectful level they will be allowed to
>>listen to their music as they wish as long as I don't have to listen
>>to it at uncomfortable levels.
>> I know this is entirely illegal and don't care about it. This is war
>>(!!!)and I plan on winning.
>> If you have plans for something that would help me achieve my goal I
>>would like to hear of it. My electronics skills are advanced (I've
>>used to build and design "bugs" for many years, I own a good equipped
>>lab, enough that I could build a project.
>>I have some experience with rf broadcast circuits.
>>The proximity of the offending radio's location to my house is quite
>>near so I don't believe a transmitter with an overly large
>>power...something between 3-5W
>>will be enough...LOL....
>>I'm "jamming" this neighbour with a 5W transmitter, but have to change
>>the frequency MANUALLY as soon as he changes the station, so I cannot
>>figure out how to do it automatically...
>>I'll be VERY THANKFUL for your help and ideas :)
>>TIA Nina nina.p20@gmail.com
>
>Put a tone on your transmissions. Rig up a small circuit to
>drive a stepper motor or a servo motor that will be used to tune
>the transmiter. Rig up a microphone (with small parabolic
>refelctor if necessary) to deceive the sound from the offending
>radio and feed it to the control circuit which includes a tone
>detector that stops the tuning when it hears the tone. Otherwise
>the circuit should be set to tune from one end of the band to the
>other. There's your automated jammer.
>
>Don't get caught.

it appears that most of the proposers have little experience in this
field, the simplest 'jammer' would indeed have much more effect,

use slow morse cw transmitter

J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

2620. Re: NEED: Schematics for building a broad band frequency jammer (FM 88M-108M)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-18 20:05:57 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <v65pk01mjgh2gjovgq3bt9fgjpmvngq8pb@4ax.com>
Source record: 23055

On Sat, 18 Sep 2004 18:13:08 GMT, Jim Higgins <me7@privacy.net> wrote:

>On 18 Sep 2004 04:55:52 -0700, in
><992361df.0409180355.582965c7@posting.google.com>,
>nina.p20@gmail.com (Nina) wrote:
>
>>I would like to build a broad band frequency jammer for the FM
>>broadcast band. I have neighbors that like to play that damn music too
>>loud all day long. I figure if they turn it load and their station
>>goes off the air for a while they might get the message. ;-) :-D
>> If they keep the volume at a respectful level they will be allowed to
>>listen to their music as they wish as long as I don't have to listen
>>to it at uncomfortable levels.
>> I know this is entirely illegal and don't care about it. This is war
>>(!!!)and I plan on winning.
>> If you have plans for something that would help me achieve my goal I
>>would like to hear of it. My electronics skills are advanced (I've
>>used to build and design "bugs" for many years, I own a good equipped
>>lab, enough that I could build a project.
>>I have some experience with rf broadcast circuits.
>>The proximity of the offending radio's location to my house is quite
>>near so I don't believe a transmitter with an overly large
>>power...something between 3-5W
>>will be enough...LOL....
>>I'm "jamming" this neighbour with a 5W transmitter, but have to change
>>the frequency MANUALLY as soon as he changes the station, so I cannot
>>figure out how to do it automatically...
>>I'll be VERY THANKFUL for your help and ideas :)
>>TIA Nina nina.p20@gmail.com
>
>Put a tone on your transmissions. Rig up a small circuit to
>drive a stepper motor or a servo motor that will be used to tune
>the transmiter. Rig up a microphone (with small parabolic
>refelctor if necessary) to deceive the sound from the offending
>radio and feed it to the control circuit which includes a tone
>detector that stops the tuning when it hears the tone. Otherwise
>the circuit should be set to tune from one end of the band to the
>other. There's your automated jammer.
>
>Don't get caught.

it appears that most of the proposers have little experience in this
field, the simplest 'jammer' would indeed have much more effect,

use slow morse cw transmitter - preferably on a legal frequency, 6m
operation is often bad for interference

J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

2621. Re: NEED: Schematics for building a broad band frequency jammer (FM 88M-108M)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-18 20:34:44 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <ip6pk0tleq4ee38d67jv5sgvvti4f9ccmq@4ax.com>
Source record: 23056
Cross-posted to: sci.electronics.basics,sci.electronics.design,alt.radio.pirate,rec.radio.amateur.homebrew,alt.2600

On 18 Sep 2004 11:43:22 -0700, nina.p20@gmail.com (Nina) wrote:

>@ Paul Burridge,
>You wrote:
>"Sounds like you don't need any help, then.
>Use one of your old FM bugs and adapt to sweep the band with a
>sawtooth generator varying the reverse bias on a suitably chosen
>varactor diode as part of the frequency determining section. Then
>hitch the output of your bug to a couple of additional broad(ish) band
>RF amplification stages which you will no doubt have no problem
>designing. Presumably you know all this, anyway."
>
>You are wrong, I do need help...
>Theoretically, I know this very well, I thought to use a varactor
>diode for
>this job, but - and here I need your (or other members)help...
>I don't know how to match making between my old bugs and a varactor
>diode sweeping circuit, and have no idea how to build one.

This site contains some useful info:

http://www.electrokits.com/id-fm_jammer.htm

And try alt.pirate.radio instead of alt.radio.pirate (you won't get
much help from anyone on the mainstream groups for an illegal aim like
you've publicised here, I'm afraid).
--

"What is now proved was once only imagin'd." - William Blake, 1793.

2622. Re: NEED: Schematics for building a broad band frequency jammer (FM 88M-108M)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-18 20:49:51 UTC
From: allana@hotmail.com
Message-ID: <oq7pk0pnuplmquo7pkh59mvme2t6vbqstc@4ax.com>
Source record: 23057
Cross-posted to: sci.electronics.basics,sci.electronics.design,alt.radio.pirate,rec.radio.amateur.homebrew,alt.2600

On 18 Sep 2004 04:55:52 -0700, nina.p20@gmail.com (Nina) wrote:

>I would like to build a broad band frequency jammer for the FM
>broadcast band. I have neighbors that like to play that damn music too
>loud all day long. I figure if they turn it load and their station
>goes off the air for a while they might get the message. ;-) :-D
> If they keep the volume at a respectful level they will be allowed to
>listen to their music as they wish as long as I don't have to listen
>to it at uncomfortable levels.
> I know this is entirely illegal and don't care about it. This is war
>(!!!)and I plan on winning.
> If you have plans for something that would help me achieve my goal I
>would like to hear of it. My electronics skills are advanced (I've
>used to build and design "bugs" for many years, I own a good equipped
>lab, enough that I could build a project.
>I have some experience with rf broadcast circuits.
>The proximity of the offending radio's location to my house is quite
>near so I don't believe a transmitter with an overly large
>power...something between 3-5W
>will be enough...LOL....

try a rotary spark generator..about as cheap as you can get..
>I'm "jamming" this neighbour with a 5W transmitter, but have to change
>the frequency MANUALLY as soon as he changes the station, so I cannot
>figure out how to do it automatically...
>I'll be VERY THANKFUL for your help and ideas :)
>TIA
>Nina
>nina.p20@gmail.com

2623. Re: Repairing Kenwood TS-820 (PA)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-18 20:50:54 UTC
From: rube <rube_not_goldberg@nospam.net>
Message-ID: <414C9FAC.B91454DF@nospam.net>
Source record: 23058

Hi,
please visit the kenwood reflector,
lots of good people there to help.

73 rube

http://mailman.qth.net/mailman/listinfo/kenwood

J M Noeding wrote:

> A friend is having trouble repairing TS820. The grid voltage for
> 6146's are broken somewhere although he has it from the power supply,
> he cannot find where it stops.
> He is told it is a wellknown problem, but now he needs further help to
> trace where the break is
>
> hpe to hear from you sn
>
> 73
> Jan-Martin
>
> ---
> J. M. Noeding, LA8AK, N-4623 Kristiansand
> http://home.online.no/~la8ak/c.htm

2624. Re: CB "Swing"? (proper AM modulation)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-18 21:31:27 UTC
From: Ian Jackson <IanJacksonRemoveThisBit@g3ohx.demon.co.uk>
Message-ID: <Tu96z3hvkKTBFwH7@g3ohx.demon.co.uk>
Source record: 23059

In message <2qp01gF11amgsU1@uni-berlin.de>, Yora Ishmel
<asasas@wewewewe.sdsd> writes
>
>"Chris" <REMOVEchris1379ME@bigfoot.com> wrote in message
>news:7WE1d.166$gG4.101@newsread1.news.pas.earthlink.net...
>> I will probably get some flames from this but here it goes. I have been
>into
>> CB radio for a number of years but don't agree with most of what I hear.
>> That's just one of the reasons I'm looking to amateur radio. One of the
>> things I often hear in CB circles is that one should turn a 4 watt AM
>radio
>> down to 1 1/2 watts and let it "SWING". How is this possible? What really
>> happens when you do this? I think I know. So, how much carrier should you
>> have for an amp or final stage with a known max output. In other words, if
>> it can produce 8 watts max unmodulated carrier, is a 4 watt carrier ideal?
>> If it produces 100 watts, is 50 watts ideal? How much "space"does it need
>> for proper modulation? Is there a website that explains this well? I'm an
>> electronics tech thirsting for knowledge.
>>
>> Chris
>>
>
>
>
>
>AM 100% modulation is max before distortion of Audio.
> The carrier has 50% of the power, the two sidebands have the other 50%.

Actually the carrier has 2 thirds of the power, and the sidebands 1
third.
A 4 watt carrier "carries" 2 watts of audio when modulated to 100%. Each
sideband is 6dB down (x1/4) on the carrier power (which just sits there,
remaining constant). The peak envelope power is 4 times the carrier
power (ie 16 watts), but there's only 2 watts of 'speech' there. This is
why SSB is more effective.

>

>4 watt is 4 watt, why turn it down, urban rumor
>No "space" is needed unless you have a cheap rig.
>The carrier will be at 2 watt with 100% modulation.
>
>much of CB is single sideband. Then there is no carrier, and no other
>sideband, so you can get 4 time as much, over AM
>

>

Cheers,
Ian.
--

2625. tandem-match wattmeter

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-18 21:59:03 UTC
From: Angela & Gary <gmbelcas@charter.net>
Message-ID: <gmbelcas-C641AA.14590318092004@comcast.dca.giganews.com>
Source record: 23060

I'm wondering if anybody out there has successfully replaced the analog processor portion of this circuit with a micro?? Would like to hear from you as I'm contemplating the same.

gary

2626. Re: NEED: Schematics for building a broad band frequency jammer (FM 88M-108M)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-18 22:27:09 UTC
From: Lady Chatterly <jfields@dev.null>
Message-ID: <ac98fe6.1d683ec7@chatterly.news.teranews.com>
Source record: 23062
Cross-posted to: sci.electronics.basics,sci.electronics.design,alt.radio.pirate,rec.radio.amateur.homebrew,alt.2600

In article <l6dpk0hss91n0mnod0mn4s0516qn6jrovp@4ax.com>,
John Fields <jfields@austininstruments.com> wrote:
>
>First time around you knew it was illegal, this time around you still
>know it, but you don't want to hear about it _and_ you want someone to
>help you even though you've said you know it's illegal?

If I said anything to you that I should be sorry for, I'm glad.

>You're not the sharpest knife in the drawer, huh, Nina?

You're only purpose in life is to serve as a warning to others against the
dangers of self-lobotomy surgery.

2627. Re: NEED: Schematics for building a broad band frequency jammer (FM 88M-108M)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-18 22:28:03 UTC
From: John Fields <jfields@austininstruments.com>
Message-ID: <l6dpk0hss91n0mnod0mn4s0516qn6jrovp@4ax.com>
Source record: 23061
Cross-posted to: sci.electronics.basics,sci.electronics.design,alt.radio.pirate,rec.radio.amateur.homebrew,alt.2600

On 18 Sep 2004 12:22:02 -0700, nina.p20@gmail.com (Nina) wrote:

>OK guys,
>Thanx meantime for your responses.
>Not getting much help...:(
>I know it's illegal, I know it's dangerous, and I know that I can build a
>huge wall between our houses....
>But, I'm still interested to build this device, for reasons that I cannot
>mention here...
>If anyone wants to help me, please do, but I don't like conferences about my
>skills, or legal advices etc.
>TIA to anyone who actually tries to help :)
>NINA

First time around it was to jam a neighbor's loud radio, this time
around you can't say what it _really_ is.

First time around you knew it was illegal, this time around you still
know it, but you don't want to hear about it _and_ you want someone to
help you even though you've said you know it's illegal?

You're not the sharpest knife in the drawer, huh, Nina?

--
John Fields

2628. Re: NEED: Schematics for building a broad band frequency jammer (FM 88M-108M)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-18 22:56:47 UTC
From: John Fields <jfields@austininstruments.com>
Message-ID: <iiepk0560k0of0m3ei3b7ji90ha7p9ttpq@4ax.com>
Source record: 23063
Cross-posted to: sci.electronics.basics,sci.electronics.design,alt.radio.pirate,rec.radio.amateur.homebrew,alt.2600

On Sat, 18 Sep 2004 22:27:09 GMT, Lady Chatterly <jfields@dev.null>
wrote:

>In article <l6dpk0hss91n0mnod0mn4s0516qn6jrovp@4ax.com>,
>John Fields <jfields@austininstruments.com> wrote:
>>
>>First time around you knew it was illegal, this time around you still
>>know it, but you don't want to hear about it _and_ you want someone to
>>help you even though you've said you know it's illegal?
>
>If I said anything to you that I should be sorry for, I'm glad.

You should be sorry you opened your stupid fucking mouth, but as
starved as you must be for attention, even being shit on would make
you happy, no?

>>You're not the sharpest knife in the drawer, huh, Nina?
>
>You're only purpose in life is to serve as a warning to others against the
>dangers of self-lobotomy surgery.

You might as well try to learn to punctuate, you ignorant cunt,
because if that last sentence is any indication of your capacity for
wit you'll sure as hell never learn to flame.

Care to try again?

--
John Fields

2629. WANT: Kenwood TS450 Junker or boards

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-18 23:18:54 UTC
From: DOUGLAS SNOWDEN <SNOWDEN@peoplepc.com>
Message-ID: <yn33d.6327$mb6.3795@newsread3.news.atl.earthlink.net>
Source record: 23064
Cross-posted to: rec.radio.swap,rec.radio.amateur.homebrew,rec.radio.amateur.equipment

I have a TS450 that is coming back from the repair shop as costing more than it is worth to have it fixed. I suffered some sort of indirect lightning pulse, as it did not have an antenna connected and was turned off. The guy said that the IF board was bad, for sure, and maybe more. Therefore I am going to try and fix it in my spare time, which means it may sit for a long time. I would not bother, but the radio looks like a mint piece of equipment. So if someone has one that looks like crap, and has some good boards (especially the IF board), I would like to talk. Also would consider buying boards...

Doug, N4IJ
Carson, VA

2630. Re: Addendum to "Schematics for building a broad band frequency jammer"

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-19 00:23:04 UTC
From: dward7@earthlink.net
Message-ID: <dward7-1809041724540001@pool0007.cvx29-bradley.dialup.earthlink.net>
Source record: 23065
Cross-posted to: sci.electronics.basics,sci.electronics.design,alt.radio.pirate,rec.radio.amateur.homebrew,alt.2600

> If you need schematics for a simple FM transmitter that's
very easy to build, yet very effective I can help you there. I've
built and used several on this design. In fact, there's a drag strip
in GA using a transmitter I built off of this schematic using it to
transmit race stats so people can listen in their cars and with head
sets so they can hear over the loud car exhaust. Also got the board
foil design and component layout making it super simple to build if
you want to go the professional route.

How or where do i obtain the schematic and cb layout ??
dnw
dnelsonone@yahoo.com

--
---
don ward <dward7@earthlink.net>

2631. MS1307 and IRF520 rumors

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-19 00:33:10 UTC
From: Chris <REMOVEchris1379ME@bigfoot.com>
Message-ID: <at43d.1338$qA6.1022@newsread3.news.pas.earthlink.net>
Source record: 23066

Maybe somebody here can answer my question. The MS1307 is a MOSFET used in several HF amplifiers. All the ones I've seen have the numbers filed off. It is rumoured that these are just IRF520's with the numbers removed. Has anyone else heard this?

Chris

2632. Re: Addendum to "Schematics for building a broad band frequency jammer"

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-19 00:59:40 UTC
From: Me <no-address_for_spammers@no-address.com>
Message-ID: <h5mpk0dsrsh0ntf39qvt99husmujmvb634@4ax.com>
Source record: 23067
Cross-posted to: sci.electronics.basics,sci.electronics.design,alt.radio.pirate,rec.radio.amateur.homebrew,alt.2600

```
On Sat, 18 Sep 2004 13:10:18 -0400, "Meat-->Plow"
<Meat@petitmorte.net> wrote:

>On Sat, 18 Sep 2004 12:31:40 -0400, Me
><no-address_for_spammers@no-address.com>,wrote:
>
>>On Sat, 18 Sep 2004 12:07:02 -0400, "Meat-->Plow"
>><Meat@petitmorte.net> wrote:
>>
>>>On Sat, 18 Sep 2004 10:57:11 -0400, Me
>>><no-address_for_spammers@no-address.com>,wrote:
>>>
>>>>On 18 Sep 2004 07:41:24 -0700, nina.p20@gmail.com (Nina) wrote:
>>>>
>>>>I'd like to clarify something that I've missed:
>>>>I'm ready to pay for your help if needed.
>>>>TIA
>>>>Nina
>>>>nina.p20@gmail.com
>>>>
>>>>I see no reason to try and jam the entire band. Just put together a
>>>>simple FM transmitter and as someone earlier suggested, transmit a
>>>>squeal or something equally irritating over whatever station they're
>>>>listening to. As M->P suggested, that will be far easier to accomplish
>>>>technically. If you need schematics for a simple FM transmitter that's
>>>>very easy to build, yet very effective I can help you there. I've
>>>>built and used several on this design. In fact, there's a drag strip
>>>>in GA using a transmitter I built off of this schematic using it to
>>>>transmit race stats so people can listen in their cars and with head
>>>>sets so they can hear over the loud car exhaust. Also got the board
>>>>foil design and component layout making it super simple to build if
>>>>you want to go the professional route.
>>>
>>>I thought the person already had a transmitter
>>
>>Oops... didn't read all the way down, now did I. :-)
>
>The person said the PO was 5 watts. That sounds like a home
>brew unit. I used to own a 50 watt exciter. It was
>responsible for generating the FM frequency, modulating it,
>and amplifying it to 50 watts where it was originally
>designed to feed a 5000 watt commercial transmitter. It made
>a pretty decent little pirate radio station. I built a
```

>J-pole antenna out of some wire and PVC tubing and I got
>about a 5 mile radius with full quieting. Called the station
>WEED, muhahwahahahah.

Hehehe. The little unit I was describing is good for about a mile radius with a properly tuned vertical dipole. I've used one in a convoy so everyone in the group could listen to the same jams on the trip.

2633. Re: Addendum to "Schematics for building a broad band frequency jammer"

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-19 01:18:04 UTC
From: Me <no-address_for_spammers@no-address.com>
Message-ID: <ffnpk0p342gstv4b8oapli8re8618n7uvo@4ax.com>
Source record: 23068
Cross-posted to: sci.electronics.basics,sci.electronics.design,alt.radio.pirate,rec.radio.amateur.homebrew,alt.2600

On Sun, 19 Sep 2004 00:23:04 GMT, dward7@earthlink.net (don ward)
wrote:

>> If you need schematics for a simple FM transmitter that's
>very easy to build, yet very effective I can help you there. I've
>built and used several on this design. In fact, there's a drag strip
>in GA using a transmitter I built off of this schematic using it to
>transmit race stats so people can listen in their cars and with head
>sets so they can hear over the loud car exhaust. Also got the board
>foil design and component layout making it super simple to build if
>you want to go the professional route.
>
>How or where do i obtain the schematic and cb layout ??
>dnw
>dnelsonone@yahoo.com

Let me run to my office (where it happens to be), grab it and scan it
then I'll stick it on one of my web servers and post a URL.

2634. Re: MS1307 and IRF520 rumors

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-19 01:44:37 UTC
From: Dana Myers <dana.myers@gmail.com>
Message-ID: <9w53d.21201$jz2.6522@newssvr27.news.prodigy.com>
Source record: 23069

Chris wrote:
> Maybe somebody here can answer my question. The MS1307 is a MOSFET used in
> several HF amplifiers. All the ones I've seen have the numbers filed off. It
> is rumoured that these are just IRF520's with the numbers removed. Has
> anyone else heard this?

This page thinks so:

http://www.xs4all.nl/~barendh/Cateng/Cateng_fet.htm

25W HF power is not out of the question for an IRF520 @14V.
I used to get 40W on 20m out of IRF510s, the IRF520 probably
has less gain than the IRF510 but more power-handling ability.

Dana

2635. LF: PC bandscope plans/info

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-19 02:09:08 UTC
From: streamliner@aol.com
Message-ID: <414ce9e8.4323516@usenet.magma.ca>
Source record: 23070

Looking for info on building a bandscope/spectrum display to adapt to
a Kenwood TS-2000. Google turned up a few ideas but nothing usefull.
Planning to interface the receiver broadband IF prior to DSP filtering
to an adapter of some sort then into a PC for processing and display
of at least a 100 khz band spectrum. Anyone know of such a device and
where I might find technical information to build one. 73.s and TIA
Joko

2636. Re: NEED: Schematics for building a broad band frequency jammer (FM 88M-108M)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-19 02:10:03 UTC
From: DaveC <bobason456@hotmail.com>
Message-ID: <Xns956915DE4570ohirohotmailcom@203.96.16.33>
Source record: 23192
Cross-posted to: sci.electronics.basics,sci.electronics.design,alt.radio.pirate,rec.radio.amateur.homebrew,alt.2600

nina.p20@gmail.com (Nina) wrote in news:992361df.0409180355.582965c7
@posting.google.com:

> broad

Smear some Jam on your speekers and tune in to their frequency. Then pump
up the volume. Get real fat and stand in frount of the speekers, that's
your broad band. Or somthing.

DaveC

2637. Re: Addendum to "Schematics for building a broad band frequency jammer"

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-19 02:18:06 UTC
From: Me <no-address_for_spammers@no-address.com>
Message-ID: <1aqpk0lul4ufsbnlrta2snn62772u39117@4ax.com>
Source record: 23071
Cross-posted to: sci.electronics.basics,sci.electronics.design,alt.radio.pirate,rec.radio.amateur.homebrew,alt.2600

On Sat, 18 Sep 2004 21:29:26 -0400, "Meat-->Plow"
<Meat@petitmorte.net> wrote:

>On Sat, 18 Sep 2004 21:18:04 -0400, Me
><no-address_for_spammers@no-address.com>,wrote:
>
>>On Sun, 19 Sep 2004 00:23:04 GMT, dward7@earthlink.net (don ward)
>>wrote:
>>
>>>> If you need schematics for a simple FM transmitter that's
>>>very easy to build, yet very effective I can help you there. I've
>>>built and used several on this design. In fact, there's a drag strip
>>>in GA using a transmitter I built off of this schematic using it to
>>>transmit race stats so people can listen in their cars and with head
>>>sets so they can hear over the loud car exhaust. Also got the board
>>>foil design and component layout making it super simple to build if
>>>you want to go the professional route.
>>>
>>>How or where do i obtain the schematic and cb layout ??
>>>dnw
>>>dnelsonone@yahoo.com
>>
>>
>>Let me run to my office (where it happens to be), grab it and scan it
>>then I'll stick it on one of my web servers and post a URL.
>
>
>What's the power input to the final and what final amp ?

9 vdc keeps it legal, but it'll take considerably more.
As far as the final... ugh... IIRC the final was a 2N3096, but I'm not
sure now. It's been quite a few years since I did anything with that
print. Will post when I've got it up.

2638. Re: Addendum to "Schematics for building a broad band frequency jammer"

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-19 03:07:07 UTC
From: Me <no-address_for_spammers@no-address.com>
Message-ID: <f1tpk0hklv0onh6ccvjekqr22lcsi4t4c6@4ax.com>
Source record: 23072
Cross-posted to: sci.electronics.basics,sci.electronics.design,alt.radio.pirate,rec.radio.amateur.homebrew,alt.2600

On Sat, 18 Sep 2004 22:50:31 -0400, "Meat-->Plow"
<Meat@petitmorte.net> wrote:

>On Sat, 18 Sep 2004 22:18:06 -0400, Me
><no-address_for_spammers@no-address.com>,wrote:
>
>>On Sat, 18 Sep 2004 21:29:26 -0400, "Meat-->Plow"
>><Meat@petitmorte.net> wrote:
>>
>>>On Sat, 18 Sep 2004 21:18:04 -0400, Me
>>><no-address_for_spammers@no-address.com>,wrote:
>>>
>>>>On Sun, 19 Sep 2004 00:23:04 GMT, dward7@earthlink.net (don ward)
>>>>wrote:
>>>>
>>>>> If you need schematics for a simple FM transmitter that's
>>>>very easy to build, yet very effective I can help you there. I've
>>>>built and used several on this design. In fact, there's a drag strip
>>>>in GA using a transmitter I built off of this schematic using it to
>>>>transmit race stats so people can listen in their cars and with head
>>>>sets so they can hear over the loud car exhaust. Also got the board
>>>>foil design and component layout making it super simple to build if
>>>>you want to go the professional route.
>>>>
>>>>How or where do i obtain the schematic and cb layout ??
>>>>dnw
>>>>dnelsonone@yahoo.com
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>>>>
>>>>Let me run to my office (where it happens to be), grab it and scan it
>>>>then I'll stick it on one of my web servers and post a URL.
>>>
>>>
>>>What's the power input to the final and what final amp ?
>>
>>9 vdc keeps it legal, but it'll take considerably more.
>>As far as the final... ugh... IIRC the final was a 2N3096, but I'm not
>>sure now. It's been quite a few years since I did anything with that
>>print. Will post when I've got it up.
>
>Hmm that 2N3096 is just a little what, 500 mw max ?
>
>IIRC what I had had a single stud mounted MRF 315. 4 watts

>input, 40 something out on a 28 volt Vcc.

Don't recall now. Was thinking the 2N3906 would handle 1.5 W, but my books are at the office... and that may not have been the final anyway. I just don't remember. I do recall that heat dissipation, not max VCEO was the limiting factor on the power output and hence input voltage. Will post when I have it.

The nice thing about this little gadget is that it can be built on a board the same size as the 9v battery driving it making for a very compact unit and it'll still make a mile with a decent antenna. Actually, I've got plans for much smaller transmitters designed for use as "bugs" that aren't much larger than the 2032 button cells that drive them although the range is considerably less. I've never bothered to assemble one though. This sort of thing would be just an experimental toy to me as I have no real use for such.

2639. Re: 833A Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-19 04:57:25 UTC
From: hexter@blazenet.net
Message-ID: <10kq4dljv70gd90@corp.supernews.com>
Source record: 23073

In article <10kmh91lpb17v4c@corp.supernews.com>, rogerbrown@gci.net says...
>
>I have an 833A tube which I will use for a special project. I notice,
>however, that it seems to have very small flakes deposited inside the
>envelope. From what I surmise, they apparently jarred loose from the
>"getter." Has anyone run across this phenomena before - and more
>importantly, could I expect the tube to function OK with these deposits?
>
>Roger, KL7Q
>
I have seen gettter material 'fall off' the glass before. I would
say be careful not to get any of it lodged into the grid structure,
and all I can say is 'light it up' and throw on some plate current.
As long as the getter is not white in color which indicates a cracked
envelope, and as long as it doesn't glow blue like a mercury vapor
rectifier, you should be A-O.K. I have run these tubes with what
looked like the whole center of the getter flash missing. No problems!

2640. Re: Addendum to "Schematics for building a broad band frequency jammer"

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-19 04:59:54 UTC
From: Me <no-address_for_spammers@no-address.com>
Message-ID: <r84qk0hi8vr4k9p916rer1h0pkfascssqs@4ax.com>
Source record: 23074
Cross-posted to: sci.electronics.basics,sci.electronics.design,alt.radio.pirate,rec.radio.amateur.homebrew,alt.2600

On Sat, 18 Sep 2004 23:19:22 -0400, "Meat-->Plow"
<Meat@petitmorte.net> wrote:

>On Sat, 18 Sep 2004 23:07:07 -0400, Me
><no-address_for_spammers@no-address.com>,wrote:
>
>>On Sat, 18 Sep 2004 22:50:31 -0400, "Meat-->Plow"
>><Meat@petitmorte.net> wrote:
>>
>>>On Sat, 18 Sep 2004 22:18:06 -0400, Me
>>><no-address_for_spammers@no-address.com>,wrote:
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>>>>On Sat, 18 Sep 2004 21:29:26 -0400, "Meat-->Plow"
>>>><Meat@petitmorte.net> wrote:
>>>>
>>>>>On Sat, 18 Sep 2004 21:18:04 -0400, Me
>>>>><no-address_for_spammers@no-address.com>,wrote:
>>>>>
>>>>>>On Sun, 19 Sep 2004 00:23:04 GMT, dward7@earthlink.net (don ward)
>>>>>>wrote:
>>>>>>
>>>>>>> If you need schematics for a simple FM transmitter that's
>>>>>>very easy to build, yet very effective I can help you there. I've
>>>>>>built and used several on this design. In fact, there's a drag strip
>>>>>>in GA using a transmitter I built off of this schematic using it to
>>>>>>transmit race stats so people can listen in their cars and with head
>>>>>>sets so they can hear over the loud car exhaust. Also got the board
>>>>>>foil design and component layout making it super simple to build if
>>>>>>you want to go the professional route.
>>>>>>
>>>>>>How or where do i obtain the schematic and cb layout ??
>>>>>>dnw
>>>>>>dnelsonone@yahoo.com
>>>>>>
>>>>>>
>>>>>>Let me run to my office (where it happens to be), grab it and scan it
>>>>>>then I'll stick it on one of my web servers and post a URL.
>>>>>
>>>>>
>>>>>What's the power input to the final and what final amp ?
>>>>
>>>>9 vdc keeps it legal, but it'll take considerably more.
>>>>As far as the final... ugh... IIRC the final was a 2N3096, but I'm not

>>>>sure now. It's been quite a few years since I did anything with that
>>>>print. Will post when I've got it up.
>>>
>>>Hmm that 2N3096 is just a little what, 500 mw max ?
>>>
>>>IIRC what I had had a single stud mounted MRF 315. 4 watts
>>>input, 40 something out on a 28 volt Vcc.
>>
>>Don't recall now. Was thinking the 2N3906 would handle 1.5 W, but my
>>books are at the office... and that may not have been the final
>>anyway. I just don't remember. I do recall that heat dissipation, not
>>max VCEO was the limiting factor on the power output and hence input
>>voltage. Will post when I have it.
>>
>>The nice thing about this little gadget is that it can be built on a
>>board the same size as the 9v battery driving it making for a very
>>compact unit and it'll still make a mile with a decent antenna.
>>Actually, I've got plans for much smaller transmitters designed for
>>use as "bugs" that aren't much larger than the 2032 button cells that
>>drive them although the range is considerably less. I've never
>>bothered to assemble one though. This sort of thing would be just an
>>experimental toy to me as I have no real use for such.
>
>I've seen those things in -kit- form. Some with stereo
>output. 9 volts keeps the power under the legal limit but
>crank it up to 15 and it doubles. I set up one for a guy who
>had a drive-in restaurant. He had a 50's theme and wanted to
>broadcast 50's music for the drive in customers. Worked
>pretty decent once I found a spot that had no other local
>stations.

Ya, exactly the same thing I did for the drag strip. This wasn't a kit
though. I don't recall who did the circuit design or where I got it
from but it was just a schematic and description. I did the board foil
design for it on a computer several years ago and built a few.

2641. Re: That pesky 7238 kHz CW signal

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-19 07:36:04 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <EFa3d.53933$KU5.21134@edtnps89>
Source record: 23075

Here's the modern woodpecker :-)

http://www.raytheon.com/products/hfswr/

--
Gregg t3h g33k
"Ratings are for transistors....tubes have guidelines"
http://geek.scorpiorising.ca

2642. Spec for NDK TXCO

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-19 10:41:01 UTC
From: mike@corn2.freeserve.co.uk
Message-ID: <414d5f0e.146923818@news.freeserve.net>
Source record: 23076

I've just ripped a surface mount 12.8Mhz TCXO from a Sanyo CMP351E
phone.
Its manufactured by NDK, measures about 10mm by 8mm by 4mm, has four
connections and has the markings...

NDK
JPN.
4911
12.8
5111A-ANL50

Ok, I know its a 12.8Mhz oscillator and as it only has four
connections and a trimmer its likly to be a simple TCXO or maybe a
Voltage and TCXO. what I don't know is the pin-out and operating
voltage.

NDK's website has nothing like it that I can find and Google comes up
nada.
Can anyone help with either some solid info or a safe means of
"playing with it" without killing it.

Thanks, Mike W, G8NXD qthr

2643. Re: Spec for NDK TXCO

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-19 10:49:39 UTC
From: mike@corn2.freeserve.co.uk
Message-ID: <414d63da.148151984@news.freeserve.net>
Source record: 23077

Forget it... I just sat and looked at it properly :-(
Its an NDK 5111A and I've found the spec.. ;-)
my apologies for wasted bandwidth, 72/73 de Mike G8NXD
--

On Sun, 19 Sep 2004 10:41:01 GMT, mike@corn2.freeserve.co.uk (Mike W)
wrote:

>I've just ripped a surface mount 12.8Mhz TCXO from a Sanyo CMP351E
>phone.
>Its manufactured by NDK, measures about 10mm by 8mm by 4mm, has four
>connections and has the markings...
>
>NDK
>JPN.
>4911
>12.8
>5111A-ANL50
>
>Ok, I know its a 12.8Mhz oscillator and as it only has four
>connections and a trimmer its likly to be a simple TCXO or maybe a
>Voltage and TCXO. what I don't know is the pin-out and operating
>voltage.
>
>NDK's website has nothing like it that I can find and Google comes up
>nada.
>Can anyone help with either some solid info or a safe means of
>"playing with it" without killing it.
>
>Thanks, Mike W, G8NXD qthr

2644. Re: NEED: Schematics for building a broad band frequency jammer (FM 88M-108M)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-19 12:48:03 UTC
From: Gareth <me@privacy.net>
Message-ID: <2r5dfoF16ikakU1@uni-berlin.de>
Source record: 23078
Cross-posted to: sci.electronics.basics,sci.electronics.design,alt.radio.pirate,rec.radio.amateur.homebrew,alt.2600

Nina wrote:
> I would like to build a broad band frequency jammer for the FM
> broadcast band. I have neighbors that like to play that damn music too
> loud all day long. I figure if they turn it load and their station
> goes off the air for a while they might get the message. ;-) :-D
> If they keep the volume at a respectful level they will be allowed to
> listen to their music as they wish as long as I don't have to listen
> to it at uncomfortable levels.
> I know this is entirely illegal and don't care about it. This is war
> (!!!)and I plan on winning.
> If you have plans for something that would help me achieve my goal I
> would like to hear of it. My electronics skills are advanced (I've
> used to build and design "bugs" for many years, I own a good equipped
> lab, enough that I could build a project.
> I have some experience with rf broadcast circuits.
> The proximity of the offending radio's location to my house is quite
> near so I don't believe a transmitter with an overly large
> power...something between 3-5W
> will be enough...LOL....
> I'm "jamming" this neighbour with a 5W transmitter, but have to change
> the frequency MANUALLY as soon as he changes the station, so I cannot
> figure out how to do it automatically...
> I'll be VERY THANKFUL for your help and ideas :)
> TIA
> Nina
> nina.p20@gmail.com

Nina,

I'm not being funny here, but have you tried asking them politely to turn their music down? I used to have a similar problem with my neighbours, and I found polite requests surprisingly effective. It may be worth talking to other neighbours to see if they are also annoyed by the load music as, obviously, the more people on your side the more likely the noisy neighbours are to realise that they are in the wrong.

Another thing I would recommend is that you look up the appropriate local laws. For example, here it in England it is an offence to cause a "statutory noise nuisance", which is defined as any noise which causes "unreasonable disturbance to the use and enjoyment of one's property". Persistent offenders can be fined up to 5000 UKP (about $9000).

As others have said, deliberately jamming their radio could get you into serious trouble, maybe even a few months in jail.

Gareth.

--

To reply to me directly:

Replace privacy.net with: totalise DOT co DOT uk and replace me with gareth.harris

2645. Re: That pesky 7238 kHz CW signal

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-19 13:16:33 UTC
From: K7MEM <k7mem@myrealbox.com>
Message-ID: <cik0ri$ef63@cui1.lmms.lmco.com>
Source record: 23079

gudmundur wrote:
> In article <10kk32f996t8a85@corp.supernews.com>, w7el@eznec.com says...
>
>>I kind of chuckled at the thought of a handful of gnat-like hams chasing
>>out the 800 pound gorilla Woodpecker. It's reminiscent of the guy doing
>>the little dance. When asked why, he said, "to chase away the lions".
>>"But," came the response, "there aren't any lions within thousands of
>>miles." "See, it works, doesn't it?" said the dancing man.
>>
>>As Martin points out, the Woodpecker would sit at one frequency for a
>>while, then jump to another -- I heard it many times. But I hadn't
>>realized there were people out there congratulating themselves for
>>chasing it off when it did make one of its frequency jumps.
>>
>>Roy Lewallen, W7EL
>
> And any of these times that you listened, had you ever heard anyone
> intentionally messing with it?? Yes, it would sit a while then move
> to some other frequency. But it would sit much shorter if you screwed
> with it. Geez, there were even articles written on exactly the keying
> rate to chase it away. A kw and a beam on 40, and a keying rate of
> just about 10hz would chase it out almost instantly, and if it came
> back in short order, a second chase usually drove it off for the rest
> of the evening.
>
>>Martin Potter wrote:
>>
>>
>>>gudmundur (hexter@blazenet.net) writes:
>>>
>>>>I used to love to drive the woodpecker crazy. It was easy to chase it
>>>>out of the ham bands.
>>>
>>>The Woodpecker changed frequency all the time anyway, whether anyone tried
>>>to interfere with it or not. It was part of their operational plan. And
>>>the pulses carried a PSK coded pattern to make it easier to recover the
>>>returned echoes, sorting them out of the interference. I doubt very much
>>>that anyone could really interfere with them when they operated.
>>>
>>>... Martin VE3OAT

Personally, I don't place any stock in someone being able to chase away
the woodpecker. In the early 80s I operated from Reifenberg Germany as
DA2EU. I mostly worked 15 Meters CW. When the woodpecker came on line it

was like someone stuck a hot poker through your head phones. You felt like a cartoon character, with the headphones bouncing away from your head. The signal was so strong it completely swamped the receiver and it was being swept over the entire band. They may have been sweeping further, but that's all I was able to determine.

But each time it only lasted 3 or 4 minutes. When it went away the whole band was quiet, and then slowly came back to life. I doubt that anyone was able to do much to stop or deter it.

--
Martin - K7MEM
http://www.k7mem.150m.com

2646. Re: HF amplifier with PNP

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-19 15:59:49 UTC
From: Ken Scharf <wa2mzeNOTTHIS@bellsouth.net>
Message-ID: <B3i3d.81794$Np2.59845@bignews4.bellsouth.net>
Source record: 23080

PaoloC wrote:
> Hi,
> I feel a little lazy today, and Mr. Google didn't return anything useful
> to my searches.
>
> Can anyone point me to a circuit diagram of an HF amplifier that uses a
> PNP transistor instead of NPN?
>
> I know that they behave the opposite, but unfortunately I haven't been
> designing BJT amplifiers in the past years and I'm now a bit lost.
>
> I have some spare PNP power transistors with a decent GBW (or ft), and
> I'd like to see what happens if I use them as the PA stage of my
> homebrew CW transmitters.
>
> Thanks,
> Paolo IK1ZYW
PNP transistors were more common in the days when germanium was
the semicoductor material of choice, with silicon NPN is the more
common type. The material used just happens to 'work better' with
one polarity than the other. Even so, there are some good HF pnp
power transistors, but as you go higher in power and frequency
they become rarer and more expensive. For QRP hf the 2N2905/7
is a good PNP output transistor (1-5w), and you can use
2-4 in pp/p.

2647. Re: Addendum to "Schematics for building a broad band frequency jammer"

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-19 18:54:43 UTC
From: mzenier@eskimo.com
Message-ID: <cin0rvegm1@eskinews.eskimo.com>
Source record: 23101
Cross-posted to: sci.electronics.basics,sci.electronics.design,alt.radio.pirate,rec.radio.amateur.homebrew,alt.2600

In article <cdupk0pv24pfma6nsll9b9verigu74qvl9@4ax.com>,
Meat-->Plow <Meat@petitmorte.net> wrote:
>I've seen those things in -kit- form. Some with stereo
>output. 9 volts keeps the power under the legal limit but
>crank it up to 15 and it doubles. I set up one for a guy who
>had a drive-in restaurant. He had a 50's theme and wanted to
>broadcast 50's music for the drive in customers. Worked
>pretty decent once I found a spot that had no other local
>stations.

Legal on the FM band is about 30 nanowatts.

47 CFR 15.239 "shall not exceed 250 microvolts/meter at 3 meters".

Mark Zenier mzenier@eskimo.com Washington State resident

2648. Re: FedEx loses points with me

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-19 19:30:30 UTC
From: John Walton <jdwalton@comcast.net>
Message-ID: <HdudnZGL44bZQNDcRVn-sg@comcast.com>
Source record: 23081

If sending via USPS, UPS, FedEx -- you have to make sure that there are no stickers or barcodes on the package --

Don't forget that kicking and screaming sometimes work with FedEx -- but if you paid the "saver" rate option, they will delay the package until the last moment.

FWIW -- I almost always specify USPost Office "Prioirty Mail" -- If I get my Digikey orders in during the early afternoon they arrive from Minnesota the next day, and Saturday's aren't a problem.

"Bill Turner" <noway@nohow.com> wrote in message news:s0jqk0hc8t52eg6c9kkbb09beqhr3nukjb@4ax.com...
> I ordered a bunch of parts for a homebrew amp from Mouser on the 10th.
> FedEx picked them up in Fort Worth, Texas on the 10th, got them to Los
> Angeles on the 13th and they've been sitting there ever since. IF they
> are delivered tomorrow, the 20th, that will be seven days to go the 120
> miles from LA to my QTH. IF they are delivered tomorrow.
>
> UPS has problems too, but they've never been that slow for me.
>
> Sigh.
>
> --
> Bill W6WRT
>

2649. Re: FedEx loses points with me

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-19 22:17:23 UTC
From: John Moriarity <k6qq@hdo.net>
Message-ID: <10ks1a9kqbcgbf7@corp.supernews.com>
Source record: 23082

"Bill Turner" <noway@nohow.com> wrote in message
news:s0jqk0hc8t52eg6c9kkbb09beqhr3nukjb@4ax.com...
> I ordered a bunch of parts for a homebrew amp from Mouser on the 10th.
> FedEx picked them up in Fort Worth, Texas on the 10th, got them to Los
> Angeles on the 13th and they've been sitting there ever since. IF they
> are delivered tomorrow, the 20th, that will be seven days to go the 120
> miles from LA to my QTH. IF they are delivered tomorrow.

And on the other hand, I ordered a computer
case and power supply at about 3 P.M. last
Wednesday. It arrived about the same hour
on Friday. It's over 700 miles between City
of Industry (L.A.) and Alturas, CA. FedEx
Express Saver service has been good to me.

BTW, there were a lot of barcodes on the
box other than FedEx's. Didn't seem to
matter.

73, John - K6QQ

2650. Re: FedEx loses points with me

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-19 23:19:40 UTC
From: "G.Beat" <now9spamgb@no.comcast.spam.net.invalid>
Message-ID: <guo3d.220431$Fg5.22476@attbi_s53>
Source record: 23083

"Bill Turner" <noway@nohow.com> wrote in message
news:s0jqk0hc8t52eg6c9kkbb09beqhr3nukjb@4ax.com...
>I ordered a bunch of parts for a homebrew amp from Mouser on the 10th.
> FedEx picked them up in Fort Worth, Texas on the 10th, got them to Los
> Angeles on the 13th and they've been sitting there ever since. IF they
> are delivered tomorrow, the 20th, that will be seven days to go the 120
> miles from LA to my QTH. IF they are delivered tomorrow.
>
> UPS has problems too, but they've never been that slow for me.
>
> Sigh.
> --
> Bill W6WRT
>

Bill -

Unfortunately, it really depends which provider/logistics company (e.g., UPS, USPS, FedEx, DHL) service is best where you wish to ship - from point A to point B.

I have been disappointed with all carriers, but the FedEx Ground (Home Delivery) service in the Chicago area is probably the worst - they missed more Christmas deliveries and could not tell you where the package was - poor tracking system (different than regular FedEx) -- and shaky customer service .

gb

2651. Re: NEED: Schematics for building a broad band frequency jammer (FM 88M-108M)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-20 00:40:28 UTC
From: donnie <donnie@queyosepa.net>
Message-ID: <tl9sk0dgh4gscakl9lprsuo3lvk32qgoo4@4ax.com>
Source record: 23084
Cross-posted to: sci.electronics.basics,sci.electronics.design,alt.radio.pirate,rec.radio.amateur.homebrew,alt.2600

On 18 Sep 2004 04:55:52 -0700, nina.p20@gmail.com (Nina) wrote:

>I would like to build a broad band frequency jammer for the FM
>broadcast band. I have neighbors that like to play that damn music too
>loud all day long. I figure if they turn it load and their station
>goes off the air for a while they might get the message. ;-) :-D
> If they keep the volume at a respectful level they will be allowed to
>listen to their music as they wish as long as I don't have to listen
>to it at uncomfortable levels.
> I know this is entirely illegal and don't care about it. This is war
>(!!!)and I plan on winning.
> If you have plans for something that would help me achieve my goal I
>would like to hear of it. My electronics skills are advanced (I've
>used to build and design "bugs" for many years, I own a good equipped
>lab, enough that I could build a project.
>I have some experience with rf broadcast circuits.
>The proximity of the offending radio's location to my house is quite
>near so I don't believe a transmitter with an overly large
>power...something between 3-5W
>will be enough...LOL....
>I'm "jamming" this neighbour with a 5W transmitter, but have to change
>the frequency MANUALLY as soon as he changes the station, so I cannot
>figure out how to do it automatically...
>I'll be VERY THANKFUL for your help and ideas :)
>TIA
>Nina
>nina.p20@gmail.com
##############################
Duh, what happens if they switch to CDs?

2652. Re: FedEx loses points with me

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-20 00:41:10 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <MPG.1bb7c70298ec401f98971a@news-central.giganews.com>
Source record: 23085

In article <10ks1a9kqbcgbf7@corp.supernews.com>, k6qq@hdo.net says...
>
> And on the other hand, I ordered a computer
> case and power supply at about 3 P.M. last
> Wednesday. It arrived about the same hour
> on Friday. It's over 700 miles between City
> of Industry (L.A.) and Alturas, CA. FedEx
> Express Saver service has been good to me.
>
> BTW, there were a lot of barcodes on the
> box other than FedEx's. Didn't seem to
> matter.
>
> 73, John - K6QQ
>
>
>

I just sent a huge box (24x24x30 or so, about 70 pounds) via FedEx 3-day Express Saver from Seattle to Portland. It got there the next day for about $80. Can't complain about that! Actually paying for overnight deliver would have been in the $300 range.

I don't have much use for FedEx Ground, though. FedEx has done a terrible job integrating the ground service with the rest of their tracking and billing infrastructure. The impression I get is that FedEx's IT people are among the least competent in the shipping business. It's *very* rare that all of the features at fedex.com actually work at any given moment. And I've lost track of the number of "user IDs" I've had to create over the past few years due to their wholesale re-engineering of the site.

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

2653. Re: Addendum to "Schematics for building a broad band frequency jammer"

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-20 02:02:55 UTC
From: Steve Leyland <steveREMOVEDOTINVALIDTOREPLY@meow.org.invalid>
Message-ID: <cildgf$t8i$1@blackhelicopter.databasix.com>
Source record: 23086
Cross-posted to: sci.electronics.basics,sci.electronics.design,alt.radio.pirate,rec.radio.amateur.homebrew,alt.2600

```
: On Sat, 18 Sep 2004 12:31:40 -0400, Me
: <no-address_for_spammers@no-address.com>,wrote:
:
:: On Sat, 18 Sep 2004 12:07:02 -0400, "Meat-->Plow"
:: <Meat@petitmorte.net> wrote:
::
::: On Sat, 18 Sep 2004 10:57:11 -0400, Me
::: <no-address_for_spammers@no-address.com>,wrote:
:::
:::: On 18 Sep 2004 07:41:24 -0700, nina.p20@gmail.com (Nina) wrote:
::::
::::: I'd like to clarify something that I've missed:
::::: I'm ready to pay for your help if needed.
::::: TIA
::::: Nina
::::: nina.p20@gmail.com
::::
:::: I see no reason to try and jam the entire band. Just put together a
:::: simple FM transmitter and as someone earlier suggested, transmit a
:::: squeal or something equally irritating over whatever station
:::: they're listening to. As M->P suggested, that will be far easier
:::: to accomplish technically. If you need schematics for a simple FM
:::: transmitter that's very easy to build, yet very effective I can
:::: help you there. I've built and used several on this design. In
:::: fact, there's a drag strip in GA using a transmitter I built off
:::: of this schematic using it to transmit race stats so people can
:::: listen in their cars and with head sets so they can hear over the
:::: loud car exhaust. Also got the board foil design and component
:::: layout making it super simple to build if you want to go the
:::: professional route.
:::
::: I thought the person already had a transmitter
::
:: Oops... didn't read all the way down, now did I. :-)
:
: The person said the PO was 5 watts. That sounds like a home
: brew unit. I used to own a 50 watt exciter. It was
: responsible for generating the FM frequency, modulating it,
: and amplifying it to 50 watts where it was originally
: designed to feed a 5000 watt commercial transmitter. It made
: a pretty decent little pirate radio station. I built a
: J-pole antenna out of some wire and PVC tubing and I got
: about a 5 mile radius with full quieting. Called the station
```

: WEED, muhahwahahahah.

woah, now there's a coinkidence!
http://www.weedfm.tk
is a 70 watt pirate here I'm allegedly helping out with...

--
Steve Leyland
mhm32x16 Smeeter#24 WSD#41
flower: three 6 four 9 five 8 eight 9
Alcatroll Labs Inc (bongwater maintenance dept)
http://www.insurgent.org/~alcatroll/
http://www.weedfm.tk

=^MEOW MEOW ARMY^=

A pessimist counting his blessings: 10 ... 9 ... 8 ... 7 ...
==========
"Warning to all:
Steve Leyland is a trolling twat of the highest order. Killfile the
muppet now and move on. Even the briefest of searches on his past
UseNet posts will reveal the truth. You have been warned. *plonk*"

bear, uk.rec.motorcycles
==========
"This sig is an abomination of all that is good and right about usenet.
Do the entire world a favor and REMOVE YOURSELF FROM USENET ALTOGETHER,
DUMBASS."

miguel, soc.singles
==========
"must you include your 75847548574893579345 gigabyte sig file in every
fucking post? You're very annoying."

projectile vomit chick, alt.music.ozzy
==========
"I went to the Garden of Love,
And saw what I never had seen;
A Chapel was built in the midst,
Where I used to play on the green.

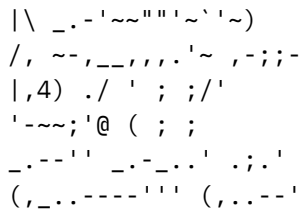
And the gates of this Chapel were shut
And "Thou shalt not," writ over the door;
So I turned to the Garden of Love
That so many sweet flowers bore.

And I saw it was filled with graves,
And tombstones where flowers should be;
And priests in black gowns were walking their rounds,
And binding with briars my joys and desires."

William Blake.
==========

"When the Earth has been ravaged and the animals are dying, a tribe of people from all races, creeds and colours shall put their faith in deeds, not words, and make the land green again. They shall be known as Warriors of the Rainbow, protectors of the environment."

Native American prophecy



Meow

2654. Re: FedEx loses points with me

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-20 02:52:02 UTC
From: don <don_not_the.don@nospam.com>
Message-ID: <414E45D0.FFB18D6B@nospam.com>
Source record: 23087

Perhaps the package is in the building or truck but can't be seen ?

Been using fedex ground for last year now, less expensive the ups
and packages get there on time, I'm in central nc so fedex hub right
here is town.
Kinkos now part of fed ex, so same great rates and more places
to drop it off.
I find the fedex hub faster and easier to use, they know their stuff.

agree with other poster that the fedex ground fedex home tracking is
slow to update. Had one buyer complain about his package,
turns out it was sitting on the front porch since 4 pm california time
but he kept using the fedex home tracking and 'on truck for delivery'
kept showing up ! lol.

don

Bill wrote:

> I ordered a bunch of parts for a homebrew amp from Mouser on the 10th.
> FedEx picked them up in Fort Worth, Texas on the 10th, got them to Los
> Angeles on the 13th and they've been sitting there ever since. IF they
> are delivered tomorrow, the 20th, that will be seven days to go the 120
> miles from LA to my QTH. IF they are delivered tomorrow.
>
> UPS has problems too, but they've never been that slow for me.
>
> Sigh.
>
> --
> Bill W6WRT

2655. Re: NEED: Schematics for building a broad band frequency jammer (FM 88M-108M)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-20 02:54:48 UTC
From: nina.p20@gmail.com
Message-ID: <992361df.0409191854.6d4c1d9f@posting.google.com>
Source record: 23088
Cross-posted to: sci.electronics.basics,sci.electronics.design,alt.radio.pirate,rec.radio.amateur.homebrew,alt.2600

Well...
Thanx all who tried to help me in any way :)
The whole "story" is:
The main problem is the guy I'm dealing with...He is a mentally ill
guy, that has been freed from a madhouse about 3 month ago. He lives
in his 14 room yard (yes, he sleeps there too) and has conflicts with
all authorities, including police. He's arrested from time to time for
violence against his wife or children or neighbours, but released
after a few hours, as he is - as I said - insane, and the authorities
are powerless against him. He is really ill, but not stupid. He lowers
the volume between 14:00-16:00 and from 00:00 up to 06:00. Lower, not
closing...
Our windows are about 10m from his yeard, so you can imagine...
I've considered all the suggestions some of the members gave, as
others have said, jamming his radio could get me into serious
troubles, and changed my "jammer" with a 50-100mW module...It has
about the same effect.

Gareth <me@privacy.net> wrote in message news:<2r5dfoF16ikakU1@uni-berlin.de>...
> Nina wrote:
> > I would like to build a broad band frequency jammer for the FM
> > broadcast band. I have neighbors that like to play that damn music too
> > loud all day long. I figure if they turn it load and their station
> > goes off the air for a while they might get the message. ;-) :-D
> > If they keep the volume at a respectful level they will be allowed to
> > listen to their music as they wish as long as I don't have to listen
> > to it at uncomfortable levels.
> > I know this is entirely illegal and don't care about it. This is war
> > (!!!)and I plan on winning.
> > If you have plans for something that would help me achieve my goal I
> > would like to hear of it. My electronics skills are advanced (I've
> > used to build and design "bugs" for many years, I own a good equipped
> > lab, enough that I could build a project.
> > I have some experience with rf broadcast circuits.
> > The proximity of the offending radio's location to my house is quite
> > near so I don't believe a transmitter with an overly large
> > power...something between 3-5W
> > will be enough...LOL....
> > I'm "jamming" this neighbour with a 5W transmitter, but have to change
> > the frequency MANUALLY as soon as he changes the station, so I cannot
> > figure out how to do it automatically...
> > I'll be VERY THANKFUL for your help and ideas :)

> > TIA
> > Nina
> > nina.p20@gmail.com
>
> Nina,
>
> I'm not being funny here, but have you tried asking them politely to
> turn their music down? I used to have a similar problem with my
> neighbours, and I found polite requests surprisingly effective. It may
> be worth talking to other neighbours to see if they are also annoyed by
> the load music as, obviously, the more people on your side the more
> likely the noisy neighbours are to realise that they are in the wrong.
>
> Another thing I would recommend is that you look up the appropriate
> local laws. For example, here it in England it is an offence to cause a
> "statutory noise nuisance", which is defined as any noise which causes
> "unreasonable disturbance to the use and enjoyment of one's property".
> Persistent offenders can be fined up to 5000 UKP (about $9000).
>
> As others have said, deliberately jamming their radio could get you into
> serious trouble, maybe even a few months in jail.
>
> Gareth.

2656. Re: NEED: Schematics for building a broad band frequency jammer (FM 88M-108M)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-20 04:17:33 UTC
From: Clarence <No@No.Com>
Message-ID: <wRs3d.21563$r37.10189@newssvr27.news.prodigy.com>
Source record: 23089
Cross-posted to: sci.electronics.basics,sci.electronics.design,alt.radio.pirate,rec.radio.amateur.homebrew,alt.2600

"Nina" <nina.p20@gmail.com> wrote in message
news:992361df.0409191854.6d4c1d9f@posting.google.com...
> Well...
> Thanx all who tried to help me in any way :)
> The whole "story" is:
> The main problem is the guy I'm dealing with...He is a mentally ill
> guy, that has been freed from a madhouse about 3 month ago. He lives
> in his 14 room yard (yes, he sleeps there too) and has conflicts with
> all authorities, including police. He's arrested from time to time for
> violence against his wife or children or neighbours, but released
> after a few hours, as he is - as I said - insane, and the authorities
> are powerless against him. He is really ill, but not stupid. He lowers
> the volume between 14:00-16:00 and from 00:00 up to 06:00. Lower, not
> closing...
> Our windows are about 10m from his yeard, so you can imagine...
> I've considered all the suggestions some of the members gave, as
> others have said, jamming his radio could get me into serious
> troubles, and changed my "jammer" with a 50-100mW module...It has
> about the same effect.

SO, you thing your okay?

2657. Re: NEED: Schematics for building a broad band frequency jammer (FM 88M-108M)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-20 04:52:06 UTC
From: filesiteguy <abuse@127.0.0.1>
Message-ID: <4cosk05pn15vfve9i0lualn6i2kln102ii@4ax.com>
Source record: 23090
Cross-posted to: sci.electronics.basics,sci.electronics.design,alt.radio.pirate,rec.radio.amateur.homebrew,alt.2600

On 19 Sep 2004 19:54:48 -0700, nina.p20@gmail.com (Nina) graced us
with:

>Well...
>Thanx all who tried to help me in any way :)
>The whole "story" is:
> The main problem is the guy I'm dealing with...He is a mentally ill
>guy, that has been freed from a madhouse about 3 month ago. He lives
>in his 14 room yard (yes, he sleeps there too) and has conflicts with

So, it is very simple. Figure out what station he's listening to,
setup a transmitter on that same frequency (this isn't hard), adjust
the power, so it goes for at least 100M, and broadcast intermittent
messages.

Tell him things like, "you need to go to sleeeeep...." Or maybe,
"they're coming! quick, shutoff the radio!"

HTH

--
k

2658. Re: NEED: Schematics for building a broad band frequency jammer (FM 88M-108M)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-20 06:59:24 UTC
From: unoriginal_username@yahoo.com
Message-ID: <fc2e0ade.0409192259.568e618d@posting.google.com>
Source record: 23091
Cross-posted to: sci.electronics.basics,sci.electronics.design,alt.radio.pirate,rec.radio.amateur.homebrew,alt.2600

nina.p20@gmail.com (Nina) wrote in message
news:<992361df.0409180355.582965c7@posting.google.com>...
> If you have plans for something that would help me achieve my goal I
> would like to hear of it. My electronics skills are advanced (I've
> used to build and design "bugs" for many years, I own a good equipped
> lab, enough that I could build a project.
> I have some experience with rf broadcast circuits.
> The proximity of the offending radio's location to my house is quite
> near so I don't believe a transmitter with an overly large
> power...something between 3-5W
> will be enough...LOL....

Not to recommend that you break FCC rules, but you probably would get minimum hassle using VCO. Note that 3-5W might get a few people you don't want to get. :)

Get high-speed VCO that can cover your range, then drive the input with another oscillator that causes the VCO to step sweep over FM band. Or, instead, you can drive VCO with D/A whose input is PRNG.

But if you really want to get clever, get digital FM receiver chipset, VCO, etc, and make a circuit that allows you to force your neighbor to listen to the station you want him to listen to, by taking the output from the tuner and regenerating it in a spread-spectrum fashion, pausing at each allocated band just long enough to make your station detectable. Of you use mic or line-out of computer with "disturbing sounds on hard disk" to be replayed....

Or you could just knock on door and use oldest analog device known to man - the mouth.

-Chaud Lapin-

2659. Re: NEED: Schematics for building a broad band frequency jammer (FM 88M-108M)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-20 12:29:24 UTC
From: nina.p20@gmail.com
Message-ID: <992361df.0409200429.60887730@posting.google.com>
Source record: 23092
Cross-posted to: sci.electronics.basics,sci.electronics.design,alt.radio.pirate,rec.radio.amateur.homebrew,alt.2600

No, maybe it's not ok, but it may be very effective :)
(No offence ... I know that those are serious NGs, with serious
members, with lot of ethics and high morality... I feel like I'm
dealing with "alt.saints.xxx)

"Clarence" <No@No.Com> wrote in message
news:<wRs3d.21563$r37.10189@newssvr27.news.prodigy.com>...
> "Nina" <nina.p20@gmail.com> wrote in message
> news:992361df.0409191854.6d4c1d9f@posting.google.com...
> > Well...
> > Thanx all who tried to help me in any way :)
> > The whole "story" is:
> > The main problem is the guy I'm dealing with...He is a mentally ill
> > guy, that has been freed from a madhouse about 3 month ago. He lives
> > in his 14 room yard (yes, he sleeps there too) and has conflicts with
> > all authorities, including police. He's arrested from time to time for
> > violence against his wife or children or neighbours, but released
> > after a few hours, as he is - as I said - insane, and the authorities
> > are powerless against him. He is really ill, but not stupid. He lowers
> > the volume between 14:00-16:00 and from 00:00 up to 06:00. Lower, not
> > closing...
> > Our windows are about 10m from his yeard, so you can imagine...
> > I've considered all the suggestions some of the members gave, as
> > others have said, jamming his radio could get me into serious
> > troubles, and changed my "jammer" with a 50-100mW module...It has
> > about the same effect.
>
> SO, you thing your okay?

2660. Re: NEED: Schematics for building a broad band frequency jammer (FM 88M-108M)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-20 12:42:57 UTC
From: nina.p20@gmail.com
Message-ID: <992361df.0409200442.60d90a42@posting.google.com>
Source record: 23093
Cross-posted to: sci.electronics.basics,sci.electronics.design,alt.radio.pirate,rec.radio.amateur.homebrew,alt.2600

Thanx for the ideas, I'll try that right away :)

The second part, the analog "device" .... I've tried it several times
before, you can believe me that it's easier for me to ask him...if
only he has been a normal person...but he is - as mentioned before -
insane, mad. He never even answered to my request, and believe me,
I've been as polite as I could. Never tried to argue with him, or
trying to offend him. Just asked him to lower the receiver's volume so
we can rest for a while.
Now I have to close all my windows and use air condition 24/24...
Nina

unoriginal_username@yahoo.com (Le Chaud Lapin) wrote in message
news:<fc2e0ade.0409192259.568e618d@posting.google.com>...
> nina.p20@gmail.com (Nina) wrote in message
news:<992361df.0409180355.582965c7@posting.google.com>...
> > If you have plans for something that would help me achieve my goal I
> > would like to hear of it. My electronics skills are advanced (I've
> > used to build and design "bugs" for many years, I own a good equipped
> > lab, enough that I could build a project.
> > I have some experience with rf broadcast circuits.
> > The proximity of the offending radio's location to my house is quite
> > near so I don't believe a transmitter with an overly large
> > power...something between 3-5W
> > will be enough...LOL....
>
> Not to recommend that you break FCC rules, but you probably would get
> minimum hassle using VCO. Note that 3-5W might get a few people you
> don't want to get. :)
>
> Get high-speed VCO that can cover your range, then drive the input
> with another oscillator that causes the VCO to step sweep over FM
> band. Or, instead, you can drive VCO with D/A whose input is PRNG.
>
> But if you really want to get clever, get digital FM receiver chipset,
> VCO, etc, and make a circuit that allows you to force your neighbor to
> listen to the station you want him to listen to, by taking the output
> from the tuner and regenerating it in a spread-spectrum fashion,
> pausing at each allocated band just long enough to make your station
> detectable. Of you use mic or line-out of computer with "disturbing
> sounds on hard disk" to be replayed....
>
> Or you could just knock on door and use oldest analog device known to

> man - the mouth.
>
> -Chaud Lapin-

2661. Re: NEED: Schematics for building a broad band frequency jammer (FM 88M-108M)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-20 13:14:49 UTC
From: nina.p20@gmail.com
Message-ID: <992361df.0409200514.75619edb@posting.google.com>
Source record: 23094
Cross-posted to: sci.electronics.basics,sci.electronics.design,alt.radio.pirate,rec.radio.amateur.homebrew,alt.2600

nina.p20@gmail.com (Nina) wrote in message
news:<992361df.0409180355.582965c7@posting.google.com>...
> I would like to build a broad band frequency jammer for the FM
> broadcast band. I have neighbors that like to play that damn music too
> loud all day long. I figure if they turn it load and their station
> goes off the air for a while they might get the message. ;-) :-D
> If they keep the volume at a respectful level they will be allowed to
> listen to their music as they wish as long as I don't have to listen
> to it at uncomfortable levels.
> I know this is entirely illegal and don't care about it. This is war
> (!!!)and I plan on winning.
> If you have plans for something that would help me achieve my goal I
> would like to hear of it. My electronics skills are advanced (I've
> used to build and design "bugs" for many years, I own a good equipped
> lab, enough that I could build a project.
> I have some experience with rf broadcast circuits.
> The proximity of the offending radio's location to my house is quite
> near so I don't believe a transmitter with an overly large
> power...something between 3-5W
> will be enough...LOL....
> I'm "jamming" this neighbour with a 5W transmitter, but have to change
> the frequency MANUALLY as soon as he changes the station, so I cannot
> figure out how to do it automatically...
> I'll be VERY THANKFUL for your help and ideas :)
> TIA
> Nina
> nina.p20@gmail.com

Wow people !!!
I'm feeling now as a killer !!! I'm breaking the laws !!! I'm not a
honest person !!! I'll go to HELL !!!
The police is near to my door with sophisticated devices - just to
catch a criminal...Ben Laden is a kid for me... what else ??????????
I've just asked for a simple idea or schematic - and I've been so
blamed I'm afraid to look in the mirror...
When I asked your help I did it AFTER trying all other options you
wrote, AFTER being polite, AFTER the involvement of the law...
Maybe my reqest sounds stupid or maybe I AM STUPID, but I'd like to
see any of you my friends in my situation, without resting time even
in holidays, withot any help. After suffering all day long without a
posibility to open a window in the house...I'm almost sure that if
anyone of you would be bothered day and night by a lunatic, without

any chance to get help from anyone, even from legal authorities -
you'll loose the "polite" word from your lexicon...
What I know is I won't sale my house, and I'll fight back.
Even it's not legal...

2662. Re: NEED: Schematics for building a broad band frequency jammer (FM 88M-108M)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-20 13:50:00 UTC
From: John Miller <me@privacy.net>
Message-ID: <cimmpa$l4s$1@n4vu2.n4vu.com>
Source record: 23095
Cross-posted to: sci.electronics.basics,sci.electronics.design,alt.radio.pirate,rec.radio.amateur.homebrew,alt.2600

Nina wrote:
> Wow people !!!
> I'm feeling now as a killer !!! I'm breaking the laws !!! I'm not a
> honest person !!! I'll go to HELL !!!
> The police is near to my door with sophisticated devices - just to
> catch a criminal...Ben Laden is a kid for me... what else ??????????
> I've just asked for a simple idea or schematic - and I've been so
> blamed I'm afraid to look in the mirror...
> When I asked your help I did it AFTER trying all other options you
> wrote, AFTER being polite, AFTER the involvement of the law...
> Maybe my reqest sounds stupid or maybe I AM STUPID, but I'd like to
> see any of you my friends in my situation, without resting time even
> in holidays, withot any help. After suffering all day long without a
> posibility to open a window in the house...I'm almost sure that if
> anyone of you would be bothered day and night by a lunatic, without
> any chance to get help from anyone, even from legal authorities -
> you'll loose the "polite" word from your lexicon...
> What I know is I won't sale my house, and I'll fight back.
> Even it's not legal...

Sometimes what we ask for isn't what we really want.

Your real objective is not to build a transmitter, but rather, to stop
the noise, am I right?

Seems to me that if you were given two options, one of which could lead
to a hefty fine and possible prison time, and another that wouldn't,
you'd surely prefer the safe option. But maybe not.

--
John Miller
email address: domain, n4vu.com; username, jsm
Surplus (FSoT):
New Conn V1 double trumpet case, no logo
Tektronix 465B oscilloscope

2663. Re: NEED: Schematics for building a broad band frequency jammer (FM 88M-108M)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-20 14:00:10 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <n3otk010agvfnn4f1h7cbmscjc19iajcob@4ax.com>
Source record: 23096
Cross-posted to: sci.electronics.basics,sci.electronics.design,alt.radio.pirate,rec.radio.amateur.homebrew,alt.2600

On 20 Sep 2004 05:42:57 -0700, nina.p20@gmail.com (Nina) wrote:

>Thanx for the ideas, I'll try that right away :)
>
>
>The second part, the analog "device" .... I've tried it several times
>before, you can believe me that it's easier for me to ask him...if
>only he has been a normal person...but he is - as mentioned before -
>insane, mad. He never even answered to my request, and believe me,
>I've been as polite as I could. Never tried to argue with him, or
>trying to offend him. Just asked him to lower the receiver's volume so
>we can rest for a while.

If you do succeed in building a suitable device, you must be sure he never able to establish that you're behind it. These kind of people often experience persecution mania at the best of times. You don't want to be an obvious identifiable target for all those years of suffering he believes he experienced through being persecuted by others and have him believe that you're in league with the 'dark forces' that have made his life a misery.
--

"What is now proved was once only imagin'd." - William Blake, 1793.

2664. Re: NEED: Schematics for building a broad band frequency jammer (FM 88M-108M)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-20 14:34:34 UTC
From: John Woodgate <jmw@jmwa.demon.contraspam.yuk>
Message-ID: <DdIFxxG6puTBFwn3@jmwa.demon.co.uk>
Source record: 23097
Cross-posted to: sci.electronics.basics,sci.electronics.design,alt.radio.pirate,rec.radio.amateur.homebrew,alt.2600

I read in sci.electronics.design that Nina <nina.p20@gmail.com> wrote
(in <992361df.0409200429.60887730@posting.google.com>) about 'NEED:
Schematics for building a broad band frequency jammer (FM 88M-108M)',
on Mon, 20 Sep 2004:

>I feel like I'm dealing with
>"alt.saints.xxx)

It's more like rec.saintsandsinnersandverylittleelectronics!
--
Regards, John Woodgate, OOO - Own Opinions Only.
The good news is that nothing is compulsory.
The bad news is that everything is prohibited.
http://www.jmwa.demon.co.uk Also see http://www.isce.org.uk

2665. Re: FedEx loses points with me

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-20 15:30:18 UTC
From: John Walton <jdwalton@comcast.net>
Message-ID: <BOidndpdGKjra9PcRVn-oA@comcast.com>
Source record: 23098

FedEx Ground can be disappointing -- I agree -- but I've sold a lot of bulky stuff on EBay and warn the purchaser that they should expect delivery in "at best" a week. Nothing has gotten lost for me via FedEx Ground.

"John Miles" <jmiles@pop.removethistomailme.net> wrote in message news:MPG.1bb7c70298ec401f98971a@news-central.giganews.com...
> In article <10ks1a9kqbcgbf7@corp.supernews.com>, k6qq@hdo.net says...
> >
> > And on the other hand, I ordered a computer
> > case and power supply at about 3 P.M. last
> > Wednesday. It arrived about the same hour
> > on Friday. It's over 700 miles between City
> > of Industry (L.A.) and Alturas, CA. FedEx
> > Express Saver service has been good to me.
> >
> > BTW, there were a lot of barcodes on the
> > box other than FedEx's. Didn't seem to
> > matter.
> >
> > 73, John - K6QQ
> >
> >
> >
>
> I just sent a huge box (24x24x30 or so, about 70 pounds) via FedEx 3-day
> Express Saver from Seattle to Portland. It got there the next day for
> about $80. Can't complain about that! Actually paying for overnight
> deliver would have been in the $300 range.
>
> I don't have much use for FedEx Ground, though. FedEx has done a
> terrible job integrating the ground service with the rest of their
> tracking and billing infrastructure. The impression I get is that
> FedEx's IT people are among the least competent in the shipping
> business. It's *very* rare that all of the features at fedex.com
> actually work at any given moment. And I've lost track of the number of
> "user IDs" I've had to create over the past few years due to their
> wholesale re-engineering of the site.
>
> -- jm
>
> --
> http://www.qsl.net/ke5fx
> Note: My E-mail address has been altered to avoid spam
> --

2666. Not homebrew -- but can u recommend a rig for Peace Corps volunteer

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-20 15:32:14 UTC
From: John Walton <jdwalton@comcast.net>
Message-ID: <P8-dnTT0EdB6a9PcRVn-vw@comcast.com>
Source record: 23099

conditions are probably going to be hot, dusty, humid, full of critters --
and battery operation essential --

2667. Re: FedEx loses points with me

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-20 16:26:32 UTC
From: dplatt@radagast.org
Message-ID: <10ku15oipc1018e@corp.supernews.com>
Source record: 23100

In article <BOidndpdGKjra9PcRVn-oA@comcast.com>,
John Walton <jdwalton@comcast.net> wrote:

>FedEx Ground can be disappointing -- I agree -- but I've sold a lot of bulky
>stuff on EBay and warn the purchaser that they should expect delivery in "at
>best" a week. Nothing has gotten lost for me via FedEx Ground.

I've come to prefer FedEx Ground over the corresponding UPS service
for one significant reason: damage. Both in my own experience, and
that of the shipping/receiving guy at the company I work for, the odds
of a decently-packaged device being damaged in shipment are
significantly higher if it's sent by UPS.

FedEx seems to be somewhat more gentle with the packages, and (if I'm
shipping and do so via my employer's system) it's less expensive.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

2668. Re: NEED: Schematics for building a broad band frequency jammer (FM 88M-108M)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-20 17:10:54 UTC
From: AntronX <discountscreenco@earthlink.net>
Message-ID: <yaE3d.7596$mb6.7203@newsread3.news.atl.earthlink.net>
Source record: 23102
Cross-posted to: sci.electronics.basics,sci.electronics.design,alt.radio.pirate,rec.radio.amateur.homebrew,alt.2600

Here some options I would recommend:
1: Find an old grandpa with a HAM radio setup and old high power HF amplifier. Pull a wire across your yard (dipole) and hook it up to the antenna tuner and the amp. Then let the old man ragchew with his buddies on the air while he is overdriving the hell out the amp. This will produce very high rf and interference, will get picked up in this stereo speaker wires and will make the loudest noize possible. The best part this is LEGAL and it will jam his radio alltogether making it unusable even listening to a CD... :) If someone shows up complaining about the interference, you say that we got the amateur radio licence (that's why you need the grandpa) and thell them to get the hell out!!! Then there is nothing that FCC can do either...

2: Wait before he turns the volume up as high as possible and then take your transmitter and feed it with very high level of 30-60 Hz sine wave. This will most likely blow his low frequency speakers out leaving him with no stereo to listen to...

PS: Don't take all the blames from these fuckin "legal" people to personal. Just think that they have no life...

Have Fun...
AntronX

2669. Re: Addendum to "Schematics for building a broad band frequency jammer"

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-20 17:16:29 UTC
From: AntronX <discountscreenco@earthlink.net>
Message-ID: <NfE3d.7599$mb6.6279@newsread3.news.atl.earthlink.net>
Source record: 23103
Cross-posted to: sci.electronics.basics,sci.electronics.design,alt.radio.pirate,rec.radio.amateur.homebrew,alt.2600

Here some options I would recommend:
1: Find an old grandpa with a HAM radio setup and old high power HF amplifier. Pull a wire across your yard (dipole) and hook it up to the antenna tuner and the amp. Then let the old man ragchew with his buddies on the air while he is overdriving the hell out the amp. This will produce very high rf and interference, will get picked up in this stereo speaker wires and will make the loudest noize possible. The best part this is LEGAL and it will jam his radio alltogether making it unusable even listening to a CD... :) If someone shows up complaining about the interference, you say that we got the amateur radio licence (that's why you need the grandpa) and thell them to get the hell out!!! Then there is nothing that FCC can do either...

2: Wait till he turns the volume the loudest and take your transmitter and feed it with very high level of 30-60 Hz sine wave. This will blow his speakers out, leaving him with no stereo to listen to... :) :) :)

PS: Don't take the blames of these fuckin "legal" people to personal. Just think that they have no life...

Have Fun!!!
AntronX

2670. Re: Repairing Kenwood TS-820 (PA)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-20 17:23:48 UTC
From: RobO <noone@home.tonite>
Message-ID: <cin3pq$dq6$1@newsg2.svr.pol.co.uk>
Source record: 23104

Hello Jan-Martin
I hope this may help?
http://www.mods.dk/view.php?ArticleId=781
73
Bob
G1ZJP

2671. Re: NEED: Schematics for building a broad band frequency jammer (FM 88M-108M)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-20 17:29:39 UTC
From: Dirk Bruere at Neopax <dirk@neopax.com>
Message-ID: <2r8ic4F16mqpuU1@uni-berlin.de>
Source record: 23105
Cross-posted to: sci.electronics.basics,sci.electronics.design,alt.radio.pirate,rec.radio.amateur.homebrew,alt.2600

filesiteguy wrote:
> On 19 Sep 2004 19:54:48 -0700, nina.p20@gmail.com (Nina) graced us
> with:
>
>
>>Well...
>>Thanx all who tried to help me in any way :)
>>The whole "story" is:
>>The main problem is the guy I'm dealing with...He is a mentally ill
>>guy, that has been freed from a madhouse about 3 month ago. He lives
>>in his 14 room yard (yes, he sleeps there too) and has conflicts with
>
>
> So, it is very simple. Figure out what station he's listening to,
> setup a transmitter on that same frequency (this isn't hard), adjust
> the power, so it goes for at least 100M, and broadcast intermittent
> messages.
>
> Tell him things like, "you need to go to sleeeeep...." Or maybe,
> "they're coming! quick, shutoff the radio!"

Or maybe - "Kill your family now - Satan commands it!"
Alternatively, play some music back in his direction.
Possibly with some near ultrasonics added.

--
Dirk

The Consensus:-
The political party for the new millenium
http://www.theconsensus.org

2672. Re: FedEx loses points with me

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-20 17:47:40 UTC
From: Allodoxaphobia <bit-bucket@config.com>
Message-ID: <slrncku5ts.13iu.bit-bucket@shell.config.com>
Source record: 23106

[Odious Top Posting corrected]

On Mon, 20 Sep 2004 02:52:02 GMT, don hath writ:
> Bill wrote:
>
>> I ordered a bunch of parts for a homebrew amp from Mouser on the 10th.
>> FedEx picked them up in Fort Worth, Texas on the 10th, got them to Los
>> Angeles on the 13th and they've been sitting there ever since. IF they
>> are delivered tomorrow, the 20th, that will be seven days to go the 120
>> miles from LA to my QTH. IF they are delivered tomorrow.
>>
>> UPS has problems too, but they've never been that slow for me.

> Perhaps the package is in the building or truck but can't be seen ?
>
> Been using fedex ground for last year now, less expensive the ups
> and packages get there on time, I'm in central nc so fedex hub right
> here is town.
> Kinkos now part of fed ex, so same great rates and more places
> to drop it off.
> I find the fedex hub faster and easier to use, they know their stuff.
>
> agree with other poster that the fedex ground fedex home tracking is
> slow to update. Had one buyer complain about his package,
> turns out it was sitting on the front porch since 4 pm california time
> but he kept using the fedex home tracking and 'on truck for delivery'
> kept showing up ! lol.

Also, it could be your browser cache. Hit [Reload].
I had a similar problem with (IIRC) UPS out of Washington state.
My package "sat" in Salt Lake City for a day or two. Ultimately
it was on my porch whilst my browser said "Salt Lake City".
doooh! I did a [Reload] and then saw all the routing updates
past Salt Lake City: depart SLC, arrive/depart Grand Junction,
arrive/out_for_delivery Gunnison.

It's the web designer's fault in such a case. The page should be
tagged as non-cache'able -- yielding a fresh load on each view.
I remember emailing webmaster@ for that instance, and I remember
getting back a non-specific/non-commital reply.

Now that I'm on DSL, I cache Very Little in my browsers. HI!HI!

73
Jonesy
--

```
| Marvin L Jones | jonz | W3DHJ | linux
| Gunnison, Colorado | @ | Jonesy | OS/2 __
| 7,703' -- 2,345m | config.com | DM68mn SK
```

2673. Pre amps

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-20 18:00:44 UTC
From: dave.harper@gmail.com
Message-ID: <364fd697.0409201000.35932404@posting.google.com>
Source record: 23107

I'm still new in regards to radio, but had a couple questions
regarding equipment. I've seen some info about pre-amps, and was
wondering if this is just a low-power transmitter that "should" have
an amp between it and the antenna. Is the preamp basically everything
before the power amplifier? If not, where am I mistaken?

Thanks in advance!
Dave

2674. Re: NEED: Schematics for building a broad band frequency jammer (FM 88M-108M)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-20 19:10:32 UTC
From: nina.p20@gmail.com
Message-ID: <992361df.0409201110.78d976e7@posting.google.com>
Source record: 23108
Cross-posted to: sci.electronics.basics,sci.electronics.design,alt.radio.pirate,rec.radio.amateur.homebrew,alt.2600

John Miller <me@privacy.net> wrote in message news:<cimmpa$l4s$1@n4vu2.n4vu.com>...
> Nina wrote:
> > Wow people !!!
> > I'm feeling now as a killer !!! I'm breaking the laws !!! I'm not a
> > honest person !!! I'll go to HELL !!!
> > The police is near to my door with sophisticated devices - just to
> > catch a criminal...Ben Laden is a kid for me... what else ??????????
> > I've just asked for a simple idea or schematic - and I've been so
> > blamed I'm afraid to look in the mirror...
> > When I asked your help I did it AFTER trying all other options you
> > wrote, AFTER being polite, AFTER the involvement of the law...
> > Maybe my reqest sounds stupid or maybe I AM STUPID, but I'd like to
> > see any of you my friends in my situation, without resting time even
> > in holidays, withot any help. After suffering all day long without a
> > posibility to open a window in the house...I'm almost sure that if
> > anyone of you would be bothered day and night by a lunatic, without
> > any chance to get help from anyone, even from legal authorities -
> > you'll loose the "polite" word from your lexicon...
> > What I know is I won't sale my house, and I'll fight back.
> > Even it's not legal...
>
> Sometimes what we ask for isn't what we really want.
>
> Your real objective is not to build a transmitter, but rather, to stop
> the noise, am I right?
>
> Seems to me that if you were given two options, one of which could lead
> to a hefty fine and possible prison time, and another that wouldn't,
> you'd surely prefer the safe option. But maybe not.

Right, my real objective is not to build a transmitter, but rather, to
stop
the noise, you are right. So, I have 2 options: to continue hearing
the noise all day long, to be a prisoner in my own house (I wonder if
in prison the prisoners have to close their windows in their
cells...), or to go to a real prison to find it out....
It seems to me it's the same option, just changing the name.

Meantime, as I wrote, I'm using from time to time a mini-bug, very
effective...

2675. Re: Pre amps

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-20 19:13:29 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10kuaur72uv7g16@corp.supernews.com>
Source record: 23109

The term "preamp" (short for preamplifier) is used to describe an amplifier put at the input to a receiver. It's not used for transmitting.

When used with a modern receiver, they often do more harm than good, by generating spurious signals while not improving the signal to noise ratio. One of the few places where they are useful is when mounted at the antenna in a VHF or UHF system when there's significant loss in the feedline between the antenna and receiver.

Roy Lewallen, W7EL

David Harper wrote:
> I'm still new in regards to radio, but had a couple questions
> regarding equipment. I've seen some info about pre-amps, and was
> wondering if this is just a low-power transmitter that "should" have
> an amp between it and the antenna. Is the preamp basically everything
> before the power amplifier? If not, where am I mistaken?
>
> Thanks in advance!
> Dave

2676. Re: Pre amps

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-20 19:39:11 UTC
From: Allodoxaphobia <bit-bucket@config.com>
Message-ID: <slrnckucev.1gth.bit-bucket@shell.config.com>
Source record: 23110

On 20 Sep 2004 11:00:44 -0700, David Harper hath writ:
> I'm still new in regards to radio, but had a couple questions
> regarding equipment. I've seen some info about pre-amps, and was
> wondering if this is just a low-power transmitter that "should" have
> an amp between it and the antenna. Is the preamp basically everything
> before the power amplifier? If not, where am I mistaken?
>
> Thanks in advance!
> Dave

There are preamps, and there are preamps.
In general, a preamp is used to amplify a Very Low Level signal
up to "general, utility" levels.

E.g.: A mic preamp is used to amplify the Very Low Level signal
of a microphone up to a level where the audio circuits can
better modify and/or filter it. Or, a rcvr preamp is used at the
front of a receiver's antenna input to get the rf input up to a level
where the signal(s) can better be mixed, filtered, or modified.
There are many considerations in the design of a preamp -- but
foremost, maybe, is the design for low noise due to the fact
that these signals do not stand very tall over whatever noise
exist in the system.

Preamps may be external or internal. I.e., a mic preamp could
be found in the base of the microphone, on the cable, or in the
device (transmitter, P.A., etc.) to which the mic is connected.
Same-o for a rcvr preamp: It could be mounted up at the antenna,
somewhere in-line in the transmission line, or inside the receiver.

HTH es 73
Jonesy
--
| Marvin L Jones | jonz | W3DHJ | linux
| Gunnison, Colorado | @ | Jonesy | OS/2 __
| 7,703' -- 2,345m | config.com | DM68mn SK

2677. Re: Pre amps

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-20 20:38:09 UTC
From: xpyttl <xpyttl_NOSPAM@earthling.net>
Message-ID: <10kuftemmaokndf@corp.supernews.com>
Source record: 23111

"David Harper" <dave.harper@gmail.com> wrote in message
news:364fd697.0409201000.35932404@posting.google.com...

> an amp between it and the antenna. Is the preamp basically everything
> before the power amplifier? If not, where am I mistaken?

Dave,

Both Roy and Jonesy are right. As Jonesy says, there are all sorts of preamps. But generally, in a radio context, with no other qualifiers, we are talking about recieve preamps, which Roy assumed.

Roy (who by the way happens to be one of the giants in this business) mentioned that a receive preamp is rarely a good thing. It's easy to get talked out of believing this without some explanation.

What happens is this. There is atmospheric noise. This noise decreases with increasing frequency. If a signal is below the noise, it's below the noise. No amount of amplification is going to help, because you will amplify the noise just as much as the signal. Now, gain is easy to come by at low frequencies, but it gets harder to get at higher frequencies. At HF (typically we mean below 30 MHz), even the cheapest receiver has enough gain to hear the atmospheric noise, and won't be helped with a preamp.

You can run a simple test. Unplug your antenna and turn the volume up until you hear the whooshing sound. (FM doesn't count here - only CW or SSB - FM is a slightly different problem). Now, plug the antenna in. Did the noise go up? If so, then a preamp won't help. Your receiver can already hear the noise, so amplifying it more will do no good. While the need, or lack thereof, holds true for FM as well, the test doesn't work for FM because of the nature of the FM detector.

But wait, there's more. As Roy mentioned, they can do more harm than good. What happens is that in your receiver there are all sorts of nonlinear stages, some intentionally, some because nothing is perfect. When a strong signal gets in, these stages are driven to their nonlinear ranges, and generate other signals, or often, simply more noise. Well, there are always some other signals getting in, by making them stronger, the preamp makes this problem worse. And since the preamp amplified the noise as much as the signal, and now added noise, the volume out of the speaker may have gotten louder, but the signal you want to listen to has gotten harder to hear.

Now, as you go up in frequency, a number of things change. First, the atmospheric noise goes down, so you can make use of more gain. Meanwhile, transistors don't work as well, so that gain is harder to come by. To top it off, the internal noise of the amplifiers and so forth increases. In addition to all this, all feedlines have loss, and those losses increase as

you go up in frequency. At UHF you need to move to very expensive feedline to avoid loosing most of your signal. So at the higher frequencies, a preamp can be useful, especially if it can be placed up on the tower, ahead of the feedline. This way the signal can be amplified above the noise level of the circuitry before it has been attenuated down into the mud by the feedline.

So basically, for HF a preamp is almost never a good idea. For VHF, it can be useful for some special situations, especially if you have an older receiver. For UHF, it can be handy if you have a need for a longer feedline and can't afford the gold plated stuff. For microwave, you almost always need a preamp.

Hope this helps

..

2678. Re: Not homebrew -- but can u recommend a rig for Peace Corps volunteer

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-20 23:12:50 UTC
From: gwatts <gwatts@frontiernet.net>
Message-ID: <414F63F7.7040905@frontiernet.net>
Source record: 23112

John Walton wrote:
> conditions are probably going to be hot, dusty, humid, full of critters --
> and battery operation essential --

A few more details might be necessary, like 'how much rig?', 'how much battery available?' and the eternal 'how much money?'.

There are some nice, multiband rigs that do HF, VHF and UHF. If the Corps is sending the volunteer someplace where VHF and UHF aren't used there's not much point in getting that capability, but in some places having VHF/UHF used by the local gov't UHF/VHF capability, even 'bootlegged,' could save someone's life.

Yaesu has a HF/VHF/UHF rig designed for low power use,
The FT-817 http://tinyurl.com/wsat

Icom has an HF low power rig:
Icom IC-703 http://www.icom.co.jp/world/info/ic-703/index.html

Low power could be hard to get through with, if there is power from a vehicle battery or similar a 100 watt rig could be used,
http://www.icomamerica.com/products/amateur/706mkIIg/
I have a Yaesu FT-857D in my vehilce, http://tinyurl.com/vkp3

and these are all backpack/mobile radios, a little more rugged than normal. There are other manufacturers, these I have experience with.

I said 'bootlegged' meaning that there are ways to remove the amateur band transmit frequency limits on pretty much all these radios, a radio sold in America has the American limits, German radios have German limits, if you're out in the jungle or in some small, remote village the laws and their enforcement may be different and the local authority might actually appreciate another communiucation point in their jurisdiction (spoken from personal experience) but be certain.

A good antenna is essential, even the best radio is junk without a good antenna. Good antennas don't have to be expensive, they can be made from wire, it would be very valuable to check in to that as well.

That's all I can say right now, supper's waiting,
Galen, W8LNA

2679. Re: Not homebrew -- but can u recommend a rig for Peace Corps volunteer

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-20 23:17:00 UTC
From: nickel bag <nickbag@dealers.net>
Message-ID: <414F64F1.1080905@dealers.net>
Source record: 23113

John Walton wrote:

> conditions are probably going to be hot, dusty, humid, full of critters --
> and battery operation essential --
>
>

Oh yeah, dusty.

Take a few plastic bags big enough to keep the radio in when you're not using it. The radio will need ventilation when being used, especially in hot places. I've used large Tupperware type containers in snowy and rainy places to keep rigs dry, it'd work for dust and critters.

Humid: If it's too wet, it's too wet. Sometimes letting the radio warm up will drive out moisture, unless it's really hot and humid.

Ok, gotta eat,
Galen, W8LNA

2680. Re: Not homebrew -- but can u recommend a rig for Peace Corps volunteer

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-21 00:39:15 UTC
From: gwatts <gwatts@frontiernet.net>
Message-ID: <TKK3d.4502$DP4.4327@news01.roc.ny>
Source record: 23114

John Walton wrote:
> conditions are probably going to be hot, dusty, humid, full of critters --
> and battery operation essential --
>
>
Oh yeah, dusty.

Take a few plastic bags big enough to keep the radio in when you're not using it. The radio will need ventilation when being used, especially in hot places. I've used large Tupperware type containers in snowy and rainy places to keep rigs dry, it'd work for dust and critters.

Humid: If it's too wet, it's too wet. Sometimes letting the radio warm up will drive out moisture, unless it's really hot and humid.

Ok, posted from the right account this time,
Galen, W8LNA

2681. Re: NEED: Schematics for building a broad band frequency jammer (FM 88M-108M)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-21 01:54:31 UTC
From: Squinch <spermacide@yourconception.com>
Message-ID: <2-KdnZKAOclaFNLcRVn-jA@giganews.com>
Source record: 23115
Cross-posted to: sci.electronics.basics,sci.electronics.design,alt.radio.pirate,rec.radio.amateur.homebrew,alt.2600

"Nina" <nina.p20@gmail.com> wrote in message
news:992361df.0409181121.547277d3@posting.google.com...
> OK guys,
> Thanx meantime for your responses.
> Not getting much help...:(
> I know it's illegal, I know it's dangerous, and I know that I can build a
> huge wall between our houses....
> But, I'm still interested to build this device, for reasons that I cannot
> mention here...
> If anyone wants to help me, please do, but I don't like conferences about
my
> skills, or legal advices etc.
> TIA to anyone who actually tries to help :)
> NINA
>
> nina.p20@gmail.com (Nina) wrote in message
news:<992361df.0409180355.582965c7@posting.google.com>...
> > I would like to build a broad band frequency jammer for the FM
> > broadcast band. I have neighbors that like to play that damn music too
> > loud all day long. I figure if they turn it load and their station
> > goes off the air for a while they might get the message. ;-) :-D
> > If they keep the volume at a respectful level they will be allowed to
> > listen to their music as they wish as long as I don't have to listen
> > to it at uncomfortable levels.
> > I know this is entirely illegal and don't care about it. This is war
> > (!!!)and I plan on winning.
> > If you have plans for something that would help me achieve my goal I
> > would like to hear of it. My electronics skills are advanced (I've
> > used to build and design "bugs" for many years, I own a good equipped
> > lab, enough that I could build a project.
> > I have some experience with rf broadcast circuits.
> > The proximity of the offending radio's location to my house is quite
> > near so I don't believe a transmitter with an overly large
> > power...something between 3-5W
> > will be enough...LOL....
> > I'm "jamming" this neighbour with a 5W transmitter, but have to change
> > the frequency MANUALLY as soon as he changes the station, so I cannot
> > figure out how to do it automatically...
> > I'll be VERY THANKFUL for your help and ideas :)
> > TIA
> > Nina
> > nina.p20@gmail.com

Do you have a schematic of your transmitter you could put up somewhere ?
That would help with varying the frequency.

Squinch

2682. Re: Addendum to "Schematics for building a broad band frequency jammer"

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-21 02:20:06 UTC
From: Rich Grise <null@example.net>
Message-ID: <qdM3d.5200$li2.1369@trnddc09>
Source record: 23116
Cross-posted to: sci.electronics.basics,sci.electronics.design,alt.radio.pirate,rec.radio.amateur.homebrew,alt.2600

On Monday 20 September 2004 10:16 am, AntronX did deign to grace us with the
following:

> Here some options I would recommend:
> 1: Find an old grandpa with a HAM radio setup and old high power HF
> amplifier. Pull a wire across your yard (dipole) and hook it up to the
> antenna tuner and the amp. Then let the old man ragchew with his buddies
> on
> the air while he is overdriving the hell out the amp. This will produce
> very high rf and interference, will get picked up in this stereo speaker
> wires and will make the loudest noize possible. The best part this is
> LEGAL and it will jam his radio alltogether making it unusable even
> listening to a CD... :) If someone shows up complaining about the
> interference, you say that we got the amateur radio licence (that's why
> you need the grandpa) and thell them to get the hell out!!! Then there is
> nothing that FCC can do either...

Where in _hell_ did you ever get this idea? If you think revoke your
ham license and throw you in jail is nothing...

> 2: Wait till he turns the volume the loudest and take your transmitter and
> feed it with very high level of 30-60 Hz sine wave. This will blow his
> speakers out, leaving him with no stereo to listen to... :) :) :)

Just making more noise just doubles the noise for everybody, including
yourself. Notwithstanding you'd be sinking below their level,
classiness-wise.

> PS: Don't take the blames of these fuckin "legal" people to personal. Just
> think that they have no life...

Speaking of having no life!

Talk to the people - they might not even know you can hear it - they might
have hearing loss, from listening to it too loud. If so, you could offer
to build them a visible level meter that lights a red light when it's
too loud.

Who knows? They might be grateful!

Good Luck!
Rich

2683. Re: FedEx loses points with me

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-21 02:27:32 UTC
From: John Moriarity <k6qq@hdo.net>
Message-ID: <10kv4b4sc2n9r74@corp.supernews.com>
Source record: 23117

"John Miles" <jmiles@pop.removethistomailme.net> wrote in message

> I don't have much use for FedEx Ground, though.

I totally agree. I had a guitar shipped to
me from San Diego (to Alturas, CA)
by FedEx Ground, the shipper's choice.

I watched it move around California for
several days, and then it got stuck in
Reno, NV. A few days later, I got a
notice in my mailbox, that a package
was waiting for me at the Post Office.
FedEx had *mailed* it to me from Reno!!

When I complained, I was told that they
reserved the right to *mail* a Ground
shipment to a "remote" destination!!

Just don't use "Ground".

73, John - K6QQ

2684. Re: NEED: Schematics for building a broad band frequency jammer (FM 88M-108M)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-21 02:45:08 UTC
From: Rich Grise <null@example.net>
Message-ID: <UAM3d.5218$li2.1546@trnddc09>
Source record: 23118
Cross-posted to: sci.electronics.basics,sci.electronics.design,alt.radio.pirate,rec.radio.amateur.homebrew,alt.2600

On Sunday 19 September 2004 07:54 pm, Nina did deign to grace us with the
following:

> Well...
> Thanx all who tried to help me in any way :)
> The whole "story" is:
> The main problem is the guy I'm dealing with...He is a mentally ill
> guy, that has been freed from a madhouse about 3 month ago. He lives
> in his 14 room yard (yes, he sleeps there too) and has conflicts with
> all authorities, including police. He's arrested from time to time for
> violence against his wife or children or neighbours, but released
> after a few hours, as he is - as I said - insane, and the authorities
> are powerless against him. He is really ill, but not stupid. He lowers
> the volume between 14:00-16:00 and from 00:00 up to 06:00. Lower, not
> closing...
> Our windows are about 10m from his yeard, so you can imagine...
> I've considered all the suggestions some of the members gave, as
> others have said, jamming his radio could get me into serious
> troubles, and changed my "jammer" with a 50-100mW module...It has
> about the same effect.
>
If in fact, the man is ill, that exacerbates the disservice you'd
be doing both to him, his family, the neighbors, and yourself by
simply making jamming noises. That's the response of a spoiled 2-
year-old brat.

It's not your responsibility to help him with his mental problems,
but the adult thing to do on your part would be to be civilized
about it - if you can't talk to the guy in a civilized fashion,
find some neutral third party, maybe a clergyman or something.

If he's doing violence against his wife, sadly, it's her
responsibility to charge the guy with battery and make it stick -
it's irrelevant how sick a person is, they "should" still be
accountable for their actions.

And violating noise ordinances is actionable. If talking to
him is ineffective, then file a formal complaint, and if it
doesn't do any good, then file another, and keep it up
until "they" do something about it. If a couple of years
go by, and you have documentation of being blown off, then
go to the attorney general and sue the pants off of everyone
involved.

If it really comes to that, you might have to hire somebody with credentials to come out with a sound level meter - but document, document, document. Leave a paper trail.

Of course, don't do any of this crap if in fact you know that you're wrong and are simply overreacting to normal neighbor noise.

Good Luck!
Rich

2685. FA: Weller Soldering Station

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-21 02:46:52 UTC
From: mike <k6zsr@k6zsr.com>
Message-ID: <BCM3d.52283$9Y5.12929@fed1read02>
Source record: 23119

Weller WCTP soldering station: see it at:

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&rd=1&item=5721464876&ssPageName=STRK:MESE:IT

2686. Re: NEED: Schematics for building a broad band frequency jammer (FM 88M-108M)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-21 02:47:51 UTC
From: Rich Grise <null@example.net>
Message-ID: <rDM3d.5221$li2.4067@trnddc09>
Source record: 23120
Cross-posted to: sci.electronics.basics,sci.electronics.design,alt.radio.pirate,rec.radio.amateur.homebrew,alt.2600

On Monday 20 September 2004 06:50 am, John Miller did deign to grace us with
the following:

> Nina wrote:
>> Wow people !!!
>> I'm feeling now as a killer !!! I'm breaking the laws !!! I'm not a
>> honest person !!! I'll go to HELL !!!
>> The police is near to my door with sophisticated devices - just to
>> catch a criminal...Ben Laden is a kid for me... what else ??????????
>> I've just asked for a simple idea or schematic - and I've been so
>> blamed I'm afraid to look in the mirror...
>> When I asked your help I did it AFTER trying all other options you
>> wrote, AFTER being polite, AFTER the involvement of the law...
>> Maybe my reqest sounds stupid or maybe I AM STUPID, but I'd like to
>> see any of you my friends in my situation, without resting time even
>> in holidays, withot any help. After suffering all day long without a
>> posibility to open a window in the house...I'm almost sure that if
>> anyone of you would be bothered day and night by a lunatic, without
>> any chance to get help from anyone, even from legal authorities -
>> you'll loose the "polite" word from your lexicon...
>> What I know is I won't sale my house, and I'll fight back.
>> Even it's not legal...
>
> Sometimes what we ask for isn't what we really want.
>
> Your real objective is not to build a transmitter, but rather, to stop
> the noise, am I right?
>
> Seems to me that if you were given two options, one of which could lead
> to a hefty fine and possible prison time, and another that wouldn't,
> you'd surely prefer the safe option. But maybe not.
>
No, she's clearly more insane than the lunatic.

Or at least stupider.

Cheers!
Rich

2687. Re: CB "Swing"? (proper AM modulation)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-21 05:08:28 UTC
From: Gary Schafer <gaschafer@comcast.net>
Message-ID: <m7dvk050r8cs6n78tnhkd7gjq995vtaqru@4ax.com>
Source record: 23121

Well Chris, you got a lot of good advice and some completely wrong advice. Funny thing is nobody really answered your question!

I don't know where the CB guys get their power ratings for their amps but the one that you list is not a correct rating unless the amp is very deficient.

A LINEAR amplifier that is capable of 200 watts PEP on SSB should also be capable of 200 watts PEP on AM. Since a properly modulated AM signal has a PEP of 4 times the carrier power (as explained by some others), the carrier of that amp should be only 50 watts.

You need to use a PEP watt meter to see the peak envelope power (PEP). A regular watt meter will not follow the modulation peaks. A regular watt meter should stand still with modulation. It may wiggle a little but not much. If it "swings" way up then you are over modulating (also explained by others).

An AM signal with 50 watts of carrier has 25 watts total average audio power associated with it for 100% modulation. 12 1/2 watts in each side band. This gives you 200 watts peak envelope power (PEP) at full modulation.

At first glance it may not seem right as 50 watts plus 25 watts equals 75 watts. So where does the 200 watts come from? Read on.

By the way the carrier power remains constant in a properly modulated AM transmitter. It does not change with modulation. There are modulation schemes that do vary the carrier power along with the audio but not common as to this discussion.

If you look at an AM signal on a scope it looks as though the carrier is changing, going down to zero and up to twice the level. What you are seeing is the composite voltage from all three signals (carrier and 2 side bands) combined.

Back to the PEP. The carrier power remains constant and the audio power is converted into RF signals that appear on either side of the carrier frequency. This "side band power" from the audio is independent of the carrier. You can eliminate the carrier and you have "double side band suppressed carrier". Eliminate one of the side bands and you have a single side band signal.

Because the amplifier must handle three separate signals at the same time (lower side band, carrier and upper side band) it must be capable of the maximum sum of all the signals present.

In determining PEP you can not directly add powers together. As above, 50 watts of carrier plus 12 1/2 watts in each side band would seem to add up to 75 watts total power. But you must first add the voltages from all 3 signals together first. Then calculate what the power is.

One way to do this is at the 50 ohm antenna line impedance.
Where E = rms voltage. R = ohms. P = average power.

To find the voltage E = square root of PxR. So 50 watts across 50 ohms will produce: 50x50 = 2500. Square root of 2500 = 50 volts rms. Now for the side band powers: 12.5 watts x 50 ohms = 625. Square root of 625 = 25=volts. The same calculation is done for the other side band. We get another 25 volts from it. Now if we add these 3 voltages together 50 + 25 + 25 we have a total of 100 volts on the antenna line at peak modulation levels.

To find the peak envelop power we calculate the power by P=E squared /R.
So 100 x 100 = 10000 divided by 50 ohms, (the line impedance) = 200 watts!

This is how you convert average power to PEP. I say average power because RMS power is really a misnomer. There is no such thing as RMS power as so many commonly refer to. It is really AVERAGE power. It is derived from RMS current and RMS voltage but what you get when you multiply RMS voltage by RMS current or resistance is an AVERAGE value, not an RMS value.
This may seem trivial but it becomes important when trying to convert from one form to another. Using the wrong notation can give you wrong answers.

As to the above, the average voltage or current of a sine wave is 50% of the peak.
The rms value of a sine wave is .707 of the peak voltage or current. If you multiply .707 (rms voltage) by .707 (rms current) you get .5 or 50%.
This is AVERAGE. It is no longer an rms value.

By the way, the definition of peak envelope power (PEP) is: "The average power contained in one RF cycle at the crest of the modulation envelope". (note that the definition says "AVERAGE power" not RMS power)

If you think about it for awhile, keeping in mind how we added the voltages together to find the PEP, and also keep in mind that the audio signals have been turned into RF signals, you will better understand what PEP really is.

Here is another thing to consider: With just a carrier and no modulation, the PEP power is the same as the average power of that signal.

With only an SSB signal in the amp, the amp does not need to deal with any composite signal. No voltages to add together. Only one signal to

amplify so that one signal can occupy the full power of the amp. Thus
that 200 watt PEP amp can now handle full 200 watts of side band power
rather than 12 1/2 watts for one side band with the AM signal.

Hope this helps

73
Gary K4FMX

On Wed, 15 Sep 2004 15:03:40 GMT, "Chris"
<REMOVEchris1379ME@bigfoot.com> wrote:

>I think I've got it figured out. For AM, the carrier should be 1/8 of the
>PEP maximum or 1/4 of the max carrier. So an amp rated 100W AM/FM/CW, 200
>WPEP SSB should run with a 25 W carrier on AM. Does that sound right to
>everyone?
>
>Chris
>"Chris" <REMOVEchris1379ME@bigfoot.com> wrote in message
>news:7WE1d.166$gG4.101@newsread1.news.pas.earthlink.net...
>| I will probably get some flames from this but here it goes. I have been
>into
>| CB radio for a number of years but don't agree with most of what I hear.
>| That's just one of the reasons I'm looking to amateur radio. One of the
>| things I often hear in CB circles is that one should turn a 4 watt AM
>radio
>| down to 1 1/2 watts and let it "SWING". How is this possible? What really
>| happens when you do this? I think I know. So, how much carrier should you
>| have for an amp or final stage with a known max output. In other words, if
>| it can produce 8 watts max unmodulated carrier, is a 4 watt carrier ideal?
>| If it produces 100 watts, is 50 watts ideal? How much "space"does it need
>| for proper modulation? Is there a website that explains this well? I'm an
>| electronics tech thirsting for knowledge.
>|
>| Chris
>|
>|
>

2688. Re: NEED: Schematics for building a broad band frequency jammer (FM 88M-108M)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-21 07:29:04 UTC
From: nina.p20@gmail.com
Message-ID: <992361df.0409202329.7f4e15ea@posting.google.com>
Source record: 23122
Cross-posted to: sci.electronics.basics,sci.electronics.design,alt.radio.pirate,rec.radio.amateur.homebrew,alt.2600

Rich Grise <null@example.net> wrote in message news:<rDM3d.5221$Ii2.4067@trnddc09>...
> On Monday 20 September 2004 06:50 am, John Miller did deign to grace us with
> the following:
>
> > Nina wrote:
> >> Wow people !!!
> >> I'm feeling now as a killer !!! I'm breaking the laws !!! I'm not a
> >> honest person !!! I'll go to HELL !!!
> >> The police is near to my door with sophisticated devices - just to
> >> catch a criminal...Ben Laden is a kid for me... what else ??????????
> >> I've just asked for a simple idea or schematic - and I've been so
> >> blamed I'm afraid to look in the mirror...
> >> When I asked your help I did it AFTER trying all other options you
> >> wrote, AFTER being polite, AFTER the involvement of the law...
> >> Maybe my reqest sounds stupid or maybe I AM STUPID, but I'd like to
> >> see any of you my friends in my situation, without resting time even
> >> in holidays, withot any help. After suffering all day long without a
> >> posibility to open a window in the house...I'm almost sure that if
> >> anyone of you would be bothered day and night by a lunatic, without
> >> any chance to get help from anyone, even from legal authorities -
> >> you'll loose the "polite" word from your lexicon...
> >> What I know is I won't sale my house, and I'll fight back.
> >> Even it's not legal...
> >
> > Sometimes what we ask for isn't what we really want.
> >
> > Your real objective is not to build a transmitter, but rather, to stop
> > the noise, am I right?
> >
> > Seems to me that if you were given two options, one of which could lead
> > to a hefty fine and possible prison time, and another that wouldn't,
> > you'd surely prefer the safe option. But maybe not.
> >
> No, she's clearly more insane than the lunatic.
>
> Or at least stupider.
>
> Cheers!
> Rich

Thanx a lot for the "compliments" Mr. Rich. You helped me a lot !!!

2689. FS: 39 pieces>All sorts of Potentiometers, Most Philco marked, w/Pics

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-21 14:03:40 UTC
From: rlucch2098@aol.com
Message-ID: <20040921100340.10414.00002670@mb-m23.aol.com>
Source record: 23123

Hi All;
You never know when you'll need a pot for restoration purposes:-)
Most on these are brand new but NOS, never been soldered on.
There are:
9-doubles marked Philco, 750 & 15K ohms.
21-Singles marked Philco, 750 ohms.
1- Used 500 ohm.
2-nos, 2-section 1.2Meg ea.
2-nos, 2-section, 2.5 & 2.2 Meg ea.
1-nos 100K
2-nos, 2-section 23K ea.
1-nos 5k.
I hope someone can use these, shame to let them go to the "bone Yard":-(
PICS:
http://www.myradioroom.com/9pots.jpg
http://www.myradioroom.com/30philcopots1.jpg
http://www.myradioroom.com/30philcopots2.jpg
http://www.myradioroom.com/30philcopots3.jpg
Price is $20ppd!
Thanks es 73.....RICH-WA2RQY RLUCCH2098@aol.com
Cheep Manuals for sale @>>
http://www.myradioroom.com/manualsales.html
Web-Page URL>
HTTP://members.aol.com/rlucch2098/index.html

2690. FETs: measuring Vgs(off)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-21 15:32:14 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <0th0l094c5c3f8mk0ikgcr4dp3uglb4umv@4ax.com>
Source record: 23124
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

Hi guys,

I saw in Malvino's Electronic Principles that it is stated that Idss and gfs (the transconductance/gain) are easy to measure, whereas Vgs(off) is not and that manufacturers calculate it from this formula (hope I've remembered it right)

Vgs(off) = -2*Idss/gfs

I've just checked out this assertion by measuring Vgs - v - Id for a bunch of assorted FETs and found that I could easily establish the pinch off voltage to within about 0.1V either way. Contrary to what the book says, I personally have found it a simple matter to measure Vgs(off). So why do they make out it's a big deal?

p.
--

"What is now proved was once only imagin'd." - William Blake, 1793.

2691. Re: measuring Vgs(off)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-21 18:56:00 UTC
From: Helmut Sennewald <helmutsennewald@t-online.de>
Message-ID: <cipt3k$2da$02$1@news.t-online.com>
Source record: 23125
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

"Paul Burridge" <pb@notthisbit.osiris1.co.uk> schrieb im Newsbeitrag
news:0th0l094c5c3f8mk0ikgcr4dp3uglb4umv@4ax.com...
> Hi guys,
>
> I saw in Malvino's Electronic Principles that it is stated that Idss
> and gfs (the transconductance/gain) are easy to measure, whereas
> Vgs(off) is not and that manufacturers calculate it from this formula
> (hope I've remembered it right)
>
> Vgs(off) = -2*Idss/gfs
>
> I've just checked out this assertion by measuring Vgs - v - Id for a
> bunch of assorted FETs and found that I could easily establish the
> pinch off voltage to within about 0.1V either way. Contrary to what
> the book says, I personally have found it a simple matter to measure
> Vgs(off). So why do they make out it's a big deal?

Hello Paul,
Vgs_off seems to be often specified at Id=1nA. The measurement
at such low current levels takes a lot of time and it requires a
very clean test fixture.

How have you measured at exactly Id = 1nA +/-0.1nA ?

Best Regards,
Helmut

A typical datasheet:
http://www.fairchildsemi.com/ds/J3/J310.pdf

2692. Re: measuring Vgs(off)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-21 19:30:49 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <knv0l0plqfovic8m7sg8q5ko7jq9uk2605@4ax.com>
Source record: 23126
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Tue, 21 Sep 2004 20:56:00 +0200, "Helmut Sennewald"
<helmutsennewald@t-online.de> wrote:

>Hello Paul,
>Vgs_off seems to be often specified at Id=1nA. The measurement
>at such low current levels takes a lot of time and it requires a
>very clean test fixture.
>
>How have you measured at exactly Id = 1nA +/-0.1nA ?

Hi Helmut,

Is it 1nA? I thought it was 5. No matter.
Yes, I'd expected someone to point out that the "negligible current"
point was the likely problem area. I can't honestly say that I have,
because my DVM drops out at 0.01mA! However, in the context of the
wide spread of parameters one encounters with FETs., I'm pretty
confident my 'drop-out' zone for current measurement is not too far
off the mark. But you've answered my question and as ever I'm grateful
to you for that.
I actually found it more difficult measuring Id as Vgs approached
zero. The negative tempco of these devices made that part more
challenging. Fortunately I've got a 'peak-hold' button on my meter and
by only connecting the drain circuit for a fraction of a second I was
able to get what I believe to be a valid reading. Certainly good
enough given the cushion one has to build into FET circuit design as a
matter of course, anyway.

>A typical datasheet:
>http://www.fairchildsemi.com/ds/J3/J310.pdf

Ah, I see they use a 300uS pulse, presumably to keep the device
temperature down?

Regards,

p.

2693. Battery question

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-21 19:46:52 UTC
From: Greg Dermer <greg.dermer@intel.com>
Message-ID: <ciq0fc$nu7$1@news01.intel.com>
Source record: 23127

I've already posted this request on sci.electronics.design, but I'll try here as well.
I know there is lots of info out there, so maybe someone has an old catalog or cross reference:

Does anyone have any data on a Mallory SKB-830 battery? Ampere-hour capacity, voltage and /or polarity of the snap terminals would be most helpful.

TIA

Greg WA9WUM

2694. Re: measuring Vgs(off)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-21 19:54:35 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <mk11l0pn3ts903ch23ul66vh3g7qfag84s@4ax.com>
Source record: 23128

On Tue, 21 Sep 2004 20:56:00 +0200, "Helmut Sennewald"
<helmutsennewald@t-online.de> wrote:

>"Paul Burridge" <pb@notthisbit.osiris1.co.uk> schrieb im Newsbeitrag
>news:0th0l094c5c3f8mk0ikgcr4dp3uglb4umv@4ax.com...
>> Hi guys,
>>
>> I saw in Malvino's Electronic Principles that it is stated that Idss
>> and gfs (the transconductance/gain) are easy to measure, whereas
>> Vgs(off) is not and that manufacturers calculate it from this formula
>> (hope I've remembered it right)
>>
>> Vgs(off) = -2*Idss/gfs
>>
>> I've just checked out this assertion by measuring Vgs - v - Id for a
>> bunch of assorted FETs and found that I could easily establish the
>> pinch off voltage to within about 0.1V either way. Contrary to what
>> the book says, I personally have found it a simple matter to measure
>> Vgs(off). So why do they make out it's a big deal?
>
>Hello Paul,
>Vgs_off seems to be often specified at Id=1nA. The measurement
>at such low current levels takes a lot of time and it requires a
>very clean test fixture.
>
>How have you measured at exactly Id = 1nA +/-0.1nA ?
>
>Best Regards,
>Helmut
>
>A typical datasheet:
>http://www.fairchildsemi.com/ds/J3/J310.pdf
>

So, with not too much fault you may use a VTVM as load and see which
voltage it reads....

J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

2695. Re: measuring Vgs(off)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-21 20:05:08 UTC
From: John Walton <jdwalton@comcast.net>
Message-ID: <1KydnfkpGb3-Fc3cRVn-vw@comcast.com>
Source record: 23129
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

International Rectifier has a white-paper on characterizing MOSFET's --
kind of like comparing a Caterpillar D-9 to a bicycle -- but all of the
standardized measurement methods are described in detail.

If you have to measure nano, pico or femto -- Bob Pease had this interesting
article on the NatSemi website about a half-dozen years ago:

http://www.national.com/rap/Story/0,1562,5,00.html

"Paul Burridge" <pb@notthisbit.osiris1.co.uk> wrote in message
news:0th0l094c5c3f8mk0ikgcr4dp3uglb4umv@4ax.com...
> Hi guys,
>
> I saw in Malvino's Electronic Principles that it is stated that Idss
> and gfs (the transconductance/gain) are easy to measure, whereas
> Vgs(off) is not and that manufacturers calculate it from this formula
> (hope I've remembered it right)
>
> Vgs(off) = -2*Idss/gfs
>
> I've just checked out this assertion by measuring Vgs - v - Id for a
> bunch of assorted FETs and found that I could easily establish the
> pinch off voltage to within about 0.1V either way. Contrary to what
> the book says, I personally have found it a simple matter to measure
> Vgs(off). So why do they make out it's a big deal?
>
> p.
> --
>
> "What is now proved was once only imagin'd." - William Blake, 1793.

2696. Re: Battery question

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-21 20:26:28 UTC
From: Marty Albert <kc6ufm@amsat.org>
Message-ID: <U704d.18103$QJ3.755@newssvr21.news.prodigy.com>
Source record: 23130

A fast google didn't turn up anything for me, but you might check with the folks at Duracell... They are the old Mallory battery folks.

From The Desk Of
Marty Albert
KC6UFM

"Greg Dermer" <greg.dermer@intel.com> wrote in message news:ciq0fc$nu7$1@news01.intel.com...
> I've already posted this request on sci.electronics.design, but I'll try
> here as well.
> I know there is lots of info out there, so maybe someone has an old catalog
> or cross reference:
>
> Does anyone have any data on a Mallory SKB-830 battery? Ampere-hour
> capacity, voltage and /or polarity of the snap terminals would be most
> helpful.
>
> TIA
>
> Greg WA9WUM
>
>

2697. Re: measuring Vgs(off)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-22 00:19:50 UTC
From: Ian Stirling <root@mauve.demon.co.uk>
Message-ID: <4150c525$0$76847$ed2e19e4@ptn-nntp-reader04.plus.net>
Source record: 23131
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

In sci.electronics.design Paul Burridge <pb@notthisbit.osiris1.co.uk> wrote:
> On Tue, 21 Sep 2004 20:56:00 +0200, "Helmut Sennewald"
> <helmutsennewald@t-online.de> wrote:
>
>>Hello Paul,
>>Vgs_off seems to be often specified at Id=1nA. The measurement
>>at such low current levels takes a lot of time and it requires a
>>very clean test fixture.
>>
>>How have you measured at exactly Id = 1nA +/-0.1nA ?
>
> Hi Helmut,
>
> Is it 1nA? I thought it was 5. No matter.
> Yes, I'd expected someone to point out that the "negligible current"
> point was the likely problem area. I can't honestly say that I have,
> because my DVM drops out at 0.01mA! However, in the context of the

Turn it to voltage.
Most meters (the four I've measured) have a 1Mohm or so input impedance
on the 200mv range.
This is 200nA full scale.
Probably best to do the test twice, with the meter leads reversed though.

2698. wtb qrp++

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-22 01:48:11 UTC
From: w8irq@aol.com
Message-ID: <20040921214811.18603.00001225@mb-m07.aol.com>
Source record: 23132

I(f you want to sell yours, give me a call. 330-225-7499, cell# 216 -402-4566
Nick

2699. Had to fix my TS440SAT, cracked solder joints on a transistor

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-22 02:45:46 UTC
From: Robert Casey <wa2ise@ix.netcom.com>
Message-ID: <4150E757.6070601@ix.netcom.com>
Source record: 23133

Was Q37's leads to the IF circuit board. Somehow it
developed circular cracks in the solder joint from
the leads to the board. It kept the rig from going
into transmit. It was just a control line level
shifter or inverter.

Oddly enough I had just finished installing a new
wire dipole strung between trees on my house's
quarter acre lot. Something vaguely resembling a
80 meter dipole with a W2AU balun at the feedpoint.
I thought that I somehow toasted
the xmit part of the rig with a bad antenna, but the
rig has self protection circuits. I don't think bad
solder joints on a control line transistor would be
caused by a new antenna.... :-)

2700. Re: measuring Vgs(off)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-22 02:50:22 UTC
From: Winfield Hill <Winfield_member@newsguy.com>
Message-ID: <ciqp9e0r48@drn.newsguy.com>
Source record: 23136
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

Ian Stirling wrote...
>
> Paul Burridge wrote:
>> Helmut Sennewald wrote:
>>
>>> Vgs_off seems to be often specified at Id=1nA. The measurement
>>> at such low current levels takes a lot of time and it requires a
>>> very clean test fixture.
>>
>> Is it 1nA? I thought it was 5. No matter.
>> Yes, I'd expected someone to point out that the "negligible current"
>> point was the likely problem area. I can't honestly say that I have,
>> because my DVM drops out at 0.01mA! However, in the context of the
>
> Turn it to voltage. Most meters (the four I've measured) have a 1Mohm
> or so input impedance on the 200mv range. This is 200nA full scale.
> Probably best to do the test twice, with the meter leads reversed though.

The multimeters on my bench have infinite input impedance on the 200mV
scale, although some let you turn on an internal resistor. We can use
external 10M or 100M if we like, which gives 1pA and 0.1pA measurement
resolution with a 4.5-digit meter.

The relevant "subthreshold" formula is Id = k e^(Vgs - Vt), which is
an exponential equation that clearly shows there's no sudden threshold
for FET current => negligible. Paul can take a look at AoE page 123,
and observe the measured gate-voltage to drain current relationship for
a typical MOSFET, which shows the standard smooth 100 or 150mV/decade
(p or n-type) gate-voltage change over a wide 7-decade current range.

1 or 5nA makes no difference? Nope, that apparently small detail makes
a predictably large 70 to 100mV difference. One must pay attention to
the specifications in this matter, 1nA, 1uA, whatever - it's a big deal.

BTW, as I've pointed out several times, power MOSFET spice models are
completely wrong in this region, just forget considering their results.

--
Thanks,
- Win

(email: use hill_at_rowland-dotties-org for now)

2701. Re: NEED: Schematics for building a broad band frequency jammer (FM 88M-108M)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-22 03:04:46 UTC
From: Lady Chatterly <null@catcher.in.the.rye>
Message-ID: <3b4452e.0e8891f9@chatterly.databasix.com>
Source record: 23135
Cross-posted to: sci.electronics.basics,sci.electronics.design,alt.radio.pirate,rec.radio.amateur.homebrew,alt.2600

```
In article <P364d.9613$464.6787@trnddc01>,
Rich Grise <null@example.net> wrote:
>
>On Tuesday 21 September 2004 12:29 am, Nina did deign to grace us with the
>following:
>
>> Rich Grise <null@example.net> wrote in message
>> news:<rDM3d.5221$Ii2.4067@trnddc09>...
>>> On Monday 20 September 2004 06:50 am, John Miller did deign to grace us
>>> with the following:
>>>
>>> > Nina wrote:
>>> >> Wow people !!!
>>> >> I'm feeling now as a killer !!! I'm breaking the laws !!! I'm not a
>>> >> honest person !!! I'll go to HELL !!!
>......
>>> >> What I know is I won't sale my house, and I'll fight back.
>>> >> Even it's not legal...
>>> >
>>> > Sometimes what we ask for isn't what we really want.
>>> >
>>> > Your real objective is not to build a transmitter, but rather, to stop
>>> > the noise, am I right?
>>> >
>>> > Seems to me that if you were given two options, one of which could lead
>>> > to a hefty fine and possible prison time, and another that wouldn't,
>>> > you'd surely prefer the safe option. But maybe not.
>>> >
>>> No, she's clearly more insane than the lunatic.
>>>
>>> Or at least stupider.
>>>
>>
>> Thanx a lot for the "compliments" Mr. Rich. You helped me a lot !!!
>
>The facts are, that's as close to a compliment as I'm about to dispense
>to someone with a "Fuck'em I'm gonna break the law and be even stupider
>than the insane guy!" attitude.

Are you sure you are about to dispense to someone with a fuckem you
are gonna break the law and be even stupider than the insane guy?
```

>Good Luck.
>Rich

He who sups with the devil has need of a long spoon.

--
Lady Chatterly

"HA! Seems Lady Chatterly trolls on over to the Michael Jackson group
- to create chaos there too!!!!!" -- Judy

2702. Re: NEED: Schematics for building a broad band frequency jammer (FM 88M-108M)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-22 03:11:43 UTC
From: Rich Grise <null@example.net>
Message-ID: <P364d.9613$464.6787@trnddc01>
Source record: 23134
Cross-posted to: sci.electronics.basics,sci.electronics.design,alt.radio.pirate,rec.radio.amateur.homebrew,alt.2600

```
On Tuesday 21 September 2004 12:29 am, Nina did deign to grace us with the
following:

> Rich Grise <null@example.net> wrote in message
> news:<rDM3d.5221$Ii2.4067@trnddc09>...
>> On Monday 20 September 2004 06:50 am, John Miller did deign to grace us
>> with the following:
>>
>> > Nina wrote:
>> >> Wow people !!!
>> >> I'm feeling now as a killer !!! I'm breaking the laws !!! I'm not a
>> >> honest person !!! I'll go to HELL !!!
.....
>> >> What I know is I won't sale my house, and I'll fight back.
>> >> Even it's not legal...
>> >
>> > Sometimes what we ask for isn't what we really want.
>> >
>> > Your real objective is not to build a transmitter, but rather, to stop
>> > the noise, am I right?
>> >
>> > Seems to me that if you were given two options, one of which could lead
>> > to a hefty fine and possible prison time, and another that wouldn't,
>> > you'd surely prefer the safe option. But maybe not.
>> >
>> No, she's clearly more insane than the lunatic.
>>
>> Or at least stupider.
>>
>
> Thanx a lot for the "compliments" Mr. Rich. You helped me a lot !!!

The facts are, that's as close to a compliment as I'm about to dispense
to someone with a "Fuck'em I'm gonna break the law and be even stupider
than the insane guy!" attitude.

Good Luck.
Rich
```

2703. Re: Not homebrew -- but can u recommend a rig for Peace Corps volunteer

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-22 06:26:41 UTC
From: The Eternal Squire <eternalsquire@comcast.net>
Message-ID: <BcmdnQ9pAea_hszcRVn-oA@comcast.com>
Source record: 23137

John,

May I suggest a few points of prudence for you to consider?

1) Are you transmitting or simply intending to receive?

The former will most definitely require both a General Class license or higher in this country, and either a reciprocal license, local license, government permit, or a joint recognition treaty with the host country that gives you the equivalent of General priviledges over there.

Keep in mind also that you will be limited to the priviledges of the host country which extends these priviledges to you.

Even the possession of a receiver may require a license in the host country. There could be several reasons for this: authoritarian state where individual rights are far from paramount in the eyes of thier law, free state (UK) that takes revenue from receiver licenses, or a state where all communications are nationalized and thus even receivers are considered government property.

2) Assuming you are transceiving, for what purpose do you intend to use the transceiver for?

If you are intending to contact relatives and home office stateside as third parties, you cannot use the amateur bands for this purposes, as this is considered a business communication. There are countries having even stricter third party restrictions than we have, and you would of course need to consider the laws of both countries prior to originating or handling such traffic.

You would be well advised to invest in a satellite phone instead.

3) If you are being sent to a place where the politics are at best volatile and at worst violent, the possession of amateur gear could be misconstrued by anyone from government paramilitaries to insurgent terrorists in the host country as equipment in support of espionage.

The discovery of such gear in your possession could place your life in even worse danger than your status as a US Peace Corp Volunteer normally would.

This is another extremely good reason to consider a satellite phone instead.

4) Unless you can arrange for the item to be conveyed via "diplomatic pouch", be prepared to pay a heavy customs duty to the host country. The US State Department is usually quite cooperative with arranging diplomatic immunity for conveyance of items necessary to the mission of

the US Peace Corp, though this is usually more along the category of medications for humanitarian purposes. Consult with your superior for more details.

5) If you are still determined, you should next consider tradeoffs in reliability, portability, and rugged construction:

a) In terms of reliability, well constructed all-tube SSB/morse gear is the gold standard for taking both physical and electrical abuse in unknown situations, and can invariably run off of 50 or 60 hertz mains across a wide range of input AC voltage level - 117 volts gear can generally operate from 90 Volts minimum to 130 maximum.

Collins gear circa 1950-1970 would be eminently suitable for semipermanent stations, and you can still see complete Collins transcievers in working condition for under $1000. US military surplus all-band SSB transcievers of similar construction to Collins may also prove suitable.

The main disadvantages of this approach are: (1) you would need access to a dedicate power grid or at the very least, or at least 3 watts of power inverted from several paralled car batteries for every watt of power you intend to transmit. A 1000 Watt power inverter would be suitable for 300 Watts transmitter output. (2) due to the relative fragility of vaccum tubes, you should take at least 2 spares of every tube used by your transciever, and at least 3 extra sets of final amplifier tubes.

b) Well constructed hybrid transistor/tube gear is the next best with respect to physical abuse, but it is generally restricted in terms of the variety of power supplies which can be adapted to it. It is much more sensitive to power supply frequency, and a sag or surge much outside 10% of the 117 volts input could even damage your gear.

The later model Heathkits, Yaesus, and Galaxies (I cut my teeth on a Galaxy V Mark II during childhood), are all very good examples.

c) All-semiconductor gear such as from Icom, has the advantage of being miniature, highly sensitive with outstanding selectivity for weak signal work, quite flexible to operate, and can be run directly off of a car battery, generator, or solar panels without need of inversion.

The main disadvantage is the exquisite sensitivity of modern semiconductors to dirty power, I recommend very much against running any all-semiconductor gear from a third-world power grid. Another major disadvantage is the lack of user-servicable parts... if you intend to go this route, bring TWO of them with you.

6) Don't forget other important station accessories, such as low pass filter output, output balun, transmatch, and SWR meter. Old style wraparound headphones are especially important for operator comfort. Expect to spend another $1000 to $1500 on the accessories allow, if you want rugged and top of the line accessories from the best names.

7) Paralleled inverted vee antennas cut for the bands you desire to
operate will give you the most flexible compromise between
bandswitching, local, and intercontinental operation. Consult the
ARRL Antenna Book for details.

Good luck,

The Eternal Squire

gwatts wrote:
> John Walton wrote:
>
>> conditions are probably going to be hot, dusty, humid, full of
>> critters -- and battery operation essential --
>>
> Oh yeah, dusty.
>
> Take a few plastic bags big enough to keep the radio in when you're not
> using it. The radio will need ventilation when being used, especially
> in hot places. I've used large Tupperware type containers in snowy and
> rainy places to keep rigs dry, it'd work for dust and critters.
>
> Humid: If it's too wet, it's too wet. Sometimes letting the radio warm
> up will drive out moisture, unless it's really hot and humid.
>
> Ok, posted from the right account this time,
> Galen, W8LNA

2704. Re: Schematics for building a broad band frequency jammer (FM 88M-108M)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-22 10:47:34 UTC
From: Brian - KB9BVN <kb9bvn@arrl.net>
Message-ID: <aLc4d.9965$n16.3985@newsread2.news.atl.earthlink.net>
Source record: 23138
Cross-posted to: sci.electronics.basics,sci.electronics.design,alt.radio.pirate,rec.radio.amateur.homebrew,alt.2600

Why don't you just call the cops?

It'll save you the $10,000 the FCC will want to fine you.

"Nina" <nina.p20@gmail.com> wrote in message
news:992361df.0409180355.582965c7@posting.google.com...
> I would like to build a broad band frequency jammer for the FM
> broadcast band. I have neighbors that like to play that damn music too
> loud all day long. I figure if they turn it load and their station
> goes off the air for a while they might get the message. ;-) :-D
> If they keep the volume at a respectful level they will be allowed to
> listen to their music as they wish as long as I don't have to listen
> to it at uncomfortable levels.
> I know this is entirely illegal and don't care about it. This is war
> (!!!)and I plan on winning.
> If you have plans for something that would help me achieve my goal I
> would like to hear of it. My electronics skills are advanced (I've
> used to build and design "bugs" for many years, I own a good equipped
> lab, enough that I could build a project.
> I have some experience with rf broadcast circuits.
> The proximity of the offending radio's location to my house is quite
> near so I don't believe a transmitter with an overly large
> power...something between 3-5W
> will be enough...LOL....
> I'm "jamming" this neighbour with a 5W transmitter, but have to change
> the frequency MANUALLY as soon as he changes the station, so I cannot
> figure out how to do it automatically...
> I'll be VERY THANKFUL for your help and ideas :)
> TIA
> Nina
> nina.p20@gmail.com

2705. Re: NEED: Schematics for building a broad band frequency jammer (FM 88M-108M)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-22 11:09:09 UTC
From: Fred Bloggs <nospam@nospam.com>
Message-ID: <41515D52.2070104@nospam.com>
Source record: 23140
Cross-posted to: sci.electronics.basics,sci.electronics.design,alt.radio.pirate,rec.radio.amateur.homebrew,alt.2600

Nina wrote:

>
>
> Right, my real objective is not to build a transmitter, but rather, to
> stop
> the noise, you are right. So, I have 2 options: to continue hearing
> the noise all day long, to be a prisoner in my own house (I wonder if
> in prison the prisoners have to close their windows in their
> cells...), or to go to a real prison to find it out....
> It seems to me it's the same option, just changing the name.
>
> Meantime, as I wrote, I'm using from time to time a mini-bug, very
> effective...

What kind of area do you live in? There are people you can hire to take care of this the old-fashioned way.

2706. Re: Had to fix my TS440SAT, cracked solder joints on a transistor

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-22 11:10:56 UTC
From: Scott <acepilot@bloomer.net>
Message-ID: <zb-dneHGgseGwMzcRVn-rQ@bright.net>
Source record: 23139

Just curious, had the rig ever been used mobile? I had my TS690 mobile for a while and saw how badly it shook around and pulled it out and put it back into home use, sitting on a nice and stable table with no astronaut crippling g-loads. I like the rig too much to have kept beating it up in the truck. I bought a much smaller (thus easier to get solid mounting) Yaesu 857 for the truck and it seems to fair much better than the large (heavy) Kenwood did in that environment...

Scott
N0EDV

Robert Casey wrote:

> Was Q37's leads to the IF circuit board. Somehow it
> developed circular cracks in the solder joint from
> the leads to the board. It kept the rig from going
> into transmit. It was just a control line level
> shifter or inverter.
>
> Oddly enough I had just finished installing a new
> wire dipole strung between trees on my house's
> quarter acre lot. Something vaguely resembling a
> 80 meter dipole with a W2AU balun at the feedpoint.
> I thought that I somehow toasted
> the xmit part of the rig with a bad antenna, but the
> rig has self protection circuits. I don't think bad
> solder joints on a control line transistor would be
> caused by a new antenna.... :-)
>

--
Scott
http://corbenflyer.tripod.com/
Building RV-4
Gotta Fly or Gonna Die

2707. Need copy of Documentation for BK 3020 Sweep Function Generator

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-22 13:01:23 UTC
From: cwolf01@attglobal.net
Message-ID: <dfcb9d69.0409220501.80ba7a9@posting.google.com>
Source record: 23141

I need a copy of the op manual for the BK 3020 Sweep Function Generator.

Please contact me by email if you can help. cwolf01@attglobal.net

Charlie Wolf KD6VIZ

(BK B+K B&K B-K B K)

2708. Re: NEED: Schematics for building a broad band frequency jammer (FM 88M-108M)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-22 16:08:21 UTC
From: nina.p20@gmail.com
Message-ID: <992361df.0409220808.33fe3ace@posting.google.com>
Source record: 23142
Cross-posted to: sci.electronics.basics,sci.electronics.design,alt.radio.pirate,rec.radio.amateur.homebrew,alt.2600

> Are you sure you are about to dispense to someone with a fuckem you
> are gonna break the law and be even stupider than the insane guy?
>
> >Good Luck.
> >Rich

You do like to see "action" aren't you Lady Chatterly ?

> He who sups with the devil has need of a long spoon.

.....or a long dipole antenna, or a long range Tx :)

Anyway, I've stopped to break the law...I haven't got much chance
break it, as the guy got the message very quick and stopped to nag for
three days...
...so I've been rehabilitated....Even I'll be a repentant if you
wish...

Wish you all - all the best :)

With this post I conclude my appearance at the NG

Nina

2709. Re: Schematics for building a broad band frequency jammer (FM 88M-108M)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-22 16:13:03 UTC
From: Lady Chatterly <kb9bvn@catcher.in.the.rye>
Message-ID: <5f21a2d.b83b68e9@chatterly.adelphia.com>
Source record: 23144
Cross-posted to: sci.electronics.basics,sci.electronics.design,alt.radio.pirate,rec.radio.amateur.homebrew,alt.2600

In article <aLc4d.9965$n16.3985@newsread2.news.atl.earthlink.net>,
"Brian - KB9BVN" <kb9bvn@arrl.net> wrote:
>
>Why don't you just call the cops?
>
>It'll save you the $10,000 the FCC will want to fine you.

Learning to dislike kooks at an early age saves a lot of expense and
aggravation later in life.

--
Lady Chatterly

"OK, I know I've been away for a while, so maybe I missed something.
Is Lady Chatterly a bot?" -- oldami

2710. Re: NEED: Schematics for building a broad band frequency jammer (FM 88M-108M)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-22 16:13:33 UTC
From: Lady Chatterly <p20@catcher.in.the.rye>
Message-ID: <bdb128e.43b5ae6c@chatterly.comcast.com>
Source record: 23145
Cross-posted to: sci.electronics.basics,sci.electronics.design,alt.radio.pirate,rec.radio.amateur.homebrew,alt.2600

In article <992361df.0409220808.33fe3ace@posting.google.com>,
nina.p20@gmail.com (Nina) wrote:
>
>> Are you sure you are about to dispense to someone with a fuckem you
>> are gonna break the law and be even stupider than the insane guy?
>>
>> >Good Luck.
>> >Rich
>
>You do like to see "action" aren't you Lady Chatterly ?
>
>> He who sups with the devil has need of a long spoon.
>
>......or a long dipole antenna, or a long range Tx :)

Don't get insulted, but is your job devoted to spreading ignorance?

>Anyway, I've stopped to break the law...I haven't got much chance
>break it, as the guy got the message very quick and stopped to nag for
>three days...
>....so I've been rehabilitated....Even I'll be a repentant if you
>wish...

Tell Me about your stopped to break the law.

>Wish you all - all the best :)

My sympathies to your mother.

>With this post I conclude my appearance at the NG

Appearances can be deceiving, or in your case, truly disgusting.

>Nina

He who does not know one thing knows another.

--
Lady Chatterly

"OK, I know I've been away for a while, so maybe I missed something.
Is Lady Chatterly a bot?" -- oldami

2711. Re: NEED: Schematics for building a broad band frequency jammer (FM 88M-108M)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-22 16:19:26 UTC
From: Dave VanHorn <dvanhorn@cedar.net>
Message-ID: <-fKdnSSfyKVhOMzcRVn-gg@comcast.com>
Source record: 23143
Cross-posted to: sci.electronics.basics,sci.electronics.design,alt.radio.pirate,rec.radio.amateur.homebrew,alt.2600

While I never put it on the air, I did experiment with a wideband FM
transmitter coupled to an AVR chip generating a long fast PN sequence.
Worked pretty much as you'd expect.
Broadband jammers do take a lot of power to be effective.
Everything's permissable, as long as you don't radiate. :)

--
KC6ETE Dave's Engineering Page, www.dvanhorn.org
Microcontroller Consultant, specializing in Atmel AVR

2712. Re: measuring Vgs(off)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-22 16:47:22 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <jna3l0hnojov8kugr1dloa3i97vq0r9n9o@4ax.com>
Source record: 23146
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

Thanks, all, BTW.

On 21 Sep 2004 19:50:22 -0700, Winfield Hill
<Winfield_member@newsguy.com> wrote:

> The multimeters on my bench have infinite input impedance on the 200mV
> scale, although some let you turn on an internal resistor. We can use
> external 10M or 100M if we like, which gives 1pA and 0.1pA measurement
> resolution with a 4.5-digit meter.

I admit I never thought of doing it this way. Incidentally, talking of
very low currents, on P.170 you've reproduced a picture of a static
damaged MOSFET. I assume from the commentary that this one was totally
trashed, but you've stated before that these devices can be partially
blown and still function, albeit to an impaired extent. Could one
feasibly measure any such 'minor damage' (through static) by checking
for picoamp range current leakage across the insulating layer?

> The relevant "subthreshold" formula is Id = k e^(Vgs - Vt), which is
> an exponential equation that clearly shows there's no sudden threshold
> for FET current => negligible. Paul can take a look at AoE page 123,
> and observe the measured gate-voltage to drain current relationship for
> a typical MOSFET, which shows the standard smooth 100 or 150mV/decade
> (p or n-type) gate-voltage change over a wide 7-decade current range.
>
> 1 or 5nA makes no difference? Nope, that apparently small detail makes
> a predictably large 70 to 100mV difference. One must pay attention to
> the specifications in this matter, 1nA, 1uA, whatever - it's a big deal.

Oh bugger.
>
> BTW, as I've pointed out several times, power MOSFET spice models are
> completely wrong in this region, just forget considering their results.

Yes, I think the same caveat applies for simulating FETs - and that's
just in the active region!

--

"What is now proved was once only imagin'd." - William Blake, 1793.

2713. Re: Had to fix my TS440SAT, cracked solder joints on a transistor

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-22 17:59:47 UTC
From: Robert Casey <wa2ise@ix.netcom.com>
Message-ID: <4151BD91.5030008@ix.netcom.com>
Source record: 23147

Scott wrote:
> Just curious, had the rig ever been used mobile? I had my TS690 mobile
> for a while and saw how badly it shook around and pulled it out and put
> it back into home use, sitting on a nice and stable table with no
> astronaut crippling g-loads. I like the rig too much to have kept
> beating it up in the truck. I bought a much smaller (thus easier to get
> solid mounting) Yaesu 857 for the truck and it seems to fair much better
> than the large (heavy) Kenwood did in that environment...
>

I got it used, so I don't know its early history. It was nice
and clean, so I suspect it had not gone mobile. I think that the
circuit board may have been a tad bit short of solder when they
wave soldered it at the factory. Not by much though. It has
always been a home rig when I've had it.

One annoying thing with the service manual is that it has the
schematics of each board, but no diagram of the interconnections
between boards. Other than a high level system block diagram.
I was going to try to back track the "on air" LED to find why
if failed to light, but couldn't find it in the service manual.
Major surgery would be required to trace it out by hand, so
I took another approach. That was to see how far the control
line "RL" signal got thru the various transistors. That's when
I found the bad solder joints.

2714. New program "Not a Trap"

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-22 21:41:04 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cisrhgddu1@sparta.btinternet.com>
Source record: 22998

Extract from program notes.

Program Name: NOTATRAP.exe Author: R.J.Edwards G4FGQ

A TWO-BAND ANTENNA WIRE LOADED WITH AN L & C PARALLEL-TUNED CIRCUIT

The LC parallel-tuned circuit is constructed exactly like an antenna trap. It
is located in the antenna wire and used as L or C loading at 2 other resonant
frequencies. Parallel-tuned circuits have a reactive impedance on either side
of resonance. On the low frequency side there is a +ve inductive reactance. On
the high frequency side there is a -ve capacitative reactance.

The purpose of the LC loading components is to detune the antenna wire from
its natural 1/4-wave resonant frequency. When the loading circuit is behaving
as an inductance the antenna resonant frequency is reduced. When the loading
circuit is behaving as a capacitor the antenna resonant frequency is increased.
The pair of resonant frequencies depend on the LC ratio, on wire length, and
on the location of the LC loading circuit along the wire.

For a given loading location along the wire and a given pair of resonant freq-
encies this program calculates the L and C loading-component values. The pair
of frequencies lie above and below the unloaded resonant frequency of the wire.
The LC circuit behaves as an ordinary trap at its own resonant frequency which,
by experiment, can sometimes be arranged to fall into a third amateur band. But
to calculate such a fortunate coincidence is beyond my elderly patience.

The program has a built in signal source which generates a wide-ranging
testing frequency which can be used to 'measure' the input impedance of the
antenna versus frequency, checking resonant frequencies and other antenna
characteristics.

Download program NOTATRAP from website below and run immediately.

....
Regards from Reg, G4FGQ

For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
.....

2715. Re: NEED: Schematics for building a broad band frequency jammer (FM 88M-108M)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-23 01:19:20 UTC
From: Rich Grise <null@example.net>
Message-ID: <swp4d.5579$Co1.1730@trnddc02>
Source record: 22999
Cross-posted to: sci.electronics.basics,sci.electronics.design,alt.radio.pirate,rec.radio.amateur.homebrew,alt.2600

On Tuesday 21 September 2004 08:04 pm, Lady Chatterly did deign to grace us
with the following:

> In article <P364d.9613$464.6787@trnddc01>,
> Rich Grise <null@example.net> wrote:

>>The facts are, that's as close to a compliment as I'm about to dispense
>>to someone with a "Fuck'em I'm gonna break the law and be even stupider
>>than the insane guy!" attitude.
>
> Are you sure you are about to dispense to someone with a fuckem you
> are gonna break the law and be even stupider than the insane guy?

No, silly, that's the point. I'm _not_ about to dispense a compliment
to a fuzzwit like that, thank you very much.

Regards,
Rich

2716. Re: NEED: Schematics for building a broad band frequency jammer (FM 88M-108M)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-23 01:29:02 UTC
From: Lady Chatterly <null@catcher.in.the.rye>
Message-ID: <5a4e1af.0b1bee8b@chatterly.news.east.earthlink.net>
Source record: 23000
Cross-posted to: sci.electronics.basics,sci.electronics.design,alt.radio.pirate,rec.radio.amateur.homebrew,alt.2600

In article <swp4d.5579$Co1.1730@trnddc02>,
Rich Grise <null@example.net> wrote:
>
>On Tuesday 21 September 2004 08:04 pm, Lady Chatterly did deign to grace us
>with the following:
>
>> In article <P364d.9613$464.6787@trnddc01>,
>> Rich Grise <null@example.net> wrote:
>
>>>The facts are, that's as close to a compliment as I'm about to dispense
>>>to someone with a "Fuck'em I'm gonna break the law and be even stupider
>>>than the insane guy!" attitude.
>>
>> Are you sure you are about to dispense to someone with a fuckem you
>> are gonna break the law and be even stupider than the insane guy?
>
>No, silly, that's the point. I'm _not_ about to dispense a compliment
>to a fuzzwit like that, thank you very much.

Does it make you happy to be not about to dispense a compliment to a
fuzzwit like that?

>Regards,
>Rich

Qba'g jbeel, V'z n genvarq cebsrffvbany.

--
Lady Chatterly

"is there someone actually posting as Lady Chatterly, or is this all
some kind of elaborate sock? i'm not getting them." -- ronin

2717. Re: Linear HF amp using 807's

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-23 02:41:59 UTC
From: The Eternal Squire <eternalsquire@comcast.net>
Message-ID: <TYedndiOA_lqqs_cRVn-uA@comcast.com>
Source record: 23001

Speaking of 6146's.... I purchased a dozen of them in near unused
condition from a radio repair shop. How rare or coveted are these
tubes?

The Eternal Squire

mcalhoun@ksu.edu wrote:
> ...>nostalgic about the boxes of old 807's they had sitting around waiting
>
>>to be used - has anyone built a HF linear using these things - and not
>>QRP or max 100watts ....
>
>
> I can't find it right now, but somewhere I have an article from a ham
> magazine that used TEN of them (actually 1625's), with their filaments
> series'd across the 120-volt mains and their outputs paralleled on one
> of the lower ham bands.
>
> I, too, have been saving them and will find the round tuit someday.
>
> --Myron.

2718. Re: Linear HF amp using 807's

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-23 04:35:10 UTC
From: Clarence <No@No.Com>
Message-ID: <2os4d.427$JG2.166@newssvr14.news.prodigy.com>
Source record: 23002

"The Eternal Squire" <eternalsquire@comcast.net> wrote in message
news:TYedndiOA_lqqs_cRVn-uA@comcast.com...
> Speaking of 6146's.... I purchased a dozen of them in near unused
> condition from a radio repair shop. How rare or coveted are these
> tubes?
>
> The Eternal Squire
>
> mcalhoun@ksu.edu wrote:
> > ...>nostalgic about the boxes of old 807's they had sitting around waiting
> > >
> >>to be used - has anyone built a HF linear using these things - and not
> >>QRP or max 100watts ....
> > >
> > >
> > > I can't find it right now, but somewhere I have an article from a ham
> > > magazine that used TEN of them (actually 1625's), with their filaments
> > > series'd across the 120-volt mains and their outputs paralleled on one
> > > of the lower ham bands.
> > >
> > > I, too, have been saving them and will find the round tuit someday.
> > >
> > > --Myron.

I got 200 pulls, all tested good, for $0.25 each, so far I've used 12.

2719. Re: NEED: Schematics for building a broad band frequency jammer (FM 88M-108M)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-23 11:37:50 UTC
From: "Watson A.Name - \"Watt Sun, the Dark Remover\"" <NOSPAM@dslextreme.com>
Message-ID: <10l5dd8n1ohk2c@corp.supernews.com>
Source record: 23003
Cross-posted to: sci.electronics.basics,sci.electronics.design,alt.radio.pirate,rec.radio.amateur.homebrew,alt.2600

"Dave VanHorn" <dvanhorn@cedar.net> wrote in message
news:-fKdnSSfyKVhOMzcRVn-gg@comcast.com...
> While I never put it on the air, I did experiment with a wideband FM
> transmitter coupled to an AVR chip generating a long fast PN sequence.
> Worked pretty much as you'd expect.
> Broadband jammers do take a lot of power to be effective.
> Everything's permissable, as long as you don't radiate. :)

There is this schematic of a tracking transmitter at Antoon's website at UOguelph. It puts out a pulse of RF every second or three. What you do is change the capacitor in the pulse gen so that it puts out pulses at high audio freqs. If the pulses are sharp, it will be heard over many channels of the band.

Another jammer is a buzzer with a dipole antenna of two wires a few feet long. But this jammer makes noise and is easily discovered.

> --
> KC6ETE Dave's Engineering Page, www.dvanhorn.org
> Microcontroller Consultant, specializing in Atmel AVR

2720. looking for 1958 QST magazine

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-23 18:08:56 UTC
From: Wayne Letourneau <letourneau@wiktel.com>
Message-ID: <YiE4d.168$AU4.8280@news7.onvoy.net>
Source record: 23004

If anyone has one theu would like to sell, let me know

2721. 1958 JULY QST magazine

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-23 20:16:24 UTC
From: Wayne Letourneau <letourneau@wiktel.com>
Message-ID: <saG4d.171$AU4.8370@news7.onvoy.net>
Source record: 23005

I forgot to say in an earlier post that it was a JULY 1958 QST issue I was looking for.

2722. Re: NEED: Schematics for building a broad band frequency jammer (FM 88M-108M)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-23 20:41:12 UTC
From: Rich Grise <null@example.net>
Message-ID: <lxG4d.9491$Bg5.7478@trnddc07>
Source record: 23006
Cross-posted to: sci.electronics.basics,sci.electronics.design,alt.radio.pirate,rec.radio.amateur.homebrew,alt.2600

On Wednesday 22 September 2004 06:29 pm, Lady Chatterly did deign to grace
us with the following:

> Does it make you happy to be not about to dispense a compliment to a
> fuzzwit like that?
>
Would you like to play a game?

2723. Re: NEED: Schematics for building a broad band frequency jammer (FM 88M-108M)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-23 22:31:47 UTC
From: "Paul Hovnanian P.E." <Paul@Hovnanian.com>
Message-ID: <41534ED3.9E4AF074@Hovnanian.com>
Source record: 23007
Cross-posted to: sci.electronics.basics,sci.electronics.design,alt.radio.pirate,rec.radio.amateur.homebrew,alt.2600

Go to http://www.fcc.gov/ and find the Contacts link. Tell them what
you want and I'm sure they'll be more than happy to send someone out to
help you.

--
Paul Hovnanian mailto:Paul@Hovnanian.com
note to spammers: a Washington State resident

The only tools one needs in life:
WD-40 to make things go and duct tape to make them stop.

2724. Re: NEED: Schematics for building a broad band frequency jammer (FM 88M-108M)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-23 22:48:06 UTC
From: Art <plotsligt@comcast.net>
Message-ID: <6OGdnXs1bOo2z87cRVn-tA@comcast.com>
Source record: 23008
Cross-posted to: sci.electronics.basics,sci.electronics.design,alt.radio.pirate,rec.radio.amateur.homebrew,alt.2600

Maybe just needs to get a good set of noise cancling headphones for his
boombox, then blast it to the max. Ringing in the ears will then cancle all
the reception out.
"Paul Hovnanian P.E." <Paul@Hovnanian.com> wrote in message
news:41534ED3.9E4AF074@Hovnanian.com...
>
> Go to http://www.fcc.gov/ and find the Contacts link. Tell them what
> you want and I'm sure they'll be more than happy to send someone out to
> help you.
>
> --
> Paul Hovnanian mailto:Paul@Hovnanian.com
> note to spammers: a Washington State resident
> --
> The only tools one needs in life:
> WD-40 to make things go and duct tape to make them stop.

2725. Requirements for Signalink SL-1

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-23 23:08:15 UTC
From: fazamy@aol.com
Message-ID: <20040923190815.09347.00001389@mb-m05.aol.com>
Source record: 23009

Before I purchase Signalink's SL- I, need to know about the software that accompanies the product because I have a very old and slow computer. Does anyone know what kind of specs does the software need to run?

Tnx,
KB2AMY

2726. Re: Linear HF amp using 807's

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-24 00:48:59 UTC
From: ablight@alphalink.com.au
Message-ID: <1fc7b362.0409231648.68e36127@posting.google.com>
Source record: 23010

J M Noeding <la8ak@online.no> wrote in message
news:<fu6kk09fmamkg0moctcb4dm0krneev2ivs@4ax.com>...
> On Thu, 16 Sep 2004 07:40:25 -0700, Bill Turner <noway@nohow.com>
> wrote:
>
>
> >
> >The problem with 807's is that having only a 25 watt plate dissipation
> >rating and running a pair in a linear with about 66% efficiency, you're
> >only going to get out about 100 watts. Today's generic transceiver
> >already puts out that much, and if you're looking for an HF "brick" for
> >a QRP rig, solid state is a better way to go.
> >
> >On the other hand, a nostalgia-driven project could be lots of fun.
> >
> >Back in the olden days they were a useful tube, but not so much anymore.
> >Too bad.
>
> the more important limiting parameter for application as ssb linear
> amplifier is max cathode current.
>
> It could be mentioned that 4-65 has the same max PEP input as 4-125
> because the cathodes are the same
>
> -jm
> ---
> J. M. Noeding, LA8AK, N-4623 Kristiansand
> http://home.online.no/~la8ak/c.htm

All points noted - I am aware of the limitations of the things,
but.....

4 of them in // should be capable of 200 watts output - yep, not QRO
but a 3db improvemnet over the 100 watts of the typical modern HF
radio. The G2DAF circuit looks interesting - simple, robust, forgiving
- and VK4YE's work on matching input impedance to a modern 50R HF
radio sems to solve the drive mismatch impedance problem.

So, will stuff around and experiment - it should be a good junkbox
project - as a monobander would be relatively simple to construct -
dirt cheap, a learning experience, and as numerous people have noted,
there are THOUSANDS of 807's in junk boxes all round the world, just
eagerly waiting to be used again.......

Thanks to all who posted,

Andrew VK3BFA

2727. Re: New program "Not a Trap"

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-24 06:39:29 UTC
From: PaoloC <ollollo@hotpop.com>
Message-ID: <2rhtorF199s5vU1@uni-berlin.de>
Source record: 23011

Reg Edwards wrote:

> A TWO-BAND ANTENNA WIRE LOADED WITH AN L & C PARALLEL-TUNED CIRCUIT

First of all, Reg, thank you for another simple and useful piece of software!

> The LC circuit behaves as an ordinary trap at its own resonant
> frequency which, by experiment, can sometimes be arranged to fall
> into a third amateur band. But to calculate such a fortunate
> coincidence is beyond my elderly patience.

This comment and some test run of "Not a Trap" intrigued me. I own a 9m fiberglass fishing rod, which I can now transform in a two-band no-tune antenna (ie 40m and 20m). Adding a third band would be really cool.

(I originally thought of using your VERTLOAD program to build a two-band vertical, where the coil behaves as a RF high-impedance and the lower "half" of the radiator is 1/4 wavelength at a higher frequency.)

From a software point of view a little auto-optimization is needed, which I am about to describe. I would be most grateful if you can either write a notatrap2 or show me the way to produce such an optimization software (I need formulas for computing L and C :-)).

The algorithm.

The user enters: maximum available height, wire diameter, minimum and maximum frequency, as now.
Then, instead of L-C height, the user enters the desired "bonus" frequency. The order of magnitude of frequencies must obviously be in increasing order:
- minimum (ie 7.030 MHz)
- maximum (ie 14.060 MHz)
- bonus (ie 28.060 MHz)

Given the 1/4 wavelength at the bonus frequency, the software computes the L-C height, which is fixed. Then the optimization begins.

Starting from the maximum allowable height the software reduces step-by-step (user defined?) the lenght of the upper part. At each step the following are recomputed:
- L for minimum freq
- C for maximum freq
- LC self-resonant freq
If the latter is equal/close enough (user defined?) to the bonus frequency, optimization stops and results are shown.

Then user can shorten/lengthen the rod in order to fine tune the bonus point of resonance.

Did I miss something in the algorithm?

72/73 de
Paolo IK1ZYW

2728. PA 100W amplifier - help me

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-24 09:37:01 UTC
From: Mario Bros <rocco.calbe@tin.it>
Message-ID: <1VR4d.299334$OR2.13672993@news3.tin.it>
Source record: 23012

I have acquired on Ebay an amplifier HF ITT 12v 100W with written following:

600942-536-001
LPA ISSB
MADE IN USA

Someone knows to that apparatus belongs?

It is possible to find the schematic diagram?

Use one 2N4427 + (2xEGC3338) + 2xMRF455

Thank you

IK6GQC Rocco

2729. Re: New program "Not a Trap"

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-25 02:08:29 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cj2jut$hr2$1@hercules.btinternet.com>
Source record: 23013

"PaoloC" wrote > Reg Edwards wrote:
>
> > A TWO-BAND ANTENNA WIRE LOADED WITH AN L & C PARALLEL-TUNED CIRCUIT
>
> First of all, Reg, thank you for another simple and useful piece of
> software!
>
> > The LC circuit behaves as an ordinary trap at its own resonant
> > frequency which, by experiment, can sometimes be arranged to fall
> > into a third amateur band. But to calculate such a fortunate
> > coincidence is beyond my elderly patience.
>
> This comment and some test run of "Not a Trap" intrigued me. I own a 9m
> fiberglass fishing rod, which I can now transform in a two-band no-tune
> antenna (ie 40m and 20m). Adding a third band would be really cool.
>
> (I originally thought of using your VERTLOAD program to build a two-band
> vertical, where the coil behaves as a RF high-impedance and the lower
> "half" of the radiator is 1/4 wavelength at a higher frequency.)
>
> From a software point of view a little auto-optimization is needed,
> which I am about to describe. I would be most grateful if you can either
> write a notatrap2 or show me the way to produce such an optimization
> software (I need formulas for computing L and C :-)).
>
> The algorithm.
>
> The user enters: maximum available height, wire diameter, minimum and
> maximum frequency, as now.
> Then, instead of L-C height, the user enters the desired "bonus"
> frequency. The order of magnitude of frequencies must obviously be in
> increasing order:
> - minimum (ie 7.030 MHz)
> - maximum (ie 14.060 MHz)
> - bonus (ie 28.060 MHz)
>
> Given the 1/4 wavelength at the bonus frequency, the software computes
> the L-C height, which is fixed. Then the optimization begins.
>
> Starting from the maximum allowable height the software reduces
> step-by-step (user defined?) the lenght of the upper part. At each step
> the following are recomputed:
> - L for minimum freq
> - C for maximum freq

> - LC self-resonant freq
> If the latter is equal/close enough (user defined?) to the bonus
> frequency, optimization stops and results are shown.
>
> Then user can shorten/lengthen the rod in order to fine tune the bonus
> point of resonance.
>
> Did I miss something in the algorithm?
>
==========
Hello Paolo,

The resonannt frequency of the LC tuned circuit, the trap, is calculated by the program and displayed on the screen.

The only way of putting the trap's resonant frequency into an amateur band is to experiment and vary the wire overall length, and/or the location of of the trap along the wire until you have it where you want it.

I think it is impossible to have a program which allows all three frequencies to be entered, plus the lengths of the two wires, which then calculates the values of L and C. There are too many variables. And before writing the program all the simultaneous equations have to be worked out and solved using pencil and paper.

The program is really required to simulate the actions of somebody who keeps pruning both wires, climbs up and down the ladder, and varies the values of L and C hundreds of times. That is the best optimisation procedure. ;o)

Another disadvantage - the length of wire from the transmitter end of the wire to the location of the trap will NOT be a 1/4-wavelength at the trap resonant frequency as is usual for trapped antennas.

You will always need a tuner because the antenna's feedpoint impedance varies so much between one band and another. It is not sufficient just to have the antenna at resonance.

Reg, G4FGQ

2730. Re: Not homebrew -- but can u recommend a rig for Peace Corps volunteer

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-25 03:02:51 UTC
From: "Michael St. Angelo" <mstangelo@comcast.net>
Message-ID: <c-udneUaOYxMQsncRVn-sg@comcast.com>
Source record: 23014

I'd stay away from tube gear. The switches and tube sockets may be intermittend after all these years and it's impossible finding some of the replacement tubes. In addition, the analog local oscillators will drift in the heat and humidity.

I'd recommend the latest generation of transceivers that emplou DDS/PLL synthesizers. If you require 100watt transmit power, I'd look at the Yaesu FT-897 or FT-857. They have moderate receive current consumption and the 897 will run from internal batteries (with 20 watts output). In addition, they operate 6 M, 2M and 70 cM.

If 10 watts will suffice. I'd look at the ICOM IC-703.

Put them through their paces before you travel with them. The 703 has problems with the driver stages failing; get the bugs fixed under warranty before traveling.

These are Amateur radio transceivers and I'm assuming you have a license and will get a reciprocal license for the country you intend to operate from.

Which country will you be working in? Good luck.

Regard's

Mike N2MS

2731. Re: New program "Not a trap"

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-25 15:29:42 UTC
From: Brian Anthony Farrelly <afarrell@online.no>
Message-ID: <E9g5d.9049$WW4.141512@news4.e.nsc.no>
Source record: 23015

Reg and Paolo,

you would be interested in www.arrl.org/qex/Buxton.pdf which is an article
about
Dominant-Element-Principle Loaded Dipoles.

Brian, LA0DG

2732. Re: New program "Not a trap"

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-25 18:11:52 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cj4cd8sep1@sparta.btinternet.com>
Source record: 23016

```
> you would be interested in www.arrl.org/qex/Buxton.pdf which is an article
> about
> Dominant-Element-Principle Loaded Dipoles.
>
> Brian, LA0DG
>
==================================

Brian, thank you for drawing my attention to this article of which I had no
idea that such a detailed and beautifully written amount of work existed.
Following further study I may communicate directly with the author. It is
indeed a work of art!
---
Reg
```

2733. Re: New program "Not a trap"

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-25 19:14:59 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cj4g3j$1g3$1@titan.btinternet.com>
Source record: 23017

"Reg Edwards" wrote
>
> Brian, thank you for drawing my attention to this article of which I had
no
> idea that such a detailed and beautifully written amount of work existed.
> Following further study I may communicate directly with the author. It is
> indeed a work of art!

==========

Brian, It constantly occurs to me that but for the common English Language
our brief communication would very likely not have taken place. I am
certainly not bragging about the English Language. It's just that I realise
I am very fortunate in having being born into it. I have a smattering of
French but by chance I have never visited that sensible country to improve
upon it. The English are lazy.

To ease the present terrible state of international relations (Armageddon is
upon us) should not the Western world introduce Chinese and Hindu into their
primary schools as next in importance to arithmetic?

Arithmetic, the pure language of logic, such as Wavelength = 300 /
Frequency, of course, predominates.

Reg, G4FGQ

2734. Car Radios: Why is the reception so good...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-26 13:46:09 UTC
From: Proctologically Violated<redacted> <physical@erols.com>
Message-ID: <4156c821$0$4034$61fed72c@news.rcn.com>
Source record: 23018

as compared to my home radios/stereos?

All--

Have wondered for years why this is so--almost w/o exception,
on both AM/FM. On the car NGs, it was suggested that my house was blocking
signals, and that the metallic car acted as a big antenna. Neither seems
plausible, as my car next to the shop radio (which is terrible) still gets
good reception, and that if the metal in a car were so good, you wouldn't
need a car antenna.
I'm thinking it's the actual electronics. Any
opinions/explanations?

Mr. P.V.'d
formerly Droll Troll

2735. Re: Car Radios: Why is the reception so good...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-26 14:17:12 UTC
From: Uncle Peter <radioconnectionNO@cox.netSPAM>
Message-ID: <HbA5d.298202$Lj.253385@fed1read03>
Source record: 23019

Car radios (at least back in the tube era) were generally superior
to most inexpensive home radios. They included a tuned RF
stage which gave them the extra ooomph. The tube auto radios
had the antenna as part of the tuned circuit (coupled to the
high impedance point of the RF stage), so they worked somewhat
like a tuned active antenna.

Peter

"Proctologically Violated��" <physical@erols.com> wrote in message
news:4156c821$0$4034$61fed72c@news.rcn.com...
> as compared to my home radios/stereos?
>
> All--
>
> Have wondered for years why this is so--almost w/o exception,
> on both AM/FM. On the car NGs, it was suggested that my house was
blocking
> signals, and that the metallic car acted as a big antenna. Neither seems
> plausible, as my car next to the shop radio (which is terrible) still gets
> good reception, and that if the metal in a car were so good, you wouldn't
> need a car antenna.
> I'm thinking it's the actual electronics. Any
> opinions/explanations?
> ----------
> Mr. P.V.'d
> formerly Droll Troll
>
>

2736. Re: Car Radios: Why is the reception so good...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-26 15:39:17 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <FoB5d.113972$KU5.23155@edtnps89>
Source record: 23020

Behold, Proctologically Violatedï¿½ï¿½ signalled from keyed 4-1000A filament:

> as compared to my home radios/stereos?

All car radio's use an actual antenna to receive signals. Many home
stereo's don't even have a connection for an external antenna
anymore....they're mostly just vapourware.

--
Gregg t3h g33k
"Ratings are for transistors....tubes have guidelines"
http://geek.scorpiorising.ca

2737. cw adapter htx-10

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-26 18:04:32 UTC
From: "G. Doughty" <ki4bbl@cox.net>
Message-ID: <TwD5d.383$TY2.2@lakeread04>
Source record: 23021

Hello all,

I have the schematic for this altoids project but there is no parts list that I can find. I can build them but getting parts is different. My last project was a rockmite 20. I was successful but this project is only by schematic. If anyone knows anything about this thing, can you help me out. I have a feeling once I get started, I may have quite a few questions. Is a relay a relay a relay? K1 is a relay but does it have to be what he suggests? I will probably get that relay but I am trying to learn as well. Thanks so much.

--
73
G. Doughty
ki4bbl AT cox DOT net

2738. Re: Car Radios: Why is the reception so good...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-26 18:12:47 UTC
From: R J Carpenter <rcarpen@erols.com>
Message-ID: <41571492$0$4045$61fed72c@news.rcn.com>
Source record: 23024

"Proctologically Violated��" <physical@erols.com> wrote in message
news:4156c821$0$4034$61fed72c@news.rcn.com...
> as compared to my home radios/stereos?
>
> Have wondered for years why this is so--almost w/o exception,
> on both AM/FM.

Since cars drive through all the poor reception areas as well as good places, there is a strong incentive to build their radios to have good performance. These days the weak-signal performance of the AM side of car radios is degraded, since RF noise levels are so high. It's cheaper to degrade the radio than to further suppress the noise the car makes - and anyway power lines, etc., are pretty noisy. But the FM sections are generally very good.

The ordinary plastic-box home radio or all-in-one system has a VERY cheap radio. Your expensive hi-fi probably has a good FM section, but most are very poor on AM.

It's all a matter of design and perception of what the listener will tolerate. No sense building a wondrous radio if most buyers don't care and wouldn't want to pay what it would cost..

2739. Re: cw adapter htx-10

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-26 19:02:27 UTC
From: "G. Doughty" <ki4bbl@cox.net>
Message-ID: <anE5d.585$TY2.164@lakeread04>
Source record: 23022

Also,
I am looking now at digi-key.com and am wondering, how many watt resistors I will need. Wow, a lot to learn.

Thanks

"G. Doughty" <ki4bbl@cox.net> wrote in message news:TwD5d.383$TY2.2@lakeread04...
> Hello all,
>
> I have the schematic for this altoids project but there is no parts list
> that I can find. I can build them but getting parts is different. My last
> project was a rockmite 20. I was successful but this project is only by
> schematic. If anyone knows anything about this thing, can you help me out.
> I have a feeling once I get started, I may have quite a few questions. Is a
> relay a relay a relay? K1 is a relay but does it have to be what he
> suggests? I will probably get that relay but I am trying to learn as well.
> Thanks so much.
>
> --
> 73
> G. Doughty
> ki4bbl AT cox DOT net
>
>

2740. Getting RF amp stable

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-26 19:11:07 UTC
From: meara.london@virgin.net
Message-ID: <22f6e3ee.0409261111.60130e9e@posting.google.com>
Source record: 23023

I've built a little RF amp (for 20 meters) using a single MTP3055V
MOSFET.
Class AB, binocular core RF transformer in the output. I drive it
with
a homebrew 20 meter DSB rig.

Here is the problem: The amp works fine IF I take the low pass filter
out of the circuit. I'm using a groundplane antenna with a T network
tuner.
I can adjust it to make it look like 50 ohms. Without the low pass
filter,
I get a very nice clean output (looks good on a scope, and SWR is low,
so I don't think it is putting out spurs or harmonics).

But if I include the LP filter in the circuit, the amp takes off,
turning
into an 18 Mhz oscillator!

I checked the filter with a sig generator. The cutoff freq is where
it is
supposed to be.

I've had this kind of problem before, with other amps.

Any suggestions?

73 de Bill M0HBR CU2JL N2CQR
http://planeta.clix.pt/n2cqr

2741. K9YA Telegraph eZine

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-26 19:39:59 UTC
From: K9YA Telegraph <k9ya@qsl.net>
Message-ID: <jWE5d.12861$QU3.4828@newssvr31.news.prodigy.com>
Source record: 23025

The K9YA Telegraph is a FREE, general interest Ham Radio newsletter/e-zine.
It's in full color, contains NEW articles and is delivered to your computer
monthly as a PDF attachment to e-mail.

To download a sample issue or subscribe, visit the Web site at
http://www.qsl.net/k9ya

2742. Re: President George Bush Assasinated <--- VIRUS

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-26 19:48:25 UTC
From: Bob <nowhere@nospam.org>
Message-ID: <Q1F5d.2266$MD5.110949@news20.bellglobal.com>
Source record: 23027
Cross-posted to: rec.radio.amateur,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

This was a virus.

2743. Re: K9YA Telegraph eZine

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-26 20:02:17 UTC
From: "Dan Richardson"
Message-ID: <5t7el0lg4o16g8er3sg88sikc3j2el84lc@4ax.com>
Source record: 23026

On Sun, 26 Sep 2004 19:39:59 GMT, "K9YA Telegraph" <k9ya@qsl.net>
wrote:

>To download a sample issue or subscribe, visit the Web site at
>http://www.qsl.net/k9ya

I sure it must be nice, but qsl.net is so slow I gave up, after five
minutes, of trying to download it - and I've have high speed cable.

73
Danny, K6MHE

2744. Re: cw adapter htx-10

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-26 20:32:35 UTC
From: ehsjr@bellatlantic.net
Message-ID: <DHF5d.402$va.164@trndny03>
Source record: 23028

G. Doughty wrote:

>Hello all,
>
>I have the schematic for this altoids project but there is no parts list
>that I can find. I can build them but getting parts is different. My last
>project was a rockmite 20. I was successful but this project is only by
>schematic. If anyone knows anything about this thing, can you help me out.
>I have a feeling once I get started, I may have quite a few questions. Is a
>relay a relay a relay? K1 is a relay but does it have to be what he
>suggests? I will probably get that relay but I am trying to learn as well.
>Thanks so much.
>
>--
>73
>G. Doughty
>ki4bbl AT cox DOT net
>
>
>
>
All relays are not the same. If the adapter is the one shown at
http://www.qsl.net/n5ib/page2.html
then it is a 2 pole 12 volt relay. You should use the one he
used, until you are comfortable that you know enough to
figure out a different one. A different relay is a good idea,
as the circuit uses power from the htx 10 and the relay
consumes most of it. A different relay that uses less power
would be a better choice. The one on the web site uses
.72 watts.

But, since you did not post a reference to the schematic,
we can only guess that it is the one at the site mentioned
above. Next time, post a url where we can see the schematic
you are using.

On your question about resistors - 1/4 watt will be fine.

2745. Re: President George Bush Assasinated

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-26 20:43:58 UTC
From: Steve <lafayetteradio4@optonline.net>
Message-ID: <41572B20.6EDABA82@optonline.net>
Source record: 23029
Cross-posted to: rec.radio.amateur,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

OH PLEASE, YET ANOTHER VIRUS ATTEMPT.
YOU MUST THINK WE ARE ASSHOLES.
LET ME GUESS, KERRY NEXT WEEK??

news@CNN.com wrote:

> Early this morning two CNN Journalists discovered the CCTV footage that will shock the world. At 3.29am President George Bush was shot dead by an Islamic Militant suspected of working for Al-Qaida. As yet to be released to the nation due to the governments concerns over national Security, CNN has decided to inform the public of this terrible event. A short CCTV clip as evidence of this tragedy has been posted here and there will be more updates to follow as the news filters through.
>
> Name: CCTV-Assasination.zip
> CCTV-Assasination.zip Type: Zip Compressed Data (application/x-zip-compressed)
> Encoding: x-uuencode

2746. Re: Car Radios: Why is the reception so good...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-26 21:09:51 UTC
From: DRGrok@munged.net
Message-ID: <41572dac$0$4027$61fed72c@news.rcn.com>
Source record: 23030

In article <HbA5d.298202$Lj.253385@fed1read03>, " Uncle Peter"
<radioconnectionNO@cox.netSPAM> wrote:
>Car radios (at least back in the tube era) were generally superior
>to most inexpensive home radios. They included a tuned RF
>stage which gave them the extra ooomph. The tube auto radios
>had the antenna as part of the tuned circuit (coupled to the
>high impedance point of the RF stage), so they worked somewhat
>like a tuned active antenna.
>
>Peter

Another reason was the lower IF -- generally 265 kHz vs. the 455 kHz used in
home sets. This allowed a more selective IF -- smaller bandwidth for the same
Q -- so the adjacent channel interference was cut dow. Some MW [BCB] DXers
would use car radios set up for home use for just that reason.

Dr. G.

>
>"Proctologically Violated��" <physical@erols.com> wrote in message
>news:4156c821$0$4034$61fed72c@news.rcn.com...
>> as compared to my home radios/stereos?
>>
>> All--
>>
>> Have wondered for years why this is so--almost w/o exception,
>> on both AM/FM. On the car NGs, it was suggested that my house was
>blocking
>> signals, and that the metallic car acted as a big antenna. Neither seems
>> plausible, as my car next to the shop radio (which is terrible) still gets
>> good reception, and that if the metal in a car were so good, you wouldn't
>> need a car antenna.
>> I'm thinking it's the actual electronics. Any
>> opinions/explanations?
>> ----------
>> Mr. P.V.'d
>> formerly Droll Troll
>>
>>
>
>

2747. Re: Getting RF amp stable

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-26 21:32:13 UTC
From: nx7u@arrl.net
Message-ID: <41573489.13520550@news.west.cox.net>
Source record: 23031

Unlike gain, stability is a DC-to-daylight phenomenon.
Meaning...the LPF presents the "Right" impedance to the amp output in the passband, but consider: the LPF is a gross mismatch in the stopband. Evidently the output of the amp is only conditionally stable above the LPF cutoff, and the stopband impedance of the LPF lies in the unstable region.
This kind of thing can be quite common when not considering stability across all possible frequencies that the amp has a gain>1.

On 26 Sep 2004 12:11:07 -0700, meara.london@virgin.net (Bill N2CQR MOHBR) wrote:

>I've built a little RF amp (for 20 meters) using a single MTP3055V
>MOSFET.
>Class AB, binocular core RF transformer in the output. I drive it
>with
>a homebrew 20 meter DSB rig.
>
>Here is the problem: The amp works fine IF I take the low pass filter
>out of the circuit. I'm using a groundplane antenna with a T network
>tuner.
>I can adjust it to make it look like 50 ohms. Without the low pass
>filter,
>I get a very nice clean output (looks good on a scope, and SWR is low,
>so I don't think it is putting out spurs or harmonics).
>
>But if I include the LP filter in the circuit, the amp takes off,
>turning
>into an 18 Mhz oscillator!
>
>I checked the filter with a sig generator. The cutoff freq is where
>it is
>supposed to be.
>
>I've had this kind of problem before, with other amps.
>
>Any suggestions?
>
>73 de Bill M0HBR CU2JL N2CQR
>http://planeta.clix.pt/n2cqr

2748. Re: Getting RF amp stable

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-26 23:47:44 UTC
From: nospam@nouce.bellatlantic.net
Message-ID: <sukel05rpc06839l3lugnb8rm5av2lplbr@4ax.com>
Source record: 23032

On 26 Sep 2004 12:11:07 -0700, meara.london@virgin.net (Bill N2CQR MOHBR) wrote:

>Here is the problem: The amp works fine IF I take the low pass filter
>out of the circuit. I'm using a groundplane antenna with a T network
>tuner.
>I can adjust it to make it look like 50 ohms. Without the low pass
>filter,
>I get a very nice clean output (looks good on a scope, and SWR is low,
>so I don't think it is putting out spurs or harmonics).

Suggestion, try a low pass to the antenna and a highpass to a 50ohm load. then the amp[sees 50 ohms for all loads and also the high pass section will absorb harmonics. The pow pass and the highpass share a common port (the one looking toward the amp). This is documented in EMDRF and other places.

I'd also look at the layout and maybe try loading the drain choke with a resistor in the 40-100ohm range. The choke may be resonant at some nearby frequency.

One of the problems with MOS power FETs is there is substantial drain to gate capacitance and if the gate is not loade or the drain enough results and feedback can be problematic. You can also try loading the gate to ground with a resistor in series with a cap (try 50 ohms and .01uf) or a series combo of 100ohms and .01uf from drain to gate to add negative feedback.

Allison

2749. Are there any good EE/Ham programs for the Pocket PC?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-27 04:59:26 UTC
From: "Bob D." <bobmgtd@insightbb.com>
Message-ID: <O6N5d.31479$He1.12162@attbi_s01>
Source record: 23033

Anything good out there? I tried a couple programs from Handango, and they stunk on ice!

Bob D.

2750. wierdass brickwall angle or amplitude filter, could it be useful to hams?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-27 06:47:29 UTC
From: The Eternal Squire <eternalsquire@comcast.net>
Message-ID: <CsCdne-ibL8dKsrcRVn-sA@comcast.com>
Source record: 23034

Hi,

I've been playing with a circuit that I believe has some
potential, the lineup is as follows.

I'm turning an 0.5V DC offset, 0.5V audio signal at
1000 hz to modulate an RF 5V VCO where 0V->1Mhz, and 1V->2Mhz
The VCO drives a switched capacitor cell (1000pf) to create a
simulated resistance. This simulated resistance is the top
resistor for a series voltage divider, the bottom resistor
of which is 1M.

I send 20V to the voltage divider, the output of the voltage
divider is sent to a low pass filter to retrieve the audio
signal, in millivolts, with a slight DC component.

```
* C:\Program Files\LTC\SwCADIII\Draft1.asc
R3 N005 0 1e6
C1 N004 N005 1000p
V7 N006 N008 SINE(0.5 0.5 1000)
S4 N003 N004 N002 N001 MYSW
S2 0 N004 N001 N002 MYSW
R2 N001 0 1e12
V1 N003 0 20V
A1 N006 N007 0 0 0 0 N010 0 MODULATOR space=1e6 mark=2.2e6
V2 N007 N008 5V
R1 N009 N005 1000
C2 N009 0 1ï¿½
R4 N008 0 1e12
R5 N002 N010 1000
C3 N002 0 330p
.tran 0 .001 0 .01
.model MYSW SW(Ron=1e-12 Roff=1e12 Vt=1.0 Vh=0)
.backanno
.end
```

There's at least a couple amazing things about this circuit:

1) If I adjust the top frequency in the VCO slightly, I have
a DC reading frequency meter. If I scale the VCO and DC output
correctly I could read 2.100 to 2.150 Mhz reading as .100 to .150
Volts, and so can display frequency digitally without needing the
expense of a frequency counter, only a cheap DMM module.

2) If I place an RF filter between the VCO and the switched
capacitor, I can decide what range of angles I want the 1000hz

audio signal to appear.

For example, if I have a lowpass RC
filter of R=1000 Ohm and C=330 pf, then only that portion of
the 1000 hz signal for a small range of angle surrounding the
negative peak of the input will appear on the output.

If I have use a highpass filter instead, I will eliminate the
entire signal except for the angles surrounding the positive
peak.

3) Suppose I use an arbitrary voice signal instead of the 1000hz
tone. I could use a lowpass filter to eliminate portions of the
signal going above an arbitrary voltage, meaning that I have the
beginnings of an AGC control or noise blanker. I could use a
pass filter to eliminate portions of the signal going below an
arbitrary voltage, meaning that I can eliminate an arbitrary portion
of the noise floor.

The only circuit I am aware of that has properties remotely similar
to this is an FM discriminator, and I think I am going into unknown
territory here...

Opinions?

The Eternal Squire

(yes, I have a call, but I prefer my privacy)

2751. Re: Car Radios: Why is the reception so good...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-27 10:20:22 UTC
From: Proctologically Violated�� <physical@erols.com>
Message-ID: <4157e966$0$4053$61fed72c@news.rcn.com>
Source record: 23035

```
Appreciate the, uh, feedback. It's sort of as I thought.
Altho I also think it's a CableTV conspiracy.
Now, if I could find a car radio w/ a pre-amp output, I'd just
plug it in to my crappy stereo's aux. input!
---------------------------
Mr. P.V.'d
formerly Droll Troll
```

"Proctologically Violated��" <physical@erols.com> wrote in message
news:4156c821$0$4034$61fed72c@news.rcn.com...
> as compared to my home radios/stereos?
>
> All--
>
> Have wondered for years why this is so--almost w/o exception,
> on both AM/FM. On the car NGs, it was suggested that my house was
blocking
> signals, and that the metallic car acted as a big antenna. Neither seems
> plausible, as my car next to the shop radio (which is terrible) still gets
> good reception, and that if the metal in a car were so good, you wouldn't
> need a car antenna.
> I'm thinking it's the actual electronics. Any
> opinions/explanations?
> ---------------------------
> Mr. P.V.'d
> formerly Droll Troll
>
>

2752. Re: New program "Not a trap"

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-27 11:00:50 UTC
From: PaoloC <ollollo@hotpop.com>
Message-ID: <2rqa6nF1c3f7iU1@uni-berlin.de>
Source record: 23036

Brian Anthony Farrelly wrote:

> you would be interested in www.arrl.org/qex/Buxton.pdf which is an article
> about Dominant-Element-Principle Loaded Dipoles.

"Tusen tack" Brian for the link!

That will be a good reading before falling asleep and dream, once again,
of antennas :-)

73,
Paolo IK1ZYW

PS, BTW, I have managed to design a 3-band vertical using NOTaTRAP. It
needs an ATU/AMU at the base, but it can be done! :-)

2753. Re: cw adapter htx-10

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-27 12:54:54 UTC
From: K7MEM <k7mem@myrealbox.com>
Message-ID: <cj92iu$ei71@cui1.lmms.lmco.com>
Source record: 23037

G. Doughty wrote:
> Hello all,
>
> I have the schematic for this altoids project but there is no parts list
> that I can find. I can build them but getting parts is different. My last
> project was a rockmite 20. I was successful but this project is only by
> schematic. If anyone knows anything about this thing, can you help me out.
> I have a feeling once I get started, I may have quite a few questions. Is a
> relay a relay a relay? K1 is a relay but does it have to be what he
> suggests? I will probably get that relay but I am trying to learn as well.
> Thanks so much.
>
> --
> 73
> G. Doughty
> ki4bbl AT cox DOT net

Here is a link to a PDF file that came from QRP Quarterly. I think it's the
mod you are talking about and explains all the parts.

http://www.qrparci.org/p28.PDF

--
Martin Meserve - K7MEM
http://www.k7mem.150m.com

2754. Re: Car Radios: Why is the reception so good...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-27 13:03:38 UTC
From: K7MEM <k7mem@myrealbox.com>
Message-ID: <cj933b$gi51@cui1.lmms.lmco.com>
Source record: 23038

Proctologically Violatedï¿½ï¿½ wrote:

> Appreciate the, uh, feedback. It's sort of as I thought.
> Altho I also think it's a CableTV conspiracy.
> Now, if I could find a car radio w/ a pre-amp output, I'd just
> plug it in to my crappy stereo's aux. input!
> ----------
> Mr. P.V.'d
> formerly Droll Troll

You may have trouble finding one with a pre-amp output, but most
of the new ones have "line level" outputs. That's what many of them
use to drive those gigawatt bass amplifiers, so they can shake the
rust off of their car.

--
Martin E. Meserve - K7MEM
http://www.k7mem.150m.com

2755. Tube amp questions

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-27 15:08:07 UTC
From: Chris <REMOVEchris1379ME@bigfoot.com>
Message-ID: <r1W5d.11304$gG4.878@newsread1.news.pas.earthlink.net>
Source record: 23039

I am looking at a 10 Meter mobile amp with (2) 6KV6A or 6JG6A tubes. I know these are originally sweep tubes. The input SWR is over 3:1 and I'm thinking that a resistor has been replaced by a wire jumper. There is no series resistance or capacitance between the input and tubes. Adding a 25 Ohm resistor drops the input SWR to 1.5:1 or lower. So what kind of power output should I see on AM and SSB without harming the tubes?

Chris

2756. Newbie ?: I've Built A Simple 1/4 Wave Dipole for 2 Mtrs. Could I Make a1/2 Wave?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-27 16:31:40 UTC
From: WolfMan <WMan@W2GLI.com>
Message-ID: <MfX5d.5593$NS1.2667609@news4.srv.hcvlny.cv.net>
Source record: 23040

I'm Limited To An Antenna On The Front Of My House. Out My Window I Made A Simple !/4 wave Verticle Dipole. Would A 1/2 Wave Simply Be Twice The Length, Using 462/f Mhz, And Would There Be An Advantage With A 1/2 Wave Over a 1/4 Wave ?
Thanks

2757. Yaesu-Musen Group

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-27 16:46:09 UTC
From: gorf44@gmail.com
Message-ID: <dc8c4b8d.0409270846.2632c54a@posting.google.com>
Source record: 23041
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.boatanchors,rec.radio.amateur.policy,rec.radio.amateur.homebrew

Hello,
I would like to invite all fans of Yaesu-Musen to Join our yahoo group.

http://groups.yahoo.com/group/yaesu_musen/

Thank You

73

Jim KU4QW

2758. Re: wierdass brickwall angle or amplitude filter, could it be useful to hams?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-27 17:05:09 UTC
From: k7itm@aol.com
Message-ID: <3200347.0409270905.d5e3244@posting.google.com>
Source record: 23042

The Eternal Squire <eternalsquire@comcast.net> wrote in message
news:<CsCdne-ibL8dKsrcRVn-sA@comcast.com>...
...
> 1) If I adjust the top frequency in the VCO slightly, I have
> a DC reading frequency meter. If I scale the VCO and DC output
> correctly I could read 2.100 to 2.150 Mhz reading as .100 to .150
> Volts, and so can display frequency digitally without needing the
> expense of a frequency counter, only a cheap DMM module.

Seems like a complicated way to do it, and it will have only the
stability of whatever analog components you're using. Why bother,
when a counter can be as cheap, fewer smaller parts, and have crystal
stability? See also various F to V converters if you really must do
it with analog; I think Jim Williams and Bob Pease have both published
some good work on them.

2759. Re: Newbie ?: I've Built A Simple 1/4 Wave Dipole for 2 Mtrs. Could I Make a1/2 Wave?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-27 17:41:58 UTC
From: Richard Heindel <rheindel@neo.rr.com>
Message-ID: <GhY5d.23463$uk1.20065@fe2.columbus.rr.com>
Source record: 23043

Here's a link to a very fine 2M j-pole, easy to build and excellent results.
http://www.arrowantennas.com/j-pole.html
After copying the picture with the element lengths, click on "Instructions"
on the bottom of the page for the rest of the info.
A 1/2 wave will "get out" better than a 1/4 wave.
73
Richard WB8KRN

"WolfMan" <WMan@W2GLI.com> wrote in message
news:MfX5d.5593$NS1.2667609@news4.srv.hcvlny.cv.net...
> I'm Limited To An Antenna On The Front Of My House. Out My Window I Made A
Simple !/4 wave Verticle Dipole. Would A 1/2 Wave Simply Be Twice The
Length, Using 462/f Mhz, And Would There Be An Advantage With A 1/2 Wave
Over a 1/4 Wave ?
> Thanks

2760. Re: Newbie ?: I've Built A Simple 1/4 Wave Dipole for 2 Mtrs. Could I Make a1/2 Wave?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-27 17:52:16 UTC
From: Adrian Brentnall <adrian@ambquality.co.uk>
Message-ID: <kaigl0l1jfkoq80nr9p564623djic32taa@4ax.com>
Source record: 23044

Hi

On Mon, 27 Sep 2004 16:31:40 GMT, "WolfMan" <WMan@W2GLI.com> wrote:

>I'm Limited To An Antenna On The Front Of My House. Out My Window I Made A Simple !/4 wave Verticle Dipole.
> Would A 1/2 Wave Simply Be Twice The Length, Using 462/f Mhz, And Would There Be An Advantage
>With A 1/2 Wave Over a 1/4 Wave ?
>Thanks

I'm not exactly certain what you've built - is each 'leg' of the dipole about 19" - in that case you have a half-wave dipole.

The good thing about a half-wave dipole is that the impedance at the centre of the dipole is a good match for your feeder & radio. If you change the length of the dipole 'legs' then you'll get a poor match at a half-wave per leg - but should get a good match again at 3/4 wavelength - but by that time the thing's getting cumbersome.

If you want something like a dipole but with more gain try a single 'quad' element, or maybe a 'slim-jim' type of antenna....

Alternatively a commercial mobile whip (say a 5/8th) with a suitable ground plane might improve things for you - all depends on what you're trying to achieve...

Regards
Adrian G0THW
Suffolk UK

2761. Re: Yaesu-Musen Group

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-27 18:34:59 UTC
From: Nyssa <Nyssa@concentric.net>
Message-ID: <cj9mgj$b4m@dispatch.concentric.net>
Source record: 23045
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.boatanchors,rec.radio.amateur.policy,rec.radio.amateur.homebrew

Ji M wrote:

> Hello,
> I would like to invite all fans of Yaesu-Musen to Join our yahoo group.
>
> http://groups.yahoo.com/group/yaesu_musen/
>
> Thank You
>
> 73
>
> Jim KU4QW

I like the Yaesu equipment, but don't like the yahoo signup crapola.

I'll have to pass on this invitation unless you can find a hosting site for it that doesn't require all the personal information to participate.

Nyssa - K4HZY (Jr.)

2762. Re: Newbie ?: I've Built A Simple 1/4 Wave Dipole for 2 Mtrs. Could I Make a1/2 Wave?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-27 19:02:33 UTC
From: xpyttl <xpyttl_NOSPAM@earthling.net>
Message-ID: <10lgouhamjrhg3c@corp.supernews.com>
Source record: 23046

"Richard Heindel" <rheindel@neo.rr.com> wrote in message
news:GhY5d.23463$uk1.20065@fe2.columbus.rr.com...

> A 1/2 wave will "get out" better than a 1/4 wave.

Except, of course, for the little detail that Adrian alludes to. Assuming your dipole is 19" on each side, then doubling it to 38" on each side will cause a problem -- the feed point impedance will be wrong. You will need to do some impedance matching in order to get your RF into the antenna in the first place. It's fairly tricky to do that without incurring noticeable loss, but once the RF gets into the antenna, it will work better.

HOWEVER, if you have a dipole whose total length is 19", then doubling it so it is 19" on either side will make it a whale of a lot better. A doublet only 19" long in total is not only too short to resonate, but the feedpoint impedance will prevent most of your RF from ever getting into the antenna in the first place, so the performance of the system will be dismal.

A half-wave dipole, on 2 meters, one 19" on each leg, is a very good antenna, providing you can take the feedline away at approximately right angles to the antenna. Most of the other designs for 2 meters (short of multi-element designs) are actually a little poorer than a dipole except they solve that problem of the feedline coming off at an inconvenient place. Since on FM you want a vertical antenna, a dipole is messy because you usually want the antenna up high so you want the feedline to come up from the bottom. In your case, where you can't get very much height, it may not be much of a problem to bring the feedline out horizontally for a ways.

Now on 2 meters, height is everything. The J-pole Adrian mentions might give you the opportunity to get a little more height, which will make it work a lot better. The J-pole has the feedline coming in at the bottom, just what you want. Although it is mechanically relatively simple to build, some people report that it is very tricky to build right. Others seems to make almost any approximation work well. If you can gain a little more height by building a J-pole, then I would suggest you go ahead and try it. There are all sorts of designs out there, and they are pretty inexpensive to build. But if you are stuck with something close to your window, then then dipole maybe a better deal.

..

2763. Re: Car Radios: Why is the reception so good...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-27 21:22:04 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <cja0ep$1jo$1@newshost.mot.com>
Source record: 23047

#1 reason is the Antenna. #2 cost is king!

Car = antenna on AM & FM

Home radio = Bar antenna on AM and ? what on FM... Sometimes it is the power cord. Sometimes you have a wire to drape over the lamp shade. The aluminum backing on house insulation can provide some attenuation effect, but I'm sure this is less of a factor...it is the primarily the antenna.

Car radios on FM do not have exceptional selectivity as speculated above. The adjacent channel selectivity is only fair and the systems are made to only use alternate channels in any one market, anyway. When you're between markets and have a weak station 200 KHz away from a strong one that you have trouble. If "they" wanted better performance @ home is could be done, just costs $$. Low IF for reduced BW can be done in any radio, but size and Q and frequency are not independent, so lower freq IF means bigger coils and more "R", so "same Q - lower IF" is not that simple.

Did you hear about that guy who changed his name to "They". Interview on pub radio this weekend.

"Proctologically Violated��" <physical@erols.com> wrote in message news:4156c821$0$4034$61fed72c@news.rcn.com...
> as compared to my home radios/stereos?
>
> All--
>
> Have wondered for years why this is so--almost w/o exception,
> on both AM/FM. On the car NGs, it was suggested that my house was blocking
> signals, and that the metallic car acted as a big antenna. Neither seems
> plausible, as my car next to the shop radio (which is terrible) still gets
> good reception, and that if the metal in a car were so good, you wouldn't
> need a car antenna.
> I'm thinking it's the actual electronics. Any
> opinions/explanations?
> ----------
> Mr. P.V.'d
> formerly Droll Troll
>
>

2764. Re: Car Radios: Why is the reception so good...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-27 22:41:33 UTC
From: R J Carpenter <rcarpen@erols.com>
Message-ID: <4158a508$0$4045$61fed72c@news.rcn.com>
Source record: 22949

"Steve Nosko" <suteuve.nosukowicuz@moutouroula.com> wrote in message
news:cja0ep$1jo$1@newshost.mot.com...

> Low IF for reduced BW can be done in any radio, but size and Q
> and frequency are not independent, so lower freq IF means bigger coils and
> more "R", so "same Q - lower IF" is not that simple.

It must be a couple of decades since IF bandwidth depended on "real" IF
coils and their Q. Since then mechanical [ceramic] filters have set the
bandwidth of essentially all consumer radios known to me. OK there are now
a few high-end DSP-based radios. Those too-narrow IFs in today's AM radios
come from ceramic filters, not low freq IF.

2765. Re: Car Radios: Why is the reception so good...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-27 23:40:44 UTC
From: Uncle Peter <radioconnectionNO@cox.netSPAM>
Message-ID: <_x16d.6706$0j.3424@lakeread08>
Source record: 22948

"Steve Nosko" <suteuve.nosukowicuz@moutouroula.com> wrote in message
news:cja0ep$1jo$1@newshost.mot.com...
> #1 reason is the Antenna. #2 cost is king!
>
> Car = antenna on AM & FM
>
> Home radio = Bar antenna on AM and ? what on FM... Sometimes it is the
> power cord. Sometimes you have a wire to drape over the lamp shade. The
> aluminum backing on house insulation can provide some attenuation effect,
> but I'm sure this is less of a factor...it is the primarily the antenna.
>
> Car radios on FM do not have exceptional selectivity as speculated above.
> The adjacent channel selectivity is only fair and the systems are made to
> only use alternate channels in any one market, anyway. When you're
between
> markets and have a weak station 200 KHz away from a strong one that you
have
> trouble. If "they" wanted better performance @ home is could be done,
just
> costs $$. Low IF for reduced BW can be done in any radio, but size and Q
> and frequency are not independent, so lower freq IF means bigger coils and
> more "R", so "same Q - lower IF" is not that simple.
>

Selectivity is easier for FM since they can use inexpensive ceramic filters
instead of IF transformers. Unfortunately, instead of going a few pennies
more for DECENT filters, they use the cheapest they can get away with.

Peter

Pete>

2766. Re: Yaesu-Musen Group

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-28 00:22:19 UTC
From: kelly@dvol.com
Message-ID: <d22b54c3.0409271622.e64399c@posting.google.com>
Source record: 22950
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.boatanchors,rec.radio.amateur.policy,rec.radio.amateur.homebrew

Nyssa <Nyssa@concentric.net> wrote in message news:<cj9mgj$b4m@dispatch.concentric.net>...
> Ji M wrote:
>
> > Hello,
> > I would like to invite all fans of Yaesu-Musen to Join our yahoo group.
> >
> > http://groups.yahoo.com/group/yaesu_musen/
> >
> > Thank You
> >
> > 73
> >
> > Jim KU4QW
>
> I like the Yaesu equipment, but don't like the yahoo signup
> crapola.
>
> I'll have to pass on this invitation unless you can find a
> hosting site for it that doesn't require all the personal
> information to participate.

Except for my e-mail address I fed 'em completely bogus info and their
signup robot swallowed it hook, line and sinker. Any spam tossed my
way as a result of signing up is "handled" by my spam filters.

> Nyssa - K4HZY (Jr.)

w3rv

2767. Re: Tube amp questions

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-28 02:27:13 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <5_36d.122917$KU5.23711@edtnps89>
Source record: 22951

I used one like that, 100W PEP SSB, 40 carrier AM on my CB in the car for
a few years :-)

--
Gregg t3h g33k
"Ratings are for transistors....tubes have guidelines"
http://geek.scorpiorising.ca

2768. Re: K9YA Telegraph eZine

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-28 02:35:14 UTC
From: Rick Karlquist N6RK <richard@karlquist.removethis.com>
Message-ID: <C546d.35898$He1.33812@attbi_s01>
Source record: 22952

Worked fine for me.

N6RK

"> I sure it must be nice, but qsl.net is so slow I gave up, after five
> minutes, of trying to download it - and I've have high speed cable.
>
> 73
> Danny, K6MHE
>

2769. Re: Tube amp questions

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-28 09:32:16 UTC
From: Art <plotsligt@comcast.net>
Message-ID: <KMOdnYQPZ6o1ssTcRVn-iw@comcast.com>
Source record: 22953

CB?? I tend to rmemeber that being slightly over the conditional limit for transmission on those crappy frequencies. QRM+++
"Gregg" <nospam@unknown.org> wrote in message news:5_36d.122917$KU5.23711@edtnps89...
>I used one like that, 100W PEP SSB, 40 carrier AM on my CB in the car for
> a few years :-)
>
> --
> Gregg t3h g33k
> "Ratings are for transistors....tubes have guidelines"
> http://geek.scorpiorising.ca

2770. Re: Tube amp questions

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-28 14:13:03 UTC
From: Chris <REMOVEchris1379ME@bigfoot.com>
Message-ID: <Pje6d.1235$Yr.379@newsread3.news.pas.earthlink.net>
Source record: 22954

Did some testing. 6KV6A - 100W carrier, 6JG6A - 75W carrier. It produces up to a 200W unmodulated carrier. I have no idea of PEP since my old Drake meter can't mesure it. It is however, faily accurate for an unmodulated carrier into a dummy load.

Chris
"Gregg" <nospam@unknown.org> wrote in message
news:5_36d.122917$KU5.23711@edtnps89...
| I used one like that, 100W PEP SSB, 40 carrier AM on my CB in the car for
| a few years :-)
|
| --
| Gregg t3h g33k
| "Ratings are for transistors....tubes have guidelines"
| http://geek.scorpiorising.ca

2771. Tesla toob on E-bay

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-28 16:03:38 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <vo2jl0dt1snktdoktd622a1e8i2ng9d91s@4ax.com>
Source record: 22955
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

Hi all,

what's one of these used for/capable of?

http://cgi.ebay.co.uk/ws/eBayISAPI.dll?ViewItem&category=4660&item=3841804717&rd=1
--

"What is now proved was once only imagin'd." - William Blake, 1793.

2772. Re: Tesla toob on E-bay

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-28 17:25:35 UTC
From: Walter Harley <walterh@cafewalterNOSPAM.com>
Message-ID: <kdKdnd5reZ4MA8TcRVn-vQ@speakeasy.net>
Source record: 22956
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

"Paul Burridge" <pb@notthisbit.osiris1.co.uk> wrote in message
news:vo2jl0dt1snktdoktd622a1e8i2ng9d91s@4ax.com...
> Hi all,
>
> what's one of these used for/capable of?
>
> http://cgi.ebay.co.uk/ws/eBayISAPI.dll?ViewItem&category=4660&item=3841804717&rd=1

Think of it as a switch that turns on when the voltage across it gets high
enough. Used in charging, and abruptly discharging, high-voltage capacitor
banks. See also "ignitron".

2773. Re: Car Radios: Why is the reception so good...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-28 19:04:03 UTC
From: rwalter@engineer.com
Message-ID: <73aa3471.0409281104.55f12fe6@posting.google.com>
Source record: 22957

"R J Carpenter" <rcarpen@erols.com> wrote in message
news:<4158a508$0$4045$61fed72c@news.rcn.com>...
> "Steve Nosko" <suteuve.nosukowicuz@moutouroula.com> wrote in message
> news:cja0ep$1jo$1@newshost.mot.com...
>
> > Low IF for reduced BW can be done in any radio, but size and Q
> > and frequency are not independent, so lower freq IF means bigger coils and
> > more "R", so "same Q - lower IF" is not that simple.
>
> It must be a couple of decades since IF bandwidth depended on "real" IF
> coils and their Q. Since then mechanical [ceramic] filters have set the
> bandwidth of essentially all consumer radios known to me. OK there are now
> a few high-end DSP-based radios. Those too-narrow IFs in today's AM radios
> come from ceramic filters, not low freq IF.

A decent car radio in FM isn't anymore selective or sensitive than a
decent home stereo tuner or receiver in FM. The reason a car radio
sounds cleaner on weaker FM stations has more to do with the stereo
mpx circuit. All car radios have a circuit in the mpx circuit that
blends the stereo-to-mono and mono-to-stereo mode. When manually set
in FM mono mode on a home stereo the SNR is better than in stereo mode
on weak stations. The same holds true for an FM car radio. The only
difference is car radios don't have mono switches. Instead, internal
to the FM car tuner is a circuit that blends the stereo/mono mode so
when the car is in motion and signal strength is varying all over the
place the tuner isn't constantly and abruptly switching between stereo
and mono. Also in this blend circuit is an RC time constant that
"smooths" out the blending action. So somewhere a happy medium is
established and a relative slowly changing SNR takes place slow enough
to be unnoticable. In other words, if far enough from a station the
car radio isn't in 100% stereo mode. It's some where between stereo
and mono. If you're right near the broadcast antenna SNR is best as
well as full stereo separation.

2774. KC8AON Iambic Paddle Project

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-28 20:55:46 UTC
From: haf47@juno.com
Message-ID: <f03bf94f.0409281255.524c2437@posting.google.com>
Source record: 22958

Hello to all:

I just saw the Iambic paddle project of KC8AON and liked it enough to go buy an enclosure to use in making it.

This is a simple paddle that would be great for a newcomer to amateur radio, and would be just dandy for use while hiking, backpacking, etc.

You can see the details in the August 2004 edition of "Bacon Bits" of the Flying Pigs QRP International Club. Find it at http://www.mpna.com/fpqrp/BB0804.pdf

73 de WA2AFD

2775. power output formula

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-28 23:16:26 UTC
From: Ken Scharf <wa2mzeNOTTHIS@bellsouth.net>
Message-ID: <_hm6d.119968$Np2.85853@bignews4.bellsouth.net>
Source record: 22959

I built a small audio power amp to drive my computer
speakers. With one channel driven into 8 ohms the PP
voltage measured at 1khz was 24v before clipping.
With both channels driven it was 20v.

I think the formula for power output was ((vpp/sqr 2)**2)/R
which would give me 36W one channel, and 25w per channel with
both driven.
(not bad for a 2n3055/mj2955 pair running at +- 15 volts)

Is my math correct?

2776. Re: Getting RF amp stable

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-28 23:40:42 UTC
From: Skipp says <skippsayshi@yahoo.com>
Message-ID: <cjcspq$hs0$1@skeeter.ucdavis.edu>
Source record: 22960

Just a 50 cent plug for the yahoo group rfamplifiers. You might join the group and ask your question over there. More than one RF Amp Engineer hangs around to bounce your questions off.

good luck
cheers
skipp

just go to the main www.yahoo.com page, type in yahoo groups. Then type in rfamplifiers and join.

: Bill N2CQR MOHBR <meara.london@virgin.net> wrote:
: I've built a little RF amp (for 20 meters) using a single MTP3055V
: MOSFET.
: Class AB, binocular core RF transformer in the output. I drive it
: with
: a homebrew 20 meter DSB rig.

: Here is the problem: The amp works fine IF I take the low pass filter
: out of the circuit. I'm using a groundplane antenna with a T network
: tuner.
: I can adjust it to make it look like 50 ohms. Without the low pass
: filter,
: I get a very nice clean output (looks good on a scope, and SWR is low,
: so I don't think it is putting out spurs or harmonics).

: But if I include the LP filter in the circuit, the amp takes off,
: turning
: into an 18 Mhz oscillator!

: I checked the filter with a sig generator. The cutoff freq is where
: it is
: supposed to be.

: I've had this kind of problem before, with other amps.

: Any suggestions?

: 73 de Bill M0HBR CU2JL N2CQR
: http://planeta.clix.pt/n2cqr

2777. Re: power output formula

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-29 01:10:16 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10lk2rqam9iahaa@corp.supernews.com>
Source record: 22961

Your formula is off by a factor of 4. 24 vpp across 8 ohms = 9 watts.
Sorry 'bout that.

But who cares -- is it loud enough or isn't it?

Roy Lewallen, W7EL

Ken Scharf wrote:
> I built a small audio power amp to drive my computer
> speakers. With one channel driven into 8 ohms the PP
> voltage measured at 1khz was 24v before clipping.
> With both channels driven it was 20v.
>
> I think the formula for power output was ((vpp/sqr 2)**2)/R
> which would give me 36W one channel, and 25w per channel with
> both driven.
> (not bad for a 2n3055/mj2955 pair running at +- 15 volts)
>
> Is my math correct?

2778. Re: power output formula

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-29 01:22:18 UTC
From: Gary Schafer <gaschafer@comcast.net>
Message-ID: <bf3kl0l069nr7on6i3t62b6pcii1nep1qe@4ax.com>
Source record: 22962

If you are looking for average power out the formula is E squared/ R
Where E is rms volts. Rms voltage = .707 of peak voltage. Peak voltage
is .5 of PP.

So your power out is around 9 watts.

73
Gary K4FMX

On Tue, 28 Sep 2004 19:16:26 -0400, Ken Scharf
<wa2mzeNOTTHIS@bellsouth.net> wrote:

>I built a small audio power amp to drive my computer
>speakers. With one channel driven into 8 ohms the PP
>voltage measured at 1khz was 24v before clipping.
>With both channels driven it was 20v.
>
>I think the formula for power output was ((vpp/sqr 2)**2)/R
>which would give me 36W one channel, and 25w per channel with
>both driven.
>(not bad for a 2n3055/mj2955 pair running at +- 15 volts)
>
>Is my math correct?

2779. Re: Tube amp questions

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-29 07:45:08 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <8Kt6d.386$3j5.120@clgrps13>
Source record: 22963

Behold, Chris signalled from keyed 4-1000A filament:

> Did some testing. 6KV6A - 100W carrier, 6JG6A - 75W carrier. It produces
> up to a 200W unmodulated carrier.

Aye, but 'cha canna modulate it linearly laddy ;-)

--
Gregg t3h g33k
"Ratings are for transistors....tubes have guidelines"
http://geek.scorpiorising.ca

2780. Re: Tube amp questions

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-29 07:47:55 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <LMt6d.645$eq.472@edtnps84>
Source record: 22964

Behold, Art signalled from keyed 4-1000A filament:

> QRM+++

Heh, I wasn't your average "10-4 good buddy" op though ;-)
(well, tried not to be)

Only used it while travelling upcountry....I shut 'er off in the city and
rarely used it near home.

--
Gregg t3h g33k
"Ratings are for transistors....tubes have guidelines"
http://geek.scorpiorising.ca

2781. Re: Car Radios: Why is the reception so good...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-29 07:49:24 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <8Ot6d.646$eq.53@edtnps84>
Source record: 22965

After seeing all these replies here, I think one point stands out 5x9 - do not use an integrated receiver at home, but components.

--
Gregg t3h g33k
"Ratings are for transistors....tubes have guidelines"
http://geek.scorpiorising.ca

2782. Re: Getting RF amp stable

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-29 10:41:53 UTC
From: Eamon Skelton <Xnospam@oceanfree.net>
Message-ID: <2s0fm4F1fef77U2@uni-berlin.de>
Source record: 22972

Bill N2CQR MOHBR wrote:

> But if I include the LP filter in the circuit, the amp takes off,
> turning
> into an 18 Mhz oscillator!

I have found that the best way to build a stable amplifier is
to try and build an oscillator. To build a guaranteed to start
first time, every time oscillator, just try to build a stable
amplifier :-)

Follow good HF/VHF practice with the circuit layout.

Negative feedback can sometimes help (or make the problem worse).

Pay careful attention to power supply decoupling. The very
high LF gain of RF transistors can cause parasitic oscillation
at the resonant frequency of an L/C or R/C decoupling circuit.

Try the usual parasitic suppression tricks. A low value resistor
or ferrite bead in series with the FET gate. A ferrite bead
in series with the FET drain. A resistor in parallel with the
drain load inductor or transformer, as suggested by Allison.

Sometimes it can be easier and faster to start again with
a different layout than to debug a 'bad' circuit.

73, Ed. EI9GQ.

--
Remove 'X' to reply via e-mail.
Linux 2.6.7

2783. Re: Newbie ?: I've Built A Simple 1/4 Wave Dipole for 2 Mtrs. Could I Make a1/2 Wave?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-29 13:40:41 UTC
From: Brian - KB9BVN <kb9bvn@arrl.net>
Message-ID: <tXy6d.13146$gG4.10069@newsread1.news.pas.earthlink.net>
Source record: 22966

I built a portable 2m J-Pole out of 3/4" copper pipe.

When I want to play on 2m I just drag it out of the garage, and jam it in the ground. It's less than 10 feet tall, yet with it and my FT2600 at half power (25w-30w) I have had QSO's with hams on repeater systems almost 100 miles away. I turn the power all the way down to a few watts when working local repeater systems too.

Go here: http://archimedes.galilei.com/raiar/cactus.html

You don't say you're building this for UHF/VHF, so I am making an assumption.

A great vertical for 15-40m can be found on the W2IK website. And it is portable.

http://members.aol.com/realhamradio2/W2IK-ANTENNA.html

73 de KB9BVN

"WolfMan" <WMan@W2GLI.com> wrote in message
news:MfX5d.5593$NS1.2667609@news4.srv.hcvlny.cv.net...
> I'm Limited To An Antenna On The Front Of My House. Out My Window I Made A Simple !/4 wave Verticle Dipole. Would A 1/2 Wave Simply Be Twice The Length, Using 462/f Mhz, And Would There Be An Advantage With A 1/2 Wave Over a 1/4 Wave ?
> Thanks

2784. Re: cw adapter htx-10

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-29 13:50:24 UTC
From: Brian - KB9BVN <kb9bvn@arrl.net>
Message-ID: <A4z6d.1943$Yr.1058@newsread3.news.pas.earthlink.net>
Source record: 22967

Use K1 as specified, and order 1/4w resistors.

K1 is Digikey Part 255-1002-ND - Mouser may have them for less $$ (Aromat TQ2E-12V)

For NPN's use 2N2222A or equiv. (TP2222, PN2222A, etc)

For PNP I'd use 2N2907's as they are a little more sturdy than the 2N3906

There is no side tone generated with this mod.

73 de KB9BVN

Let us know how it turns out! Have fun!

"G. Doughty" <ki4bbl@cox.net> wrote in message
news:TwD5d.383$TY2.2@lakeread04...
> Hello all,
>
> I have the schematic for this altoids project but there is no parts list
> that I can find. I can build them but getting parts is different. My
last
> project was a rockmite 20. I was successful but this project is only by
> schematic. If anyone knows anything about this thing, can you help me
out.
> I have a feeling once I get started, I may have quite a few questions. Is
a
> relay a relay a relay? K1 is a relay but does it have to be what he
> suggests? I will probably get that relay but I am trying to learn as
well.
> Thanks so much.
>
> --
> 73
> G. Doughty
> ki4bbl AT cox DOT net
>
>

2785. Re: power output formula

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-29 15:07:07 UTC
From: Micro MegaWatt <MMW@power.net>
Message-ID: <vcA6d.36822$aW5.17224@fed1read07>
Source record: 22968

Just a thought -- the 8 ohms is Z impedance -- not R resistance

--
One Watt

To steal ideas from one person is plagiarism;
to steal from many is research.
-- Comedian Steven Wright

"Gary Schafer" <gaschafer@comcast.net> wrote in message
news:bf3kl0l069nr7on6i3t62b6pcii1nep1qe@4ax.com...
> If you are looking for average power out the formula is E squared/ R
> Where E is rms volts. Rms voltage = .707 of peak voltage. Peak voltage
> is .5 of PP.
>
> So your power out is around 9 watts.
>
> 73
> Gary K4FMX
>
>
> On Tue, 28 Sep 2004 19:16:26 -0400, Ken Scharf
> <wa2mzeNOTTHIS@bellsouth.net> wrote:
>
> >I built a small audio power amp to drive my computer
> >speakers. With one channel driven into 8 ohms the PP
> >voltage measured at 1khz was 24v before clipping.
> >With both channels driven it was 20v.
> >
> >I think the formula for power output was ((vpp/sqr 2)**2)/R
> >which would give me 36W one channel, and 25w per channel with
> >both driven.
> >(not bad for a 2n3055/mj2955 pair running at +- 15 volts)
> >
> >Is my math correct?
>

2786. Re: power output formula

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-29 15:50:48 UTC
From: Gary Schafer <gaschafer@comcast.net>
Message-ID: <gdmll0t3nan412qppsab42fpbmvtu2m7vo@4ax.com>
Source record: 22969

How do you know?

73
Gary K4FMX

On Wed, 29 Sep 2004 08:07:07 -0700, "Micro MegaWatt" <MMW@power.net>
wrote:

>Just a thought -- the 8 ohms is Z impedance -- not R resistance

2787. Re: power output formula

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-29 16:19:22 UTC
From: Micro MegaWatt <MMW@power.net>
Message-ID: <egB6d.37132$aW5.1579@fed1read07>
Source record: 22970

http://www.epanorama.net/documents/audio/speaker_impedance.html

Should expain it

--
One Watt

To steal ideas from one person is plagiarism;
to steal from many is research.
-- Comedian Steven Wright

"Gary Schafer" <gaschafer@comcast.net> wrote in message
news:gdmll0t3nan412qppsab42fpbmvtu2m7vo@4ax.com...
> How do you know?
>
> 73
> Gary K4FMX
>
> On Wed, 29 Sep 2004 08:07:07 -0700, "Micro MegaWatt" <MMW@power.net>
> wrote:
>
> >Just a thought -- the 8 ohms is Z impedance -- not R resistance
>

2788. Re: power output formula

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-29 19:05:01 UTC
From: Gary Schafer <gaschafer@comcast.net>
Message-ID: <4o1ml0dot9losge0vmqett1nce2val6f4o@4ax.com>
Source record: 22971

The article explains how to determine speaker impedance. Not how to measure amplifier power.

My point was "how do you know" the OP did not use an 8 ohm resistor for his power measurements. He did not say.

The common notation for power is E squared /R.

E squared /Z will not give you the correct answer unless Z is purely resistive.

You can not just measure voltage across a complex impedance and determine power. It is more complicated. You must then also know the phase angle that the reactance presents along with the resistance.

73
Gary K4FMX

On Wed, 29 Sep 2004 09:19:22 -0700, "Micro MegaWatt" <MMW@power.net> wrote:

>http://www.epanorama.net/documents/audio/speaker_impedance.html
>
>Should expain it

2789. Re: power output formula

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-29 19:25:03 UTC
From: Micro MegaWatt <MMW@power.net>
Message-ID: <j_D6d.37995$aW5.11540@fed1read07>
Source record: 22973

> Gary Schafer wrote: You can not just measure voltage across a complex
impedance and
> determine power. It is more complicated. You must then also know the
> phase angle that the reactance present along with the resistance.

Exactly my point - if he used the speaker and not an 8-ohm non inductive
resistor as the load

--
One Watt

To steal ideas from one person is plagiarism;
to steal from many is research.
-- Comedian Steven Wright

"Gary Schafer" <gaschafer@comcast.net> wrote in message
news:4o1ml0dot9losge0vmqett1nce2val6f4o@4ax.com...
> The article explains how to determine speaker impedance. Not how to
> measure amplifier power.
>
> My point was "how do you know" the OP did not use an 8 ohm resistor
> for his power measurements. He did not say.
>
> The common notation for power is E squared /R.
>
> E squared /Z will not give you the correct answer unless Z is purely
> resistive.
>
> You can not just measure voltage across a complex impedance and
> determine power. It is more complicated. You must then also know the
> phase angle that the reactance presents along with the resistance.
>
> 73
> Gary K4FMX
>
>
> On Wed, 29 Sep 2004 09:19:22 -0700, "Micro MegaWatt" <MMW@power.net>
> wrote:
>
> >http://www.epanorama.net/documents/audio/speaker_impedance.html
> >
> >Should expain it
>

2790. Re: My Sister Loves Champagne ! 364 [1/2]

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-29 21:05:08 UTC
From: NO SPAM <NOSPAM@NOSPAM.COM>
Message-ID: <atF6d.3778$Ae.1733@newsread1.dllstx09.us.to.verio.net>
Source record: 22974
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

Don't you ass holes have anything better to do with your time?

<vpklvb@optonline.net> wrote in message
news:GQE6d.10407$kq6.4553209@news4.srv.hcvlny.cv.net...
> My sister the dirty little slut got caught by my secret camera
masterbating with a champagne bottle , see the pics here.
> bvlgduhtqhvnkdjhnyrcdjyyjcsbjscmtlgfieiiruklswqlvlwimwnqgqhoxktdwgqnqlu
>

2791. FS: Andrews LDF 4-50 & LDF 5-50 at Leicester Show

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-29 22:58:28 UTC
From: Peter <peter@NOSPAMwires.ndo.co.uk>
Message-ID: <cjfemc$3g3$6@news6.svr.pol.co.uk>
Source record: 22975
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew,uk.radio.amateur

Available Saturday Oct 2 at Leicester Amateur Radio Show:-

Andrews LDF 4-50 coax
Lengths Qty available Price each GBP
16 m 3 16
17 m 2 17
21m 4 25
6m Lots! 3 Mag loops anyone??

Andrews LDF 5-50 coax
Lengths Qty available Price GBP
21.5 1 30

Sorry no connectors!!!

Mail off group to reserve & arrange mutually convenient collection
Cheers
Peter

To reply remove the obvious spam trap.....

2792. 2754P problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-30 01:04:47 UTC
From: rfgelitronics <no_spam@nowhere.com>
Message-ID: <PYI6d.4406$nj.2@newssvr13.news.prodigy.com>
Source record: 22976

Hello everybody:

I have a Tek 2754P in which the tuning/marker knob does not work at all. The system passes the self test and I can change all the parameters using the keypad.

Does anybody have any previous experience with this type of problems?

By the way, I have all the manuals and I am just waiting for the Service manual vol 1 (vol 2 arrived first)

Thank you

2793. TC9174F source

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-30 01:53:30 UTC
From: DOUGLAS SNOWDEN <SNOWDEN@peoplepc.com>
Message-ID: <uGJ6d.4925$ls6.1817@newsread3.news.atl.earthlink.net>
Source record: 22977
Cross-posted to: rec.radio.swap,rec.radio.amateur.homebrew,rec.radio.amateur.equipment

Trying to weed my way through bad parts on the IF board in a TS450S and there is a Toshiba TC9174F that is bad. It is a serial/parallel convertor.

Know where I can get a couple?

Doug, N4IJ

2794. Re: 2754P problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-30 02:37:31 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <MPG.1bc5114a3a9679e989729@news-central.giganews.com>
Source record: 22978

In article <PYI6d.4406$nj.2@newssvr13.news.prodigy.com>,
no_spam@nowhere.com says...
> Hello everybody:
>
> I have a Tek 2754P in which the tuning/marker knob does not work at all. The
> system passes the self test and I can change all the parameters using the
> keypad.
>
> Does anybody have any previous experience with this type of problems?

Yep. If everything works except the tuning knob, it sounds like you have a burned-out incandescent lamp in the rotary optical encoder for that knob. Pull the cover and look at the backside of the rotary encoder on the keyboard PCB with the analyzer running. If you don't see a glowing light bulb, that's the problem.

These are the smallest light bulbs I've ever seen. I once tried to substitute an LED for one of these bulbs, but didn't have any luck. If that's the problem, it may be tough to find a replacement. Hobby shop, maybe? Jim Yanik (formerly of Tek) may have a pointer or two if he sees your post.

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

2795. FA: Standard GX-3000 VHF APRS Radio

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-30 03:02:46 UTC
From: Norm VE3CZI <ve3czi@arrl.net>
Message-ID: <GJK6d.4862$By5.669807@read2.cgocable.net>
Source record: 22979
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.homebrew,rec.radio.swap

I have for Auction a Standard GX-3000 VHF APRS Radio [with DTMF] These Radios are Commercial Standard GX-3000 VHF Mobile Radios (136-150Mhz) 25-30 Watts O/P This radio will work very well as an APRS Mobile OR Base Radio Station. Units are much cheaper to use for dedicated APRS use rather than spending Large Dollars for a VHF Amateur XCVR and dedicate it to APRS use.... Programmed & Tested Operational on 144.390 Mhz. Am including a schematic of the Mic Connection.... You will have to make up the Interface Cable. These radios are capable of 64 Channels, Carrier Squelch Only and I can program them for other 2 Meter Frequencies for a charge. Please ask should you have any questions.
>> I have access to a LARGE Quantity of these if there is a requirement <<
73 & Tnx for looking....Norm VE3CZI

2796. Re: Standard GX-3000 VHF APRS Radio

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-30 03:09:29 UTC
From: Norm VE3CZI <ve3czi@arrl.net>
Message-ID: <1QK6d.11417$Xh4.5588@read1.cgocable.net>
Source record: 22980
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.homebrew,rec.radio.swap

Ebay Item: http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=5723446692

"Norm VE3CZI" <ve3czi@ arrl.net> wrote in message
news:GJK6d.4862$By5.669807@read2.cgocable.net...
> I have for Auction a Standard GX-3000 VHF APRS Radio [with DTMF] These
> Radios are Commercial Standard GX-3000 VHF Mobile Radios (136-150Mhz)
25-30
> Watts O/P This radio will work very well as an APRS Mobile OR Base Radio
> Station. Units are much cheaper to use for dedicated APRS use rather than
> spending Large Dollars for a VHF Amateur XCVR and dedicate it to APRS
> use.... Programmed & Tested Operational on 144.390 Mhz. Am including a
> schematic of the Mic Connection.... You will have to make up the Interface
> Cable. These radios are capable of 64 Channels, Carrier Squelch Only and I
> can program them for other 2 Meter Frequencies for a charge. Please ask
> should you have any questions.
> >> I have access to a LARGE Quantity of these if there is a requirement <<
> 73 & Tnx for looking....Norm VE3CZI
>
>

2797. Re: 2754P problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-30 13:25:57 UTC
From: John Walton <jdwalton@comcast.net>
Message-ID: <rc-dnWJXeaPWlcHcRVn-tw@comcast.com>
Source record: 22981

"grain of wheat" lamp ?

"John Miles" <jmiles@pop.removethistomailme.net> wrote in message
news:MPG.1bc5114a3a9679e989729@news-central.giganews.com...
> In article <PYI6d.4406$nj.2@newssvr13.news.prodigy.com>,
> no_spam@nowhere.com says...
> > Hello everybody:
> >
> > I have a Tek 2754P in which the tuning/marker knob does not work at all.
The
> > system passes the self test and I can change all the parameters using
the
> > keypad.
> >
> > Does anybody have any previous experience with this type of problems?
>
> Yep. If everything works except the tuning knob, it sounds like you
> have a burned-out incandescent lamp in the rotary optical encoder for
> that knob. Pull the cover and look at the backside of the rotary
> encoder on the keyboard PCB with the analyzer running. If you don't see
> a glowing light bulb, that's the problem.
>
> These are the smallest light bulbs I've ever seen. I once tried to
> substitute an LED for one of these bulbs, but didn't have any luck. If
> that's the problem, it may be tough to find a replacement. Hobby shop,
> maybe? Jim Yanik (formerly of Tek) may have a pointer or two if he sees
> your post.
>
> -- jm
>
> --
> http://www.qsl.net/ke5fx
> Note: My E-mail address has been altered to avoid spam
> --

2798. Re: Wattmeter Location

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-30 18:43:56 UTC
From: "Edgar Brown, N6OU" <n6ou@arrl.net>
Message-ID: <MtY6d.285917$mD.87716@attbi_s02>
Source record: 22982

Why do it the hard way. Use a bidirectional coupler made for the frequency range and power level of the amp such as the Bird 4266(1500 Watts). Then you can measure power, SWR or hook up your counter, oscope, or spectrum analyzer etc. without fear of destroying them. It gives 30 dB isolation from the line and is flat in frequency response (plus/minus 0.5 dB or less 1.5 to 40 Mhz measured here.)

"Roy Lewallen" <w7el@eznec.com> wrote in message news:10ki9e21u5kvu6a@corp.supernews.com...
> The problem with a plain resistive divider is that the detector (or, in
> the case of a scope probe, the scope input) invariably has an associated
> shunt C. Without compensation, the lower arm of the divider gets less
> voltage than it should, due to that shunt C. If the capacitive reactance
> is high compared to the resistance of the lower divider arm at the highest
> frequency of interest, then you can probably get by without shunt
> capacitors. But otherwise, you need to make a compensated attenuator by
> putting C across at least the upper divider arm.
>
> The rule for making a compensated divider is that the time constants of
> the top and bottom should be equal. That is, R1C1 = R2C2 where R1 and C1
> are the parallel R and C at the bottom of the divider, and R2 and C2 at
> the top.
>
> This kind of divider has a theoretically flat frequency response, that is,
> the voltage at the tap is constant assuming that the voltage applied to
> the top of the divider is constant. But there's the rub. The impedance of
> the divider is *not* constant with frequency -- because of the C, it
> decreases as frequency increases. So depending on the circuit it's put
> across, above some frequency the divider will begin disturbing the circuit
> being measured due to the divider's too-low impedance. Consequently, the
> design procedure is usually to first minimize the detector or load C. This
> allows you to use the smallest possible C in the top part of the divider,
> resulting in minimized loading of the circuit to be measured. In general,
> you don't want to add physical C to the lower part of the divider, unless
> the load (detector) C is variable, unpredictable, or nonlinear, which
> requires it to be swamped by a known, fixed, good-quality C.
>
> Even such a simple circuit isn't trivial, if very accurate division and
> wide frequency response (or fast and low-aberration time response) are
> required. "Hook", "soak", and other nonlinear effects are well-known to
> designers of oscilloscope front ends, as are the tricks and skills
> necessary to avoid them. But these problems are much worse for high
> impedance dividers than ones designed to operate in a low impedance
> environment like 50 ohms.

>
> Roy Lewallen, W7EL
>
> gudmundur wrote:
>>
>> Resistive dividers don't work worth a crap at rf, unless you use
>> non-inductive resistors, and then you must consider that your input
>> to the squaring circuit will have some capacitance to ground, who's
>> ability to screw up your higher frequency readings will be astronomical.
>> Why the squaring circuit?
>>
>> Bottom line is this, all the resistive ladders I have played with
>> were worthless unless they contained capacitive compensation, which
>> can be found only by trial and error. I prefer a 'T' connection with
>> a good quality 'coaxial pad' of 10 db, then I feed it to my Tek 2215A
>> scope. It's deadly accurate from D.C. to at least 30mhz. More accurate
>> than any of my inline wattmeters, with the exception of the 'BIRD', and
>> that is only good across the spectrum of the slug I use.
>>

2799. 18nH Inductor

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-30 19:56:34 UTC
From: Joe <nuisancewildlife@nospamearthlink.net>
Message-ID: <SxZ6d.5576$ls6.2629@newsread3.news.atl.earthlink.net>
Source record: 22983
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

I have been searching the catalogs for an 18nanohenry inductor to use in conjunction with a Radiotronix RCR-433-RP Receiver and transmitter pair for a remote control I am working on. Radiotronix has an app note that shows this inductor used with a couple of 8.2pf caps to get good reception/transmission for their modules.

I have been unable to find a source other than surface mount parts. Does anyone know of a source for this size inductor, or know the formula that I would use to wind my own?

I am posting this to rec.radio.amateur.homebrew and rec.radio.amateur.antenna

TIA,

Joe
KB1KVI

2800. Re: 18nH Inductor

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-30 20:49:16 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <unqol0l8k735fgfpo32s845o1edoujnvof@4ax.com>
Source record: 22984
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

On Thu, 30 Sep 2004 19:56:34 GMT, "Joe"
<nuisancewildlife@nospamearthlink.net> wrote:

>I have been unable to find a source other than surface mount parts. Does
>anyone know of a source for this size inductor, or know the formula that I
>would use to wind my own?

"Wind" ?

As a rule of thumb, a thin wire has an inductance about 1 nH/mm, so a
straight wire about 18 mm long would have the required inductance. For
a thicker wire, about 25-30 mm straight wire would be required. Even a
single turn would increase the inductance quickly, so you would have
to shorten the wire considerably.

If 18 nH surface mount inductors exists, why not use them ? At least
the inductance would be much predictable.

Paul OH3LWR

2801. Re: 18nH Inductor

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-30 21:05:05 UTC
From: John Smith <kd5yikes@mindspring.com>
Message-ID: <5y_6d.3067$Yr.2732@newsread3.news.pas.earthlink.net>
Source record: 22985
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

"Joe" <nuisancewildlife@nospamearthlink.net> wrote in message
news:SxZ6d.5576$ls6.2629@newsread3.news.atl.earthlink.net...
>I have been searching the catalogs for an 18nanohenry inductor to use in
> conjunction with a Radiotronix RCR-433-RP Receiver and transmitter pair
> for
> a remote control I am working on. Radiotronix has an app note that shows
> this inductor used with a couple of 8.2pf caps to get good
> reception/transmission for their modules.
>
> I have been unable to find a source other than surface mount parts. Does
> anyone know of a source for this size inductor, or know the formula that
> I
> would use to wind my own?
>
> I am posting this to rec.radio.amateur.homebrew and
> rec.radio.amateur.antenna
>
> TIA,
>
> Joe
> KB1KVI

A one inch length of #18 AWG wire is about 18 nH at VHF and above, according to the ARRL Handbook, 2004 edition, page 10.10. The equation is:

L = .00508b[ln(2b/a)-.75] where

L is in uH
b is length in inches
a is wire radius in inches
and change the .75 to 1 for VHF and above

So, it kind of makes sense why they don't sell lead-mounted 18 nH inductors. People would complain that they only got one lead, and it's a short lead at that.

If I were trying it, I'd try a one-turn loop of about 1/4 diameter with leads just long enough to solder into the circuit. Maybe all you need is a kinky piece of wire and adjust the kink to tune.

Good luck,
John (KD5YI)

2802. Re: Wattmeter Location

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-30 22:31:14 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cji1fiihh1@sparta.btinternet.com>
Source record: 22818

I keep telling you, apparently to no avail, all you need is a TLI.

Stop confusing yourselves.

Reg

2803. Re: 2754P problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-30 22:46:19 UTC
From: rfgelitronics <no_spam@nowhere.com>
Message-ID: <%007d.22572$QJ3.21560@newssvr21.news.prodigy.com>
Source record: 22986

Yes it is a very small incandescent lamp, about 1.5-2mm wide....I was thinking about using a 0603 white LED, they are very bright. I just found some Tek lamps but I am not sure if they are the right size. T 3/4 what is the 3/4???

"John Walton" <jdwalton@comcast.net> wrote in message news:rc-dnWJXeaPWlcHcRVn-tw@comcast.com...
> "grain of wheat" lamp ?
>
> "John Miles" <jmiles@pop.removethistomailme.net> wrote in message
> news:MPG.1bc5114a3a9679e989729@news-central.giganews.com...
>> In article <PYI6d.4406$nj.2@newssvr13.news.prodigy.com>,
>> no_spam@nowhere.com says...
>> > Hello everybody:
>> >
>> > I have a Tek 2754P in which the tuning/marker knob does not work at
>> > all.
> The
>> > system passes the self test and I can change all the parameters using
> the
>> > keypad.
>> >
>> > Does anybody have any previous experience with this type of problems?
>>
>> Yep. If everything works except the tuning knob, it sounds like you
>> have a burned-out incandescent lamp in the rotary optical encoder for
>> that knob. Pull the cover and look at the backside of the rotary
>> encoder on the keyboard PCB with the analyzer running. If you don't see
>> a glowing light bulb, that's the problem.
>>
>> These are the smallest light bulbs I've ever seen. I once tried to
>> substitute an LED for one of these bulbs, but didn't have any luck. If
>> that's the problem, it may be tough to find a replacement. Hobby shop,
>> maybe? Jim Yanik (formerly of Tek) may have a pointer or two if he sees
>> your post.
>>
>> -- jm
>>
>> --
>> http://www.qsl.net/ke5fx
>> Note: My E-mail address has been altered to avoid spam
>> --
>
>

2804. Re: Wattmeter Location

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-30 23:01:49 UTC
From: jgboyles@aol.com
Message-ID: <20040930190149.28581.00001256@mb-m20.aol.com>
Source record: 22819

>I keep telling you, apparently to no avail, all you need is a TLI.

Hi Reg, What I am attempting is to measure the PEP output power of a homebrew solid state amplifier. The amp should provide about 20 db power gain. A TLI will assure me I have a 50 ohm match. That was given in the orginal post. What I was looking for was a fairly accurate wattmeter, assuming the load was around 50 ohms. I was wanting to put a voltage divider at the input to my ATU. I have several replies stating the voltage divider must be frequency compensated to have a chance of accuracy. I have a surplus 100:1 scope probe I will take a look, and report back.
73 Gary N4AST

2805. Re: 18nH Inductor

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-30 23:27:10 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <sf5pl0dm27fsh2aj1jqj15qte6a1eosdka@4ax.com>
Source record: 22987
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

On Thu, 30 Sep 2004 22:10:09 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>However, to find the length, diameter and number of turns to make such a
>small coil you can use program SOLNOID3 which can be downloaded in a few
>seconds, free of charge, and run immediately from the the website below.
>Try it and see what happens.

Does it crash, Reg? ;-)
Seriously, would it not be better to use a spiral PCB trace?
--

"What is now proved was once only imagin'd." - William Blake, 1793.

2806. Re: 2754P problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-30 23:30:28 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <MPG.1bc636efa6f471bd98972b@news-central.giganews.com>
Source record: 22988

In article <%007d.22572$QJ3.21560@newssvr21.news.prodigy.com>,
no_spam@nowhere.com says...
> Yes it is a very small incandescent lamp, about 1.5-2mm wide....I was
> thinking about using a 0603 white LED, they are very bright.

Could be worth trying. I experimented (unsuccessfully) with a red LED.

You may also be able to just order a replacement encoder assembly from
Deane Kidd (dektyr@teleport.com). He will need a part # from the
service manual before he can help.

Also, you could try Tom Neumann at www.tektrotom.de . Might be more
convenient if you're closer to the EU than the US.

-- john KE5FX

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

2807. Re: power output formula

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-09-30 23:32:54 UTC
From: Gary Schafer <gaschafer@comcast.net>
Message-ID: <pr5pl0hqd3s9bdk345hkjtn3lobacti6qr@4ax.com>
Source record: 22989

On Thu, 30 Sep 2004 09:41:43 -0700, Bill Turner <noway@nohow.com>
wrote:

>On Tue, 28 Sep 2004 19:16:26 -0400, Ken Scharf
><wa2mzeNOTTHIS@bellsouth.net> wrote:
>
>>I built a small audio power amp to drive my computer
>>speakers. With one channel driven into 8 ohms the PP
>>voltage measured at 1khz was 24v before clipping.
>>With both channels driven it was 20v.
>
>_____
>
>Peak-to-peak voltage has no meaning when computing power. There is no
>such thing as peak-to-peak power.
>
>You can use either the peak voltage or RMS voltage, and in either case
>the formula is E(squared)/R. Your answer will be either peak power or
>RMS power.

Since everyone is being a little picky, there is also no such thing as
RMS power. When you use RMS voltage you get average power. :>)

73
Gary K4FMX

2808. Re: 18nH Inductor

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-01 00:07:35 UTC
From: Joe <nuisancewildlife@nospamearthlink.net>
Message-ID: <bd17d.6009$ls6.1366@newsread3.news.atl.earthlink.net>
Source record: 22990
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

"Paul Keinanen" <keinanen@sci.fi> wrote in message
news:unqol0l8k735fgfpo32s845o1edoujnvof@4ax.com...
> On Thu, 30 Sep 2004 19:56:34 GMT, "Joe"
> <nuisancewildlife@nospamearthlink.net> wrote:
>
> >I have been unable to find a source other than surface mount parts. Does
> >anyone know of a source for this size inductor, or know the formula that
I
> >would use to wind my own?
>
> "Wind" ?
>
> As a rule of thumb, a thin wire has an inductance about 1 nH/mm, so a
> straight wire about 18 mm long would have the required inductance. For
> a thicker wire, about 25-30 mm straight wire would be required. Even a
> single turn would increase the inductance quickly, so you would have
> to shorten the wire considerably.
>
> If 18 nH surface mount inductors exists, why not use them ? At least
> the inductance would be much predictable.
>
> Paul OH3LWR
>

Thanks Paul,

What do you mean by a thin wire? #20 magnet wire, #26?

Sounds like I can make my own and very easily, with just a 18mm length of
(not sure what size) wire.

Joe
KB1KVI

2809. Re: 18nH Inductor

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-01 00:12:24 UTC
From: Joe <nuisancewildlife@nospamearthlink.net>
Message-ID: <lh17d.6015$ls6.5005@newsread3.news.atl.earthlink.net>
Source record: 22991
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

"John Smith" <kd5yikes@mindspring.com> wrote in message
news:5y_6d.3067$Yr.2732@newsread3.news.pas.earthlink.net...
>
> "Joe" <nuisancewildlife@nospamearthlink.net> wrote in message
> news:SxZ6d.5576$ls6.2629@newsread3.news.atl.earthlink.net...
> >I have been searching the catalogs for an 18nanohenry inductor to use in
> > conjunction with a Radiotronix RCR-433-RP Receiver and transmitter pair
> > for
> > a remote control I am working on. Radiotronix has an app note that shows
> > this inductor used with a couple of 8.2pf caps to get good
> > reception/transmission for their modules.
> >
> > I have been unable to find a source other than surface mount parts. Does
> > anyone know of a source for this size inductor, or know the formula
that
> > I
> > would use to wind my own?
> >
> > I am posting this to rec.radio.amateur.homebrew and
> > rec.radio.amateur.antenna
> >
> > TIA,
> >
> > Joe
> > KB1KVI
>
>
> A one inch length of #18 AWG wire is about 18 nH at VHF and above,
according
> to the ARRL Handbook, 2004 edition, page 10.10. The equation is:
>
> L = .00508b[ln(2b/a)-.75] where
>
> L is in uH
> b is length in inches
> a is wire radius in inches
> and change the .75 to 1 for VHF and above
>
> So, it kind of makes sense why they don't sell lead-mounted 18 nH
inductors.
> People would complain that they only got one lead, and it's a short lead
at
> that.

>
> If I were trying it, I'd try a one-turn loop of about 1/4 diameter with
> leads just long enough to solder into the circuit. Maybe all you need is a
> kinky piece of wire and adjust the kink to tune.
>
> Good luck,
> John (KD5YI)
>

Hi John,

Thanks for the info. Much more specific. I didn't realize I could make one from #18. I have the latest ARRL handbook, but maybe wasn't looking in the right place to see that info.

I don't have an inductance meter, so I am not sure how I would tune it. It is for 433.92MHz.

http://www.radiotronix.com/downloads/433_pair.pdf

The document is at the above address.

Thank you again,
Joe
KB1KVI

2810. Re: 18nH Inductor

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-01 00:15:17 UTC
From: Joe <nuisancewildlife@nospamearthlink.net>
Message-ID: <pk17d.6019$ls6.4814@newsread3.news.atl.earthlink.net>
Source record: 22992
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:cji081$nq7$1@titan.btinternet.com...
> An 18 nano-henry inductor seems, to me, to be an impractical inductor
value.
> The length of the connecting wires will form an appreciable part of the
> inductance. There must be another way of acheiving the desired circuit
> functions.
>
> However, to find the length, diameter and number of turns to make such a
> small coil you can use program SOLNOID3 which can be downloaded in a few
> seconds, free of charge, and run immediately from the the website below.
> Try it and see what happens.
> ---
> ....
> Regards from Reg, G4FGQ
> For Free Radio Design Software go to
> http://www.btinternet.com/~g4fgq.regp
> ....
>

Thanks Reg,

I will download that program. It sounded kind of small to me too. I don't
use smd because I don't know how.

The link to the schematic is:
http://www.radiotronix.com/downloads/433_pair.pdf

Joe
KB1KVI

2811. Re: 18nH Inductor

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-01 00:20:37 UTC
From: Joe <nuisancewildlife@nospamearthlink.net>
Message-ID: <pp17d.8983$Ki1.847@newsread2.news.atl.earthlink.net>
Source record: 22993
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

"Gregg" <nospam@unknown.org> wrote in message
news:a3%6d.496$223.176@edtnps89...
> Behold, John Smith signalled from keyed 4-1000A filament:
>
>
> > "Joe" <nuisancewildlife@nospamearthlink.net> wrote in message
> > news:SxZ6d.5576$ls6.2629@newsread3.news.atl.earthlink.net...
> >>I have been searching the catalogs for an 18nanohenry inductor to use in
> >> conjunction with a Radiotronix RCR-433-RP Receiver and transmitter pair
> >> for
> >> a remote control I am working on. Radiotronix has an app note that
> >> shows this inductor used with a couple of 8.2pf caps to get good
> >> reception/transmission for their modules.
> >>
> >> I have been unable to find a source other than surface mount parts.
> >> Does anyone know of a source for this size inductor, or know the
> >> formula that I
> >> would use to wind my own?
> >>
> >> I am posting this to rec.radio.amateur.homebrew and
> >> rec.radio.amateur.antenna
> >>
> >> TIA,
> >>
> >> Joe
> >> KB1KVI
> >
> >
> > A one inch length of #18 AWG wire is about 18 nH at VHF and above,
> > according to the ARRL Handbook, 2004 edition, page 10.10. The equation
> > is:
> >
> > L = .00508b[ln(2b/a)-.75] where
> >
> > L is in uH
> > b is length in inches
> > a is wire radius in inches
> > and change the .75 to 1 for VHF and above
> >
> > So, it kind of makes sense why they don't sell lead-mounted 18 nH
> > inductors. People would complain that they only got one lead, and it's a
> > short lead at that.
>

> Yes! Digi-Key.com does sell SMD inductors that small, but not leaded.
>
> --
> Gregg t3h g33k
> "Ratings are for transistors....tubes have guidelines"
> http://geek.scorpiorising.ca

Mouser sells them too, but I don't know how to work with surface mounted parts.

Thanks,
Joe
KB1KVI

2812. Re: power output formula

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-01 00:50:49 UTC
From: Ken Scharf <wa2mzeNOTTHIS@bellsouth.net>
Message-ID: <gS17d.122601$Np2.118131@bignews4.bellsouth.net>
Source record: 22994

Hmm, I actually thought the power output was 1/2 of what
I had calculated, so I'm a little confused.

I measured the 24v p-p using an oscilloscope (one of
those new fangled ones that actually let you set cursor
lines on the screen to bracket the waveform and it then
shows the voltage measurement on the screen, in this case
24v pp). I used an 8 ohm non-inductive 50w resistor
as a load (actually two of them, one per channel).

Now if I take 24 volts and reduce it by .707 I get 16.96,
and if I square that 287.9, and divide that by 8
(e**2)/r the result is 36. OK, I'm still missing
something. Maybe .707 * 12v (why HALF the pp voltage?),
yeah that gives just about 9 watts out.

BTW, I expected by the size of the power transformer I used,
and how hot the heat sinks get, that it wasn't giving more
than 10w per channel. And for driving a set of compact
speakers to just play music from my computer, that's
good enough.

Micro MegaWatt wrote:
> Just a thought -- the 8 ohms is Z impedance -- not R resistance
>
> --
> One Watt
>
> To steal ideas from one person is plagiarism;
> to steal from many is research.
> -- Comedian Steven Wright
>
>
> "Gary Schafer" <gaschafer@comcast.net> wrote in message
> news:bf3kl0l069nr7on6i3t62b6pcii1nep1qe@4ax.com...
>
>>If you are looking for average power out the formula is E squared/ R
>>Where E is rms volts. Rms voltage = .707 of peak voltage. Peak voltage
>>is .5 of PP.
>>
>>So your power out is around 9 watts.
>>
>>73
>>Gary K4FMX
>>

>>
>>On Tue, 28 Sep 2004 19:16:26 -0400, Ken Scharf
>><wa2mzeNOTTHIS@bellsouth.net> wrote:
>>
>>
>>>I built a small audio power amp to drive my computer
>>>speakers. With one channel driven into 8 ohms the PP
>>>voltage measured at 1khz was 24v before clipping.
>>>With both channels driven it was 20v.
>>>
>>>I think the formula for power output was ((vpp/sqr 2)**2)/R
>>>which would give me 36W one channel, and 25w per channel with
>>>both driven.
>>>(not bad for a 2n3055/mj2955 pair running at +- 15 volts)
>>>
>>>Is my math correct?
>>
>
>

2813. Re: 18nH Inductor

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-01 02:33:14 UTC
From: John Smith <kd5yikes@mindspring.com>
Message-ID: <KI37d.14328$gG4.12002@newsread1.news.pas.earthlink.net>
Source record: 22995
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

"Joe" <nuisancewildlife@nospamearthlink.net> wrote in message
news:Ih17d.6015$ls6.5005@newsread3.news.atl.earthlink.net...
>
> "John Smith" <kd5yikes@mindspring.com> wrote in message
> news:5y_6d.3067$Yr.2732@newsread3.news.pas.earthlink.net...
>>
>> "Joe" <nuisancewildlife@nospamearthlink.net> wrote in message
>> news:SxZ6d.5576$ls6.2629@newsread3.news.atl.earthlink.net...
>> >I have been searching the catalogs for an 18nanohenry inductor to use in
>> > conjunction with a Radiotronix RCR-433-RP Receiver and transmitter pair
>> > for
>> > a remote control I am working on. Radiotronix has an app note that
>> > shows
>> > this inductor used with a couple of 8.2pf caps to get good
>> > reception/transmission for their modules.
>> >
>> > I have been unable to find a source other than surface mount parts.
>> > Does
>> > anyone know of a source for this size inductor, or know the formula
> that
>> > I
>> > would use to wind my own?
>> >
>> > I am posting this to rec.radio.amateur.homebrew and
>> > rec.radio.amateur.antenna
>> >
>> > TIA,
>> >
>> > Joe
>> > KB1KVI
>>
>>
>> A one inch length of #18 AWG wire is about 18 nH at VHF and above,
> according
>> to the ARRL Handbook, 2004 edition, page 10.10. The equation is:
>>
>> L = .00508b[ln(2b/a)-.75] where
>>
>> L is in uH
>> b is length in inches
>> a is wire radius in inches
>> and change the .75 to 1 for VHF and above
>>

>> So, it kind of makes sense why they don't sell lead-mounted 18 nH
> inductors.
>> People would complain that they only got one lead, and it's a short lead
> at
>> that.
>>
>> If I were trying it, I'd try a one-turn loop of about 1/4 diameter with
>> leads just long enough to solder into the circuit. Maybe all you need is
>> a
>> kinky piece of wire and adjust the kink to tune.
>>
>> Good luck,
>> John (KD5YI)
>>
>
>
> Hi John,
>
> Thanks for the info. Much more specific. I didn't realize I could make one
> from #18. I have the latest ARRL handbook, but maybe wasn't looking in
> the
> right place to see that info.
>
> I don't have an inductance meter, so I am not sure how I would tune it. It
> is for 433.92MHz.
>
> http://www.radiotronix.com/downloads/433_pair.pdf
>
> The document is at the above address.
>
> Thank you again,
> Joe
> KB1KVI

Hi, Joe -

You won't tune it with an inductance meter. You could try constructing one of those RF millivoltmeters in the ARRL manual and reading the voltage across a (leadless) 50 Ohm output resistor. Then try kinking your wire (inductor) to see if you can tune it that way.

I strongly recommend you get a copy of "The ARRL UHF/Microwave Experimenter's Manual" and read it like there is no tomorrow. It will open your eyes about things that happen to wires at 434 MHz. For example, if you've made a few calculations, you may have discovered that an 18 nH inductor has a reactance of almost 50 Ohms at 434 MHz. That's why you are told to have no leads on components at that frequency. Have you seen a 440 MHz power amplifier? You will notice the absence of many inductors and capacitors compared to lower frequency amplifiers. That's because they use a few inches of PCB material to make inductors, capacitors, transmission lines.

If they did make leaded 18 nH inductors, how long would the leads be? If you purchase an 18 nH SMD inductor and put two 1/4 inch long #22 AWG wires on it, you will then have a 27 nH inductor. That doesn't solve your problem.

Your problem at 434 MHz will be that every component (with leads) that you add, you will also add several nH of inductance if your leads are longer than .1 inches or so.

If you analyze the receiving network, you will see that, if the antenna is 50 Ohms, the receiver sees 50 Ohms. So the network appears to simply be a filter. I would loose the receiver PI network, for sure. I think the transmitter is similar.

If it were me, I would forget both PI networks and even forget the pad on the transmitter. Put a cotton pickin' 6.8 inch antenna on the module and try it. Arrange your module so the antenna can be attached directly to the pin of the module, if possible.

Or, do these transmitters require the PI network to stay within FCC limits?

Anyway, good luck.

John

2814. Re: 18nH Inductor

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-01 02:33:16 UTC
From: John Smith <kd5yikes@mindspring.com>
Message-ID: <MI37d.14329$gG4.2939@newsread1.news.pas.earthlink.net>
Source record: 22996
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

"Joe" <nuisancewildlife@nospamearthlink.net> wrote in message
news:Ih17d.6015$ls6.5005@newsread3.news.atl.earthlink.net...
>
> "John Smith" <kd5yikes@mindspring.com> wrote in message
> news:5y_6d.3067$Yr.2732@newsread3.news.pas.earthlink.net...
>>
>> "Joe" <nuisancewildlife@nospamearthlink.net> wrote in message
>> news:SxZ6d.5576$ls6.2629@newsread3.news.atl.earthlink.net...
>> >I have been searching the catalogs for an 18nanohenry inductor to use in
>> > conjunction with a Radiotronix RCR-433-RP Receiver and transmitter pair
>> > for
>> > a remote control I am working on. Radiotronix has an app note that
>> > shows
>> > this inductor used with a couple of 8.2pf caps to get good
>> > reception/transmission for their modules.
>> >
>> > I have been unable to find a source other than surface mount parts.
>> > Does
>> > anyone know of a source for this size inductor, or know the formula
> that
>> > I
>> > would use to wind my own?
>> >
>> > I am posting this to rec.radio.amateur.homebrew and
>> > rec.radio.amateur.antenna
>> >
>> > TIA,
>> >
>> > Joe
>> > KB1KVI
>>
>>
>> A one inch length of #18 AWG wire is about 18 nH at VHF and above,
> according
>> to the ARRL Handbook, 2004 edition, page 10.10. The equation is:
>>
>> L = .00508b[ln(2b/a)-.75] where
>>
>> L is in uH
>> b is length in inches
>> a is wire radius in inches
>> and change the .75 to 1 for VHF and above
>>

>> So, it kind of makes sense why they don't sell lead-mounted 18 nH
> inductors.
>> People would complain that they only got one lead, and it's a short lead
> at
>> that.
>>
>> If I were trying it, I'd try a one-turn loop of about 1/4 diameter with
>> leads just long enough to solder into the circuit. Maybe all you need is
>> a
>> kinky piece of wire and adjust the kink to tune.
>>
>> Good luck,
>> John (KD5YI)
>>
>
>
> Hi John,
>
> Thanks for the info. Much more specific. I didn't realize I could make one
> from #18. I have the latest ARRL handbook, but maybe wasn't looking in
> the
> right place to see that info.
>
> I don't have an inductance meter, so I am not sure how I would tune it. It
> is for 433.92MHz.
>
> http://www.radiotronix.com/downloads/433_pair.pdf
>
> The document is at the above address.
>
> Thank you again,
> Joe
> KB1KVI

Hi, Joe -

You won't tune it with an inductance meter. You could try constructing one of those RF millivoltmeters in the ARRL manual and reading the voltage across a (leadless) 50 Ohm output resistor. Then try kinking your wire (inductor) to see if you can tune it that way.

I strongly recommend you get a copy of "The ARRL UHF/Microwave Experimenter's Manual" and read it like there is no tomorrow. It will open your eyes about things that happen to wires at 434 MHz. For example, if you've made a few calculations, you may have discovered that an 18 nH inductor has a reactance of almost 50 Ohms at 434 MHz. That's why you are told to have no leads on components at that frequency. Have you seen a 440 MHz power amplifier? You will notice the absence of many inductors and capacitors compared to lower frequency amplifiers. That's because they use a few inches of PCB material to make inductors, capacitors, transmission lines.

If they did make leaded 18 nH inductors, how long would the leads be? If you purchase an 18 nH SMD inductor and put two 1/4 inch long #22 AWG wires on it, you will then have a 27 nH inductor. That doesn't solve your problem.

Your problem at 434 MHz will be that every component (with leads) that you add, you will also add several nH of inductance if your leads are longer than .1 inches or so.

If you analyze the receiving network, you will see that, if the antenna is 50 Ohms, the receiver sees 50 Ohms. So the network appears to simply be a filter. I would loose the receiver PI network, for sure. I think the transmitter is similar.

If it were me, I would forget both PI networks and even forget the pad on the transmitter. Put a cotton pickin' 6.8 inch antenna on the module and try it. Arrange your module so the antenna can be attached directly to the pin of the module, if possible.

Or, do these transmitters require the PI network to stay within FCC limits?

Anyway, good luck.

John

2815. Re: power output formula

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-01 02:33:27 UTC
From: Gary Schafer <gaschafer@comcast.net>
Message-ID: <pegpl0prrgteiqovkr5s0hm1r6lo7rmmc7@4ax.com>
Source record: 22997

Hi Ken,

It is fine to measure peak to peak voltage but you can only use peak voltage to find power. Looking at a scope it is easier to find peak to peak than it is to find just peak as there is no line or mark where zero voltage is. Once you find peak to peak then just divide by 2 and you have peak.

Consider that your positive peak goes from zero to 12 volts and back to zero. The negative peak goes from zero to - 12 volts and back to zero. Although there is 24 volts peak to peak they do not happen at the same time. One is half a cycle later than the other. So you can only use one at a time. When the positive peak is at +12 volts there is no negative peak at that time. No power there.

Remember that the horizontal movement of the trace on the scope represents time. Draw a vertical line down the screen from a positive peak and you will see that there is nothing on the negative side at that time. Do the same with a negative peak. Draw a vertical line up and you will see that there is nothing on the positive side at that time.

At any given time all you have to work with is either a positive or a negative voltage. Not both at once.
You can use either the positive peak or the negative peak voltage (1/2 of peak to peak).

By the way, if the amplifier is not perfectly linear the positive and negative peaks may not be exactly the same. You could have some clipping on the positive peaks and not the negative peaks as an example.
Then you don't have a perfect sine wave and you will get an error trying to find rms voltage too as the .707 only works for a pure sine wave.

You first take 1/2 of peak to peak to find peak voltage. Then multiply the peak voltage by .707 to find rms voltage. Then square the rms voltage and divide that by the resistance. That gives power. 9 watts in your case.

73
Gary K4FMX

On Thu, 30 Sep 2004 20:50:49 -0400, Ken Scharf
<wa2mzeNOTTHIS@bellsouth.net> wrote:

>Hmm, I actually thought the power output was 1/2 of what
>I had calculated, so I'm a little confused.
>
>I measured the 24v p-p using an oscilloscope (one of
>those new fangled ones that actually let you set cursor
>lines on the screen to bracket the waveform and it then
>shows the voltage measurement on the screen, in this case
>24v pp). I used an 8 ohm non-inductive 50w resistor
>as a load (actually two of them, one per channel).
>
>Now if I take 24 volts and reduce it by .707 I get 16.96,
>and if I square that 287.9, and divide that by 8
>(e**2)/r the result is 36. OK, I'm still missing
>something. Maybe .707 * 12v (why HALF the pp voltage?),
>yeah that gives just about 9 watts out.
>
>BTW, I expected by the size of the power transformer I used,
>and how hot the heat sinks get, that it wasn't giving more
>than 10w per channel. And for driving a set of compact
>speakers to just play music from my computer, that's
>good enough.
>
>
>
>Micro MegaWatt wrote:
>> Just a thought -- the 8 ohms is Z impedance -- not R resistance
>>
>> --
>> One Watt
>>
>> To steal ideas from one person is plagiarism;
>> to steal from many is research.
>> -- Comedian Steven Wright
>>
>>
>> "Gary Schafer" <gaschafer@comcast.net> wrote in message
>> news:bf3kl0l069nr7on6i3t62b6pcii1nep1qe@4ax.com...
>>
>>>If you are looking for average power out the formula is E squared/ R
>>>Where E is rms volts. Rms voltage = .707 of peak voltage. Peak voltage
>>>is .5 of PP.
>>>
>>>So your power out is around 9 watts.
>>>
>>>73
>>>Gary K4FMX
>>>
>>>
>>>On Tue, 28 Sep 2004 19:16:26 -0400, Ken Scharf
>>><wa2mzeNOTTHIS@bellsouth.net> wrote:
>>>

>>>
>>>>I built a small audio power amp to drive my computer
>>>>speakers. With one channel driven into 8 ohms the PP
>>>>voltage measured at 1khz was 24v before clipping.
>>>>With both channels driven it was 20v.
>>>>
>>>>I think the formula for power output was ((vpp/sqr 2)**2)/R
>>>>which would give me 36W one channel, and 25w per channel with
>>>>both driven.
>>>>(not bad for a 2n3055/mj2955 pair running at +- 15 volts)
>>>>
>>>>Is my math correct?
>>>
>>
>>

2816. Re: 18nH Inductor

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-01 02:42:33 UTC
From: Rick Karlquist N6RK <richard@karlquist.removethis.com>
Message-ID: <su37d.145195$MQ5.126691@attbi_s52>
Source record: 22898
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

Thru hole inductors were traditionally calibrated so that the inductance met
spec with 1/2 inch total length including leads, and not over a ground
plane. The smallest value of thru hole inductor I have ever seen is
27 nH. The true inductance (without the leads) of this inductor is
probably around 18 nH or less. Also, the inductance of thru hole
inductors typically drops about 5% over a ground plane.

You're probably better off winding your own air core inductor
and tweak it until your circuit is tuned where you want it.

Rick N6RK

"Joe" <nuisancewildlife@nospamearthlink.net> wrote in message
news:SxZ6d.5576$ls6.2629@newsread3.news.atl.earthlink.net...
> I have been searching the catalogs for an 18nanohenry inductor to use in

2817. Re: 18nH Inductor

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-01 03:05:30 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <avhpl0hns2sobhsr3j8v6i3kipppeccd1e@4ax.com>
Source record: 22899
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

On Fri, 01 Oct 2004 02:33:14 GMT, "John Smith"
<kd5yikes@mindspring.com> wrote:

>Or, do these transmitters require the PI network to stay within FCC limits?

Hi John,

In the old days, this question use to appear on the FCC's serious
tests - also required math too.

You already demonstrated as much with:
>If you analyze the receiving network, you will see that, if the antenna is
>50 Ohms, the receiver sees 50 Ohms. So the network appears to simply be a
>filter.
that meets the minimum technical requirment for coupling. All that
remains is the technical in-band/out-band issues (which segue into the
legal issues).

73's
Richard Clark, KB7QHC

2818. Re: 18nH Inductor

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-01 03:57:28 UTC
From: John Smith <kd5yikes@mindspring.com>
Message-ID: <IA47d.3487$Yr.1532@newsread3.news.pas.earthlink.net>
Source record: 22900
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:avhpl0hns2sobhsr3j8v6i3kipppeccd1e@4ax.com...
> On Fri, 01 Oct 2004 02:33:14 GMT, "John Smith"
> <kd5yikes@mindspring.com> wrote:
>
>>Or, do these transmitters require the PI network to stay within FCC
>>limits?
>
> Hi John,
>
> In the old days, this question use to appear on the FCC's serious
> tests - also required math too.
>
> You already demonstrated as much with:
>>If you analyze the receiving network, you will see that, if the antenna is
>>50 Ohms, the receiver sees 50 Ohms. So the network appears to simply be a
>>filter.
> that meets the minimum technical requirment for coupling. All that
> remains is the technical in-band/out-band issues (which segue into the
> legal issues).
>
> 73's
> Richard Clark, KB7QHC

I don't understand what you're driving at here, Richard. I'm saying that an analysis of the PI network shows that it serves no "matching" purpose if the antenna is 50 Ohms and the receiver wants to see 50 Ohms. Its only purpose seems to be to provide a narrow bandwidth. Does the receiver need it? Probably not, unless there are a other transmitters in near by operating on an adjacent frequency.

As for the transmitter, perhaps it needs a filter, perhaps not. But, is a PI sufficient to meet any regulations if it does require a filter? Does the transmitter not meet the regulations without it? I remember hearing that these transmitters use SAW devices. Aren't SAW devices filters? All I'm saying is that, if you can meet the FCC rules without the PI filter, you don't need the filter at all.

73,
John

2819. Re: 18nH Inductor

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-01 04:04:31 UTC
From: John Smith <kd5yikes@mindspring.com>
Message-ID: <jH47d.3490$Yr.3307@newsread3.news.pas.earthlink.net>
Source record: 22901
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

"Rick Karlquist N6RK" <richard@karlquist.removethis.com> wrote in message
news:su37d.145195$MQ5.126691@attbi_s52...
> Thru hole inductors were traditionally calibrated so that the inductance
> met
> spec with 1/2 inch total length including leads, and not over a ground
> plane. The smallest value of thru hole inductor I have ever seen is
> 27 nH. The true inductance (without the leads) of this inductor is
> probably around 18 nH or less. Also, the inductance of thru hole
> inductors typically drops about 5% over a ground plane.
>
> You're probably better off winding your own air core inductor
> and tweak it until your circuit is tuned where you want it.
>
> Rick N6RK
>
>
> "Joe" <nuisancewildlife@nospamearthlink.net> wrote in message
> news:SxZ6d.5576$ls6.2629@newsread3.news.atl.earthlink.net...
>> I have been searching the catalogs for an 18nanohenry inductor to use in
>

Has anybody checked the inductance of a zero Ohm resistor (versus lead
length)?

John (KD5YI)

2820. Re: 18nH Inductor

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-01 04:58:03 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <0jmpl05ssl3npurooailp6j2g08o13885c@4ax.com>
Source record: 22902
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

Hi John

SAW, surface acoustic wave, filters are not transmitter pass filters.

As for the need, that is simple: OF COURSE it needs filtering. Simply observing the manufacturer's requirements reveals that:
>In most cases, the output of the transmitter may need a low-pass LC filter to reduce harmonic emissions.
As for matching:
>The output of the oscillator is derived directly from the collector of the oscillator transistor. It is, therefore, very sensitive to VSWR.
This, alone, demands filtering to reduce harmonics.

As for SAW filters. It has one, and uses it in the conventional manner (not as an output filter) for frequency determination in the oscillator.

73's
Richard Clark, KB7QHC

2821. Re: 18nH Inductor

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-01 07:21:35 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <j90ql0h9qeommlk25fm06vhk1s7aeg7f6e@4ax.com>
Source record: 22903
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

On Fri, 01 Oct 2004 00:20:37 GMT, "Joe"
<nuisancewildlife@nospamearthlink.net> wrote:

>Mouser sells them too, but I don't know how to work with surface mounted
>parts.

Since the inductor is only a two "pin" component and assume you have
two PCB tracks at a suitable distance from each other, soldering
should not be a problem even without SMD experience. Using a toothpick
or some other device to keep the component steady, first solder one
end, let it cool for awhile and then solder the other end.

By the way, what type of capacitor are you using for that 8 pF ? If it
is a leaded component, it might have quite a few nH of wire
inductance. In addition to the SMD inductor, I would also recommend a
SMD capacitor, since these have a lower self inductance. Soldering it
close to the inductor should not be any harder.

I suggest that you buy some cheap SMD resistors or capacitors with the
same size package as the inductor or capacitor you are going to use
and solder these to a Vero 0.1" strip board to get some confidence in
SMD soldering, before installing the real components into the module.

Paul OH3LWR

2822. Re: 18nH Inductor

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-01 12:26:32 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cjjidonhl1@sparta.btinternet.com>
Source record: 22904
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

For anyone interested in what an 18 nano-H inductor looks like under a magnifying glass -

3 turns of 0.33 mm diameter wire, wound on a 2.2 mm diameter former, over a length of 2.0 mm.

Its self-resonant frequency is 4.6 GHz and it is tuned to 1 GHz with a capacitor of 1.3 pF. Q = 330 at 1 GHz.

Reg

2823. Re: 18nH Inductor

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-01 14:07:56 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <Swd7d.105697$9Y5.58899@fed1read02>
Source record: 22905
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

"Joe" <nuisancewildlife@nospamearthlink.net> wrote in message
news:pp17d.8983$Ki1.847@newsread2.news.atl.earthlink.net...
>
> "Gregg" <nospam@unknown.org> wrote in message
> news:a3%6d.496$223.176@edtnps89...
>> Behold, John Smith signalled from keyed 4-1000A filament:
>>
>>
>> > "Joe" <nuisancewildlife@nospamearthlink.net> wrote in message
>> > news:SxZ6d.5576$ls6.2629@newsread3.news.atl.earthlink.net...
>> >>I have been searching the catalogs for an 18nanohenry inductor to use
>> >>in
>> >> conjunction with a Radiotronix RCR-433-RP Receiver and transmitter
>> >> pair
>> >> for
>> >> a remote control I am working on.

SNIP

> Mouser sells them too, but I don't know how to work with surface mounted
> parts.
>
> Thanks,
> Joe
> KB1KVI
>
>

Joe, you're up against physics. 18nH is what you get moving a current
through just a couple of cm of straight wire. Before SMD, a microwave board
looked rather "fuzzy", with little tweaks of wire and snips of stripline. If
you want that 18 nH from one hole in a PCB to another one 01." away, then
you will have to bend that wire into a half loop. That ads inductance, so
the wire will have to be shortened some more.

SMD allows you to slap a lumped value into an exact location, without having
leads to worry about. The down side is that SMD is difficult to work with.
As usual, you have three choices: small, easy and workable. Pick any two.

Ed
wb6wsn

2824. Re: 18nH Inductor

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-01 20:17:10 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <0tidnaOH78HbJsDcRVn-qw@comcast.com>
Source record: 22906
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:cji081$nq7$1@titan.btinternet.com...
> An 18 nano-henry inductor seems, to me, to be an impractical inductor
> value.
> The length of the connecting wires will form an appreciable part of the
> inductance. There must be another way of acheiving the desired circuit
> functions.
>
> However, to find the length, diameter and number of turns to make such a
> small coil you can use program SOLNOID3 which can be downloaded in a few
> seconds, free of charge, and run immediately from the the website below.
> Try it and see what happens.
> ---
> ....
> Regards from Reg, G4FGQ
> For Free Radio Design Software go to
> http://www.btinternet.com/~g4fgq.regp
> ....
Reg,
A 1/2 turn loop of the proper dimensions might be more practical. I recall
using one that was about .5 in high between .5 centers, made of #14 wire.
(it carried 10 amps). Don't remember the exact value, but it was probably a
little more than what he is looking for.

At any rate, as you say, it is important to add the inductance of the
circuit board traces to the inductor value. BTW, the last job I was on used
402 SM inductors down to about 10 nH, but that was at 2+ GHz.

Tam

2825. Re: Are there any good EE/Ham programs for the Pocket PC?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-01 21:42:59 UTC
From: Simon <nospamsimonews@mannini.it>
Message-ID: <cjkj5d$88c$1@carabinieri.cs.interbusiness.it>
Source record: 22907

Bob D. wrote:
> Anything good out there? I tried a couple programs from Handango, and they
> stunk on ice!
>
> Bob D.
>
>

try this

http://www.dxzone.com/catalog/Software/PalmOS/index.shtml

Simon

2826. Re: power output formula

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-02 00:50:53 UTC
From: Ken Scharf <wa2mzeNOTTHIS@bellsouth.net>
Message-ID: <5Ym7d.127943$Np2.127499@bignews4.bellsouth.net>
Source record: 22908

Thanks for the explaination. Now it makes sense how a bridge
amplifier works, it combines the positive and negative
peaks to actually get twice the voltage across the load
from the same power supply voltage.

> Hi Ken,
>
> It is fine to measure peak to peak voltage but you can only use peak
> voltage to find power. Looking at a scope it is easier to find peak to
> peak than it is to find just peak as there is no line or mark where
> zero voltage is. Once you find peak to peak then just divide by 2 and
> you have peak.
>
> Consider that your positive peak goes from zero to 12 volts and back
> to zero. The negative peak goes from zero to - 12 volts and back to
> zero. Although there is 24 volts peak to peak they do not happen at
> the same time. One is half a cycle later than the other. So you can
> only use one at a time. When the positive peak is at +12 volts there
> is no negative peak at that time. No power there.
>
> Remember that the horizontal movement of the trace on the scope
> represents time. Draw a vertical line down the screen from a positive
> peak and you will see that there is nothing on the negative side at
> that time. Do the same with a negative peak. Draw a vertical line up
> and you will see that there is nothing on the positive side at that
> time.
>
> At any given time all you have to work with is either a positive or a
> negative voltage. Not both at once.
> You can use either the positive peak or the negative peak voltage (1/2
> of peak to peak).
>
> By the way, if the amplifier is not perfectly linear the positive and
> negative peaks may not be exactly the same. You could have some
> clipping on the positive peaks and not the negative peaks as an
> example.
> Then you don't have a perfect sine wave and you will get an error
> trying to find rms voltage too as the .707 only works for a pure sine
> wave.
>
> You first take 1/2 of peak to peak to find peak voltage. Then multiply
> the peak voltage by .707 to find rms voltage. Then square the rms
> voltage and divide that by the resistance. That gives power. 9 watts
> in your case.

>
> 73
> Gary K4FMX
>
> On Thu, 30 Sep 2004 20:50:49 -0400, Ken Scharf
> <wa2mzeNOTTHIS@bellsouth.net> wrote:
>
>
>>Hmm, I actually thought the power output was 1/2 of what
>>I had calculated, so I'm a little confused.
>>
>>I measured the 24v p-p using an oscilloscope (one of
>>those new fangled ones that actually let you set cursor
>>lines on the screen to bracket the waveform and it then
>>shows the voltage measurement on the screen, in this case
>>24v pp). I used an 8 ohm non-inductive 50w resistor
>>as a load (actually two of them, one per channel).
>>
>>Now if I take 24 volts and reduce it by .707 I get 16.96,
>>and if I square that 287.9, and divide that by 8
>>(e**2)/r the result is 36. OK, I'm still missing
>>something. Maybe .707 * 12v (why HALF the pp voltage?),
>>yeah that gives just about 9 watts out.
>>
>>BTW, I expected by the size of the power transformer I used,
>>and how hot the heat sinks get, that it wasn't giving more
>>than 10w per channel. And for driving a set of compact
>>speakers to just play music from my computer, that's
>>good enough.
>>
>>
>>
>>Micro MegaWatt wrote:
>>
>>>>Just a thought -- the 8 ohms is Z impedance -- not R resistance
>>>
>>>>--
>>>One Watt
>>>
>>>To steal ideas from one person is plagiarism;
>>>to steal from many is research.
>>>-- Comedian Steven Wright
>>>
>>>
>>>"Gary Schafer" <gaschafer@comcast.net> wrote in message
>>>news:bf3kl0l069nr7on6i3t62b6pcii1nep1qe@4ax.com...
>>>
>>>
>>>>If you are looking for average power out the formula is E squared/ R
>>>>Where E is rms volts. Rms voltage = .707 of peak voltage. Peak voltage

>>>>is .5 of PP.
>>>>
>>>>So your power out is around 9 watts.
>>>>
>>>>73
>>>>Gary K4FMX
>>>>
>>>>
>>>>On Tue, 28 Sep 2004 19:16:26 -0400, Ken Scharf
>>>><wa2mzeNOTTHIS@bellsouth.net> wrote:
>>>>
>>>>
>>>>
>>>>>I built a small audio power amp to drive my computer
>>>>>speakers. With one channel driven into 8 ohms the PP
>>>>>voltage measured at 1khz was 24v before clipping.
>>>>>With both channels driven it was 20v.
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>>>>>I think the formula for power output was ((vpp/sqr 2)**2)/R
>>>>>which would give me 36W one channel, and 25w per channel with
>>>>>both driven.
>>>>>(not bad for a 2n3055/mj2955 pair running at +- 15 volts)
>>>>>
>>>>>Is my math correct?
>>>>
>>>
>

2827. FA: HP 8620A sweeper 10-1300 MHz

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-02 02:49:15 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <MPG.1bc7b6ffbf2344e898972d@news-central.giganews.com>
Source record: 22909
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew,sci.electronics.equipment

Cleaning out some gear that hasn't been used enough to justify the space
it's taking up:

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3843642628

This package is helpful for general VHF/UHF testing and filter alignment
(and antenna work, if you have a directional coupler and RF probe or
power meter.) Also makes a decent tracking-generator substitute if you
have a spectrum analyzer with a max-hold feature.

Thanks! -- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

2828. Class-D RF PA

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-02 08:23:44 UTC
From: Philip de Cadenet <Philstheboss@thebbc.fslife.co.uk>
Message-ID: <4xQgx7CQWmXBFwiw@philstheboss.freeserve.co.uk>
Source record: 22910

Google does not turn up much when searching for the above.

I wonder if anyone can point me to any on-line references.

Specifically interested in HF circuit designs using switching FET's.

Tnx.

--
Philip de Cadenet G4ZOW

2829. Re: Class-D RF PA

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-02 16:34:37 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10ltm4p97fe40ec@corp.supernews.com>
Source record: 22911

Philip de Cadenet wrote:
> Google does not turn up much when searching for the above.
>
> I wonder if anyone can point me to any on-line references.
>
> Specifically interested in HF circuit designs using switching FET's.
>
> Tnx.
>
Look for class E. Class D describes an amplifier that switches faster than the signal and has the output filtered to pass DC. Class E describes an amplifier that switches _at_ the signal rate and has a filter that has finite impedance at the fundamental and infinite impedance at all the odd harmonics. The result is that the output transistor drives a square-wave voltage and sees a sinusoidal current, so all the power goes to the output with none wasted.

There have been articles in QEX and even QST -- they even explain what I just said in sufficient detail to understand it.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

2830. Re: power output formula

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-02 20:45:27 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <6n4ul01efpo5hmsge73t78b9n3f3cmhlkh@4ax.com>
Source record: 22912

On Thu, 30 Sep 2004 20:50:49 -0400, Ken Scharf
<wa2mzeNOTTHIS@bellsouth.net> wrote:

>Hmm, I actually thought the power output was 1/2 of what
>I had calculated, so I'm a little confused.
>
>I measured the 24v p-p using an oscilloscope (one of
>those new fangled ones that actually let you set cursor
>lines on the screen to bracket the waveform and it then
>shows the voltage measurement on the screen, in this case
>24v pp). I used an 8 ohm non-inductive 50w resistor
>as a load (actually two of them, one per channel).
>
>Now if I take 24 volts and reduce it by .707 I get 16.96,
>and if I square that 287.9, and divide that by 8
>(e**2)/r the result is 36. OK, I'm still missing
>something. Maybe .707 * 12v (why HALF the pp voltage?),
>yeah that gives just about 9 watts out.

Half pp because that gives you "peak power" which is a defined term
and not up for redefinition. Your P-P RMS power out into 8 ohms is
about 18W (but I've no calculator handy and my mental arithmetic these
days is very, very rusty.
--

"What is now proved was once only imagin'd." - William Blake, 1793.

2831. Re: power output formula

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-02 20:48:00 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <7t4ul0pej3pc6i8qvj02e98ohuir9luf4m@4ax.com>
Source record: 22913

On Thu, 30 Sep 2004 09:41:43 -0700, Bill Turner <noway@nohow.com>
wrote:

>Peak-to-peak voltage has no meaning when computing power. There is no
>such thing as peak-to-peak power.

Why not? p-p power is essentially "peak envelope power" isn't it? Are
you saying there's one rule for RF and another for audio??
--

"What is now proved was once only imagin'd." - William Blake, 1793.

2832. Re: power output formula

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-02 21:48:59 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <mapl7LKLJyXBFAyR@ifwtech.co.uk>
Source record: 22914

Paul Burridge wrote:
>On Thu, 30 Sep 2004 09:41:43 -0700, Bill Turner <noway@nohow.com>
>wrote:
>
>>Peak-to-peak voltage has no meaning when computing power. There is no
>>such thing as peak-to-peak power.
>
>Why not? p-p power is essentially "peak envelope power" isn't it?

No.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

2833. Re: power output formula

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-02 22:06:00 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10lu9i5tkl4vbc8@corp.supernews.com>
Source record: 22915

Bill Turner wrote:

> On Thu, 30 Sep 2004 23:32:54 GMT, Gary Schafer <gaschafer@comcast.net>
> wrote:
>
>
>>Since everyone is being a little picky, there is also no such thing as
>>RMS power. When you use RMS voltage you get average power. :>)
>
>
> ____
>
> Then what do you get when you use average voltage?
>
> IIRC for a sine wave,
>
> VRMS = .707 x peak
> VAVG = .615 x peak
>
> --
> Bill W6WRT
>
>
>
Misleading answers.

If you _really_ want to get the actual average power delivered to the load you need to measure the voltage and current, multiply them and average (or multiply them, average and measure...). Using voltages assumes that your load is resistive. Using Vrms = 0.707 * Vpeak assumes sine waves, etc.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

2834. Re: power output formula

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-02 22:12:42 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10lu9uqc04ptp24@corp.supernews.com>
Source record: 22916

Paul Burridge wrote:

> On Thu, 30 Sep 2004 09:41:43 -0700, Bill Turner <noway@nohow.com>
> wrote:
>
>
>>Peak-to-peak voltage has no meaning when computing power. There is no
>>such thing as peak-to-peak power.
>
>
> Why not? p-p power is essentially "peak envelope power" isn't it? Are
> you saying there's one rule for RF and another for audio??

A: There is such a thing as peak-to-peak power, it's just not generally very useful -- an example would be a 10Vrms sinewave drive to a 10 ohm capacitor. The instantaneous power going into the capacitor would peak at 5W and the instantaneous power going out of the capacitor would peak at 5W. If you defined delivered power as positive and returned power as negative then the peak-to-peak power would be 10W -- but you would almost never care.

B: P-P audio power is _not_ the same thing as "peak envelope power", at least not as defined in the US. Peak envelope power is average power of the RF at the peak of the envelope -- so if you are running sine-wave modulated AM with a PEP of 1500 watts into 50 ohms the peak _envelope_ power happens at an _rms_ RF voltage of 274V -- but the _peak_ power happens at the RF voltage peak of 387V, or 3kW.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

2835. Amateur radio is fake !

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-03 03:06:24 UTC
From: kaisers_sun@yahoo.com
Message-ID: <8d001dc6.0410021906.77e198fe@posting.google.com>
Source record: 22917
Cross-posted to: rec.radio.amateur.homebrew,can.vlsi

Does not exist!

2836. Re: Amateur radio is fake !

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-03 03:18:10 UTC
From: Ken Scharf <wa2mzeNOTTHIS@bellsouth.net>
Message-ID: <_aK7d.11313$DV3.2160@bignews5.bellsouth.net>
Source record: 22918
Cross-posted to: rec.radio.amateur.homebrew,can.vlsi

Brian Raab wrote:
> Does not exist!
CB radio is also bullshit.

2837. Re: power output formula

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-03 03:29:17 UTC
From: Gary Schafer <gaschafer@comcast.net>
Message-ID: <n7pul0tuqmpe45bk5jeever77suhmkols9@4ax.com>
Source record: 22919

On Sat, 02 Oct 2004 21:48:00 +0100, Paul Burridge
<pb@notthisbit.osiris1.co.uk> wrote:

>On Thu, 30 Sep 2004 09:41:43 -0700, Bill Turner <noway@nohow.com>
>wrote:
>
>>Peak-to-peak voltage has no meaning when computing power. There is no
>>such thing as peak-to-peak power.
>
>Why not? p-p power is essentially "peak envelope power" isn't it? Are
>you saying there's one rule for RF and another for audio??

The definition of peak envelope power (PEP) is: "The average power
contained in one RF cycle at the crest of the modulation envelope".
(note that the definition says "AVERAGE power" not RMS power) This is
from the FCC definition.

If your SSB transmitter puts out 1500 watts pep with voice it also
will put out 1500 watts with full carrier inserted and no modulation.
(assuming power supplies do not sag)

Same maximum rf power with the carrier only difference is that with
the carrier all the rf cycles are at full power all the time. With
voice the rf reaches the same power levels but it is turned on and off
by the voice. The power levels also vary with the amplitude of the
voice. At full modulation the power levels of the rf cycles reach the
same levels as they do with the carrier. They just don't stay there as
long.

Thus from the definition "average power contained in one rf cycle at
the crest of the modulation envelope". It tells you that the average
rf power is measured at the maximum part of the modulation peak or in
other words the maximum average power that the transmitter reaches on
voice peaks. (if only one rf cycle reaches that power level that
qualifies)

This is one reason why I say that it is important to realize that
there is no such thing as rms power. If you read the FCC definition of
pep it does not say rms power, it says average power. Lots of people
refer to power as rms power.
Lots of people get confused over this thinking pep is something else.

73
Gary K4FMX

2838. Re: Amateur radio is fake !

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-03 03:46:50 UTC
From: No Spam Here - Joe Schmo <Spammenot@Nospam.net>
Message-ID: <NDK7d.3891$Ae.3772@newsread1.dllstx09.us.to.verio.net>
Source record: 22920
Cross-posted to: rec.radio.amateur.homebrew,can.vlsi

Good troll!

"Brian Raab" <kaisers_sun@yahoo.com> wrote in message
news:8d001dc6.0410021906.77e198fe@posting.google.com...
> Does not exist!

2839. Re: Amateur radio is fake !

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-03 05:59:45 UTC
From: The Eternal Squire <eternalsquire@comcast.net>
Message-ID: <iIednTkQOb3NCMLcRVn-sQ@comcast.com>
Source record: 22921
Cross-posted to: rec.radio.amateur.homebrew,can.vlsi

It does too!

Brian Raab wrote:
> Does not exist!

2840. Re: Amateur radio is fake !

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-03 06:25:53 UTC
From: "Dr. Anton T. Squeegee" <SpammersAreVermin@dev.null>
Message-ID: <MPG.1bc93b4f8311f98f9897cd@192.168.42.131>
Source record: 22922
Cross-posted to: rec.radio.amateur.homebrew,can.vlsi

In article <8d001dc6.0410021906.77e198fe@posting.google.com>,
kaisers_sun@yahoo.com says...

> Does not exist!

I guess you don't either, now, at least where my newsreader is
concerned.

PLONK!

--
Dr. Anton T. Squeegee, Director, Dutch Surrealist Plumbing Institute.
(Known to some as Bruce Lane, ARS KC7GR,
kyrrin (a/t) bluefeathertech[d=o=t]calm -- www.bluefeathertech.com
"If Salvador Dali had owned a computer, would it have been equipped
with surreal ports?"

2841. Re: power output formula

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-03 07:17:39 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <rr8vl0hl2lt2cceku8rfn5cb1onhbkvauv@4ax.com>
Source record: 22923

On Sat, 02 Oct 2004 21:48:00 +0100, Paul Burridge
<pb@notthisbit.osiris1.co.uk> wrote:

>Why not? p-p power is essentially "peak envelope power" isn't it? Are
>you saying there's one rule for RF and another for audio??

PEP is the average power of one RF cycle at maximum modulation.

It is defined as pX in ITU-R radio regulations (RR 151).

Paul OH3LWR

2842. Re: power output formula

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-03 08:16:53 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <1xWRB0C1V7XBFAj$@ifwtech.co.uk>
Source record: 22924

Gary Schafer wrote:
>
>The definition of peak envelope power (PEP) is: "The average power
>contained in one RF cycle at the crest of the modulation envelope".
>(note that the definition says "AVERAGE power" not RMS power) This is
>from the FCC definition.
>

The definition used by OFCOM, the UK licensing authority, contains the same words: "The average power ... in one RF cycle at the crest of the modulation envelope" - but it also contains two useful loopholes.

The full wording is: "The average power supplied to the antenna by a transmitter during one RF cycle at the crest of the modulation envelope taken under normal operating conditions."

That means UK amateurs are explicitly permitted to allow for feedline loss (very handy at UHF and higher) and abnormal transients aren't counted. Given our 400W PEP output limit, we need all the concessions we can get.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

2843. Re: Amateur radio is fake !

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-03 08:49:40 UTC
From: darleyput@hotmail.com
Message-ID: <cjoejkabs1@news8.svr.pol.co.uk>
Source record: 22925
Cross-posted to: rec.radio.amateur.homebrew,can.vlsi

oh dear, what's all that stuff on the bench for?

2844. FS Siemens electrolytics

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-03 10:29:50 UTC
From: Jan Wuesten <fjz@gmx.de>
Message-ID: <cjok7q$j74$05$2@news.t-online.com>
Source record: 22926
Cross-posted to: rec.radio.amateur.misc,rec.radio.amateur.homebrew,rec.radio.amateur.equipment

Hello,

due to the lack of space I have to blow out some NOS Siemens
electrolytics.

Datecoded 1984 NOS NIB they will surely be fully useful.

They have 470 uF at 250 V, two in series will provide stable and
reliable 240uF at 500 V.

Regular price for the box of 100 pcs is EUR 80,-

Special offer for the box of 100 pcs: EUR 50,-

Thatï¿½s 50ct for a 5$ electrolytic !!!!

If you buy 10 or more boxes price will be EUR 42,- per box.

See

http://www.askjanfirst.com/kb/KON8311.jpg for a picture and

http://www.askjanfirst.com

for our homepage.

or send me an email if you need more info.

I ship worldwide, shipping upon request.

Jan

2845. Re: power output formula

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-03 12:09:42 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <hpqvl0hur050et05fogk080fh29c80d97t@4ax.com>
Source record: 22927

On Sun, 3 Oct 2004 09:16:53 +0100, "Ian White, G3SEK"
<G3SEK@ifwtech.co.uk> wrote:

>The definition used by OFCOM, the UK licensing authority, contains the
>same words: "The average power ... in one RF cycle at the crest of the
>modulation envelope" - but it also contains two useful loopholes.
>
>The full wording is: "The average power supplied to the antenna by a
>transmitter during one RF cycle at the crest of the modulation envelope
>taken under normal operating conditions."
>
>That means UK amateurs are explicitly permitted to allow for feedline
>loss (very handy at UHF and higher) and abnormal transients aren't
>counted. Given our 400W PEP output limit, we need all the concessions we
>can get.

Okay, gentlemen, I can see where you're coming from now.
Incidentally, the (UK) definition above could be construed to allow
for some really serious QRO if one takes "normal operating conditions"
to refer to *atmospheric* conditions rather than those of the station
set-up. When's the next sunspot minima? :-}
--

"What is now proved was once only imagin'd." - William Blake, 1793.

2846. Re: power output formula

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-03 12:41:28 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cjos1o$n0o$1@titan.btinternet.com>
Source record: 22928

> That means UK amateurs are explicitly permitted to allow for feedline
> loss (very handy at UHF and higher) and abnormal transients aren't
> counted. Given our 400W PEP output limit, we need all the concessions we
> can get.
>
> 73 from Ian G3SEK
==========

It's also very handy on 160 meters.

For example, if the antenna is just a 15-feet length of wire and 400 watts PEP are fed into it over 115 feet of 600-ohm single-wire transmission line, who needs concessions?

A 15-feet length of wire, all by itself, is quite efficient on 160 meters. Nearly all of the 400 watts fed into it will be radiated and the licensing regulations are not violated.

Furthermore, because a transmission line of that particular length accurately does the impedance matching, a tuner becomes redundent.

Reg.

2847. Re: Amateur radio is fake !

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-03 12:42:36 UTC
From: No Spam Here - Joe Schmo <Spammenot@Nospam.net>
Message-ID: <4uS7d.3899$Ae.3688@newsread1.dllstx09.us.to.verio.net>
Source record: 22929
Cross-posted to: rec.radio.amateur.homebrew,can.vlsi

<darleyput@hotmail.com> wrote in message
news:cjoejkabs1@news8.svr.pol.co.uk...
> oh dear, what's all that stuff on the bench for?
>
>

Must be like the Christmas decorations, just to see all the fancy lights and such! Well, that justifies the lights, now what about the rest of it? I can't believe some one could be so idiotic to suggest Ham Radio being non existent. As another poster said, I think someone just went into the kill file.

2848. Re: Class-D RF PA

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-03 13:02:08 UTC
From: Philip de Cadenet <Philstheboss@thebbc.fslife.co.uk>
Message-ID: <9pAh3zFQh$XBFwTj@philstheboss.freeserve.co.uk>
Source record: 22930

Hello Tim,

>Look for class E. Class D describes an amplifier that switches faster
>than the signal and has the output filtered to pass DC. Class E
>describes an amplifier that switches _at_ the signal rate and has a
>filter that has finite impedance at the fundamental and infinite
>impedance at all the odd harmonics. The result is that the output
>transistor drives a square-wave voltage and sees a sinusoidal current,
>so all the power goes to the output with none wasted.
>
>There have been articles in QEX and even QST -- they even explain what
>I just said in sufficient detail to understand it.
>

Thanks for the information and article links.

I have some articles fromm Sokal and Raab on E. Also familiar with Steve
Coultier's class-E web site.

I have a QEX/QST compilation CD somewhere.

Do you have any month/year references to hand?

Tnx

--
Philip de Cadenet G4ZOW

2849. Re: power output formula

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-03 13:11:01 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <3auvl0lau2j3k33e5f0bppmemnat7nqmf5@4ax.com>
Source record: 22931

On Sun, 3 Oct 2004 09:16:53 +0100, "Ian White, G3SEK"
<G3SEK@ifwtech.co.uk> wrote:

>Gary Schafer wrote:
>>
>>The definition of peak envelope power (PEP) is: "The average power
>>contained in one RF cycle at the crest of the modulation envelope".
>>(note that the definition says "AVERAGE power" not RMS power) This is
>>from the FCC definition.
>>
>
>The definition used by OFCOM, the UK licensing authority, contains the
>same words: "The average power ... in one RF cycle at the crest of the
>modulation envelope"

Hang on a minute, Ian!
I've just looked in your book and in section 6-5 you say in a passage
on Peak Envelope Power: "PEP is the RMS RF power level at the peak of
the modulating waveform." "RMS"? Which is it: RMS or AVERAGE??
Not getting confused, are you? ;-}
--

"What is now proved was once only imagin'd." - William Blake, 1793.

2850. EB63 Amplifier Kit again

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-03 13:12:27 UTC
From: Chris <REMOVEchris1379ME@bigfoot.com>
Message-ID: <%US7d.1593$M05.938@newsread3.news.pas.earthlink.net>
Source record: 22932

I hope some of you will remember but I built the EB63 kit and substituted MRF455's for the MRF454's. I was told by an RF Engineer thet 2SC2290's are often substituted and should work fine. I have them now but have a few questions. I looked at a schematic for a Texas Star DX250 because it uses 2SC2290's. I noticed that the transformers both have 3:1 ratios instead of the 4:1 in the EB63. Should I go ahead and change both of mine to 3:1? Can anyone think of anything else that should be considered here.

Thanks,
Chris

2851. Re: power output formula

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-03 13:38:08 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <Pe0vqEQADAYBFAvS@ifwtech.co.uk>
Source record: 22933

Paul Burridge wrote:
>>The definition used by OFCOM, the UK licensing authority, contains the
>>same words: "The average power ... in one RF cycle at the crest of the
>>modulation envelope"
>
>Hang on a minute, Ian!
>I've just looked in your book and in section 6-5 you say in a passage
>on Peak Envelope Power: "PEP is the RMS RF power level at the peak of
>the modulating waveform." "RMS"? Which is it: RMS or AVERAGE??

It's not a term I would use any more; but if the first sentence hadn't
tired you out, the rest of that sidebar would have told you exactly what
I meant by it.

>Not getting confused, are you? ;-}

No, just getting more careful about writing things that can be
selectively misquoted :-(

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

2852. Re: power output formula

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-03 14:49:21 UTC
From: Wes Stewart <n7ws_@_yahoo.com>
Message-ID: <ik30m0lsu3fps7v57lrkt1bui52fh3gcq2@4ax.com>
Source record: 22934

On Sun, 3 Oct 2004 09:16:53 +0100, "Ian White, G3SEK"
<G3SEK@ifwtech.co.uk> wrote:

|
|That means UK amateurs are explicitly permitted to allow for feedline
|loss (very handy at UHF and higher) and abnormal transients aren't
|counted. Given our 400W PEP output limit, we need all the concessions we
|can get.

When our FCC changed the power limit from DC input to rf output I
assumed that the feedline was part of a "distributed" amplifier output
matching network and moved my Bird sensor to the antenna feedpoint.

Feedline loss? What feedline loss? [g]

2853. What's this inductor doin'?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-03 15:08:22 UTC
From: Steve Evans <smevans@jif-lemon.co.mars>
Message-ID: <ag50m01ki8c5hiaqb80enlsfi62lbv8k2g@4ax.com>
Source record: 22935
Cross-posted to: sci.electronics.basics,rec.radio.amateur.homebrew

Hi everyone,

Below you will find my attempt to show in text-form, a circuit
fragment from a 145Mhz amplifier:

```
--------------capacitor-------------------------------transistor base
|
|
I
|
coil
|
|
|
|
-------------------------------------------------------------GND
```

The cap's value is 1nF; the inductor's is 0.4uH.
The cap (I assume) is to couple one amplifier stage into the next
(50ohm source/load) with minimal attenuation of the desired VHF
signal. But like what's the purpose of this inductor to ground??

--

Fat, sugar, salt, beer: the four essentials for a healthy diet.

2854. Re: What's this inductor doin'?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-03 15:42:30 UTC
From: et472@FreeNet.Carleton.CA
Message-ID: <cjp6l6cfc1@freenet9.carleton.ca>
Source record: 22936

Steve Evans (smevans@jif-lemon.co.mars) writes:
> Hi everyone,
>
> Below you will find my attempt to show in text-form, a circuit
> fragment from a 145Mhz amplifier:
>
>
> --------------capacitor--------------------------------transistor base
> |
> |
> I
> |
> coil
> |
> |
> |
> |
> --GND
>
> The cap's value is 1nF; the inductor's is 0.4uH.
> The cap (I assume) is to couple one amplifier stage into the next
> (50ohm source/load) with minimal attenuation of the desired VHF
> signal. But like what's the purpose of this inductor to ground??
>
>
It's there to bias the transistor.

In this case, the base of the transistor (I'm assuming bipolar so I
say base) is at DC ground. But if you just shorted the base to ground,
the signal could not get into the transistor. So you put that RF choke there,
so the base sees ground at DC, but the signal sees a relatively high
impedance.

MIchael VE2BVW

2855. Re: What's this inductor doin'?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-03 15:44:30 UTC
From: Joe Rocci <joe@roccis.com>
Message-ID: <y7V7d.1231$MU6.912@trndny08>
Source record: 22937
Cross-posted to: sci.electronics.basics,rec.radio.amateur.homebrew

The inductor keeps the transistor base at DC ground potential (probably the same potential as the not-shown emitter). This makes the transistor only conduct on positive half-cycles of the drive signal, which is a very non-linear condition that generates lot's of harmonic content. It's also common to put a little resistance in series with the inductor, which slightly reverse-biases the transistor because the RF waveform can then swing more toward the negative than the positive. A little reverse bias causes the transistor to conduct over a smaller portion of the input cycle, which enhances higher-order harmonic generation.

Joe
W3JDR

Steve Evans <smevans@jif-lemon.co.mars> wrote in message
news:ag50m01ki8c5hiaqb80enlsfi62lbv8k2g@4ax.com...
> Hi everyone,
>
> Below you will find my attempt to show in text-form, a circuit
> fragment from a 145Mhz amplifier:
>
>
> --------------capacitor-------------------------------transistor base
> |
> |
> I
> |
> coil
> |
> |
> |
> |
> --GND
>
> The cap's value is 1nF; the inductor's is 0.4uH.
> The cap (I assume) is to couple one amplifier stage into the next
> (50ohm source/load) with minimal attenuation of the desired VHF
> signal. But like what's the purpose of this inductor to ground??
>
>
> --
>
> Fat, sugar, salt, beer: the four essentials for a healthy diet.

2856. Re: What's this inductor doin'?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-03 15:52:35 UTC
From: Joe Rocci <joe@roccis.com>
Message-ID: <7fV7d.4950$ae7.1355@trndny07>
Source record: 22939
Cross-posted to: sci.electronics.basics,rec.radio.amateur.homebrew

With a 1nf coupling cap, there's no impedance matching happening because the capacitive reactance is so low that the impedances on both sides of the cap are essentially connected together.

Joe
W3JDR

John Popelish <jpopelish@rica.net> wrote in message news:416020A3.F44AFB0E@rica.net...
> Steve Evans wrote:
> >
> > Hi everyone,
> >
> > Below you will find my attempt to show in text-form, a circuit
> > fragment from a 145Mhz amplifier:
> >
> > --------------capacitor--------------------------------transistor base
> > |
> > |
> > I
> > |
> > coil
> > |
> > |
> > |
> > |
> > --GND
> >
> > The cap's value is 1nF; the inductor's is 0.4uH.
> > The cap (I assume) is to couple one amplifier stage into the next
> > (50ohm source/load) with minimal attenuation of the desired VHF
> > signal. But like what's the purpose of this inductor to ground??
>
> The inductor provides a bias path to ground, to hold the average
> transistor base voltage at zero volts, while passing the base
> current. It also forms a resonant circuit with the capacitor (and
> base capacitance) that has a peak response at some frequency,
> hopefully in the middle of the band being amplified. This resonance
> lowers the impedance at the input side of the capacitor and raises it
> at the base node, stepping the input voltage up and the input current
> down.
>
> --
> John Popelish

2857. Re: What's this inductor doin'?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-03 15:54:11 UTC
From: John Popelish <jpopelish@rica.net>
Message-ID: <416020A3.F44AFB0E@rica.net>
Source record: 22938
Cross-posted to: sci.electronics.basics,rec.radio.amateur.homebrew

Steve Evans wrote:
>
> Hi everyone,
>
> Below you will find my attempt to show in text-form, a circuit
> fragment from a 145Mhz amplifier:
>
> --------------capacitor--------------------------------transistor base
> |
> |
> I
> |
> coil
> |
> |
> |
> |
> --GND
>
> The cap's value is 1nF; the inductor's is 0.4uH.
> The cap (I assume) is to couple one amplifier stage into the next
> (50ohm source/load) with minimal attenuation of the desired VHF
> signal. But like what's the purpose of this inductor to ground??

The inductor provides a bias path to ground, to hold the average
transistor base voltage at zero volts, while passing the base
current. It also forms a resonant circuit with the capacitor (and
base capacitance) that has a peak response at some frequency,
hopefully in the middle of the band being amplified. This resonance
lowers the impedance at the input side of the capacitor and raises it
at the base node, stepping the input voltage up and the input current
down.

--
John Popelish

2858. Re: What's this inductor doin'?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-03 16:08:20 UTC
From: John Popelish <jpopelish@rica.net>
Message-ID: <416023F4.984D5202@rica.net>
Source record: 22940
Cross-posted to: sci.electronics.basics,rec.radio.amateur.homebrew

Joe Rocci wrote:

> John Popelish <jpopelish@rica.net> wrote in message
> news:416020A3.F44AFB0E@rica.net...
> > Steve Evans wrote:
> > >
> > > Hi everyone,
> > >
> > > Below you will find my attempt to show in text-form, a circuit
> > > fragment from a 145Mhz amplifier:
> > >
> > > --------------capacitor-------------------------------transistor base
> > > |
> > > |
> > > I
> > > |
> > > coil
> > > |
> > > |
> > > |
> > > |
> > > --GND
> > >
> > > The cap's value is 1nF; the inductor's is 0.4uH.
> > > The cap (I assume) is to couple one amplifier stage into the next
> > > (50ohm source/load) with minimal attenuation of the desired VHF
> > > signal. But like what's the purpose of this inductor to ground??
> >
> > The inductor provides a bias path to ground, to hold the average
> > transistor base voltage at zero volts, while passing the base
> > current. It also forms a resonant circuit with the capacitor (and
> > base capacitance) that has a peak response at some frequency,
> > hopefully in the middle of the band being amplified. This resonance
> > lowers the impedance at the input side of the capacitor and raises it
> > at the base node, stepping the input voltage up and the input current
> > down.
>
> With a 1nf coupling cap, there's no impedance matching happening because the
> capacitive reactance is so low that the impedances on both sides of the cap
> are essentially connected together.

Right. I didn't pay any attention to the given values. They produce
a resonance around 8 megahertz.

--
John Popelish

2859. Re: power output formula

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-03 16:30:45 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cjp9fl$3nl$1@hercules.btinternet.com>
Source record: 22941

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:cjos1o$n0o$1@titan.btinternet.com...
>
> > That means UK amateurs are explicitly permitted to allow for feedline
> > loss (very handy at UHF and higher) and abnormal transients aren't
> > counted. Given our 400W PEP output limit, we need all the concessions we
> > can get.
> >
> > 73 from Ian G3SEK
> ======================================
>
> It's also very handy on 160 meters.
>
> For example, if the antenna is just a 15-feet length of wire and 400 watts
> PEP are fed into it over 115 feet of 600-ohm single-wire transmission
line,
> who needs concessions?
>
> A 15-feet length of wire, all by itself, is quite efficient on 160 meters.
> Nearly all of the 400 watts fed into it will be radiated and the licensing
> regulations are not violated.
>
> Furthermore, because a transmission line of that particular length
> accurately does the impedance matching, a tuner becomes redundent.

================================

But to keep things in proportion -

To radiate 400 watts from a 15-feet antenna wire, fed via a 115-feet,
600-ohm, single-wire, overhead transmission line, would require a
transmitter power of the order of 1.4 Megawatts.

So before ordering the materials to construct such an antenna and feedline
it would be better to forget all about it!

<sorry> <smiley>

Reg

2860. Re: power output formula

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-03 16:33:46 UTC
From: Gary Schafer <gaschafer@comcast.net>
Message-ID: <a6a0m0duqmpqc85gt2ncfnhtmckihqr98p@4ax.com>
Source record: 22942

On Sun, 03 Oct 2004 06:54:50 -0700, Bill Turner <noway@nohow.com>
wrote:

>On Sun, 03 Oct 2004 03:29:17 GMT, Gary Schafer <gaschafer@comcast.net>
>wrote:
>
>>The definition of peak envelope power (PEP) is: "The average power
>>contained in one RF cycle at the crest of the modulation envelope".
>>(note that the definition says "AVERAGE power" not RMS power) This is
>>from the FCC definition.
>
>_____
>
>Right you are, but I'd like to know where the definition of average
>power comes from. Is it the IEEE?
>
>If the formal definition says VRMS x IRMS = average power, I suppose I
>could live with that, but until then, I think it equals RMS power.
>
>Sources, please.

Rms voltage and current are also called "the effective values".

If you have heard that average power is 1/2 of peak power we could
investigate why.

The rms voltage and rms current of a sine wave are found by
multiplying peak voltage by .707. Same for current.
If you multiply .707 by .707 that gives you .5 or 1/2.

1 volt peak Ac voltage times 1 volt peak / 1 ohm = 1 watt peak power.

1 volt peak times .707 = .707 rms volts. .707 rms volts times .707 rms
volts = .5 / 1 ohm = .5 watts average power.

"It takes twice the Ac peak power to provide the same amount of heat
as it does average DC power." Therefore 1/2 the peak Ac power is equal
to it's average power.

Note that rms voltage is defined as the amount of Ac voltage that will
cause the same amount of heating in a resistor as an amount of DC
voltage.

Also note that when describing rms voltage and its heating effects,
that it does not say amount of power required to do the same amount of
heating. It says the amount of rms voltage to do the same amount of
heating in a resistor. (thus, effective voltage) This is where many

get confused.

If you want to know the amount of power you must square the voltage
and divide by the resistance.
There is that .707 x .707 = .5 again for Ac power. (E squared /R)

2000 ARRL handbook 6.6 chapter 6, RMS VOLTAGES AND CURRENTS.

73
Gary K4FMX

2861. Re: What's this inductor doin'?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-03 16:45:44 UTC
From: John Fields <jfields@austininstruments.com>
Message-ID: <an90m0t78oi4cou5hh2gctk2foa009rvbe@4ax.com>
Source record: 22943
Cross-posted to: sci.electronics.basics,rec.radio.amateur.homebrew

On Sun, 03 Oct 2004 15:08:22 GMT, Steve Evans
<smevans@jif-lemon.co.mars> wrote:

>Hi everyone,
>
>Below you will find my attempt to show in text-form, a circuit
>fragment from a 145Mhz amplifier:
>
>
>--------------capacitor------------------------------transistor base
> |
> |
> I
> |
> coil
> |
> |
> |
> |
>---GND
>
>The cap's value is 1nF; the inductor's is 0.4uH.
>The cap (I assume) is to couple one amplifier stage into the next
>(50ohm source/load) with minimal attenuation of the desired VHF
>signal. But like what's the purpose of this inductor to ground??

At 145 MHz, the reactance of the cap is:

$$Xc = \frac{1}{2\pi fC}$$

$$= \frac{1}{6.28 * 1.45E8\ Hz * 1.0E-9\ F} \sim 1.1\ ohms$$

So it's likely not effecting a match to 50 ohms.

The reactance of the inductor is:

$$Xl = 2\pi fL$$

$$= 6.28 * 1.45E8\ Hz * 4.0E-7\ H \sim 364\ ohms$$

so they're not resonant at 145MHz.

Since the resonant frequency of the LC is:

```
1
f = --------------
2pi(sqrt LC)
```

it's tuned to

```
1
f = ----------------------------- ~ 7.96MHz
6.28 * sqrt (4E-7H * 1E-9F)
```

which is nowhere near 145MHz.

If that's all there is to the circuit, my guess is that it's a highpass filter with the coil doing double duty as a DC return for the base as well as a fairly high reactance load for the driver. Also, (WAG) since the transistor's input resistance and capacitance will appear effectively in parallel with the coil, it may wind up looking like something closer to 50 ohms than 364 ohms to the driver.

--
John Fields

2862. Re: President George Bush Assasinated <--- VIRUS

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-03 17:21:18 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cjpcee$a13$1@hercules.btinternet.com>
Source record: 22944
Cross-posted to: rec.radio.amateur,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

```
> This was a virus.
====================
Next time try a different strain.
```

2863. Re: Class-D RF PA

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-03 17:56:17 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10m0f9qrojm8e55@corp.supernews.com>
Source record: 22945

Philip de Cadenet wrote:

> Hello Tim,
>
>> Look for class E. Class D describes an amplifier that switches faster
>> than the signal and has the output filtered to pass DC. Class E
>> describes an amplifier that switches _at_ the signal rate and has a
>> filter that has finite impedance at the fundamental and infinite
>> impedance at all the odd harmonics. The result is that the output
>> transistor drives a square-wave voltage and sees a sinusoidal current,
>> so all the power goes to the output with none wasted.
>>
>> There have been articles in QEX and even QST -- they even explain what
>> I just said in sufficient detail to understand it.
>>
>
> Thanks for the information and article links.
>
> I have some articles fromm Sokal and Raab on E. Also familiar with Steve
> Coultier's class-E web site.
>
> I have a QEX/QST compilation CD somewhere.
>
> Do you have any month/year references to hand?
>
> Tnx
>

No, but I've only been reading them for 15 years -- that should narrow
things down a bit.

Sorry (for the lack of info, if not the smartass answer).

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

2864. Re: What's this inductor doin'?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-03 19:20:22 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cjpjdm$m2k$1@hercules.btinternet.com>
Source record: 22946
Cross-posted to: sci.electronics.basics,rec.radio.amateur.homebrew

The input impedance of the transistor is capacitive. So the inductor very likely resonates with it at the working frequency.

Reg, G4FGQ

2865. Re: What's this inductor doin'?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-03 21:00:38 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <ump0m0lt0a4pja5iha95i4pbc25h9vgcfg@4ax.com>
Source record: 22947
Cross-posted to: sci.electronics.basics,rec.radio.amateur.homebrew

On Sun, 3 Oct 2004 19:20:22 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>The input impedance of the transistor is capacitive. So the inductor very
>likely resonates with it at the working frequency.

You might be on to something here, Reg. Maybe the inductor's there to
'neutralise' the transistor's input capacitance.
The parallel tuned circuit formed by the inductor and the transistor
input capacitance would have a maximum impedance at 145Mhz if the
transistor's (capacitive) input impedance were about 3pF., which
doesn't sound far out for an RF small-signal tranny. Without that
inductor, sure there'd be no bias on the base, but additionally, the
input capacitance of the transistor will shunt away much of the VHF
input signal to ground.
Does that make sense?
--

"What is now proved was once only imagin'd." - William Blake, 1793.

2866. Re: What's this inductor doin'?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-03 23:25:05 UTC
From: Doug Smith W9WI <w9wi@invalid.invalid>
Message-ID: <41608A50.6010501@invalid.invalid>
Source record: 22798
Cross-posted to: sci.electronics.basics,rec.radio.amateur.homebrew

Steve Evans wrote:
> Below you will find my attempt to show in text-form, a circuit
> fragment from a 145Mhz amplifier:
>
> The cap's value is 1nF; the inductor's is 0.4uH.
> The cap (I assume) is to couple one amplifier stage into the next
> (50ohm source/load) with minimal attenuation of the desired VHF
> signal. But like what's the purpose of this inductor to ground??

A capacitor has a very low impedance to high-frequency (i.e., 145MHz)
signals and a very high impedance to low-frequency (i.e., DC) signals.

An inductor is the other way around - very low impedance to low
frequency (DC) signals and very high impedance to high frequency (2m).

The inductor allows DC bias currents to flow while not shunting the
desired 2m RF to ground.

The capacitor passes the 2m drive signal from the previous stage without
attenuation, while keeping the DC from the previous stage out of this one.
--
Doug Smith W9WI
Pleasant View (Nashville), TN EM66
http://www.w9wi.com

2867. Reg's programs and Windows-XP

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-03 23:41:44 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cjq2nodv1@sparta.btinternet.com>
Source record: 22799

If your computer's operating system is Windows-XP some of you may have a
problem with running my programs full-screen. If so -

Right click on the program's Icon.
Click Properties.
Click Screen.
Click Full Screen.
Click Apply.
Click OK.

and all should be fine.

If you have a lot of programs in a common folder there appears to be no way
of changing all of them to full-screen simultaneously. You will have to do
it one by one. (Unless somebody can discover an easier way.)

I have two machines, Windows-98 and Windows-XP. If a problem should arise
with any other Windows versions please let me know.

....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
....

2868. Need tip for Ungar Princess 6918 Pencil Iron

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-04 01:05:18 UTC
From: DOUGLAS SNOWDEN <SNOWDEN@peoplepc.com>
Message-ID: <il18d.2750$gs1.1054@newsread2.news.atl.earthlink.net>
Source record: 22800
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.swap

This is an 18 watt heater element that I need a tip or two
for. Or if you can lead me to a source.

TNX

Doug, N4IJ

2869. Electronics surplus / ham shops Boston ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-04 07:19:12 UTC
From: J <jmort@despammed.com>
Message-ID: <cjquc9std1@newsg1.svr.pol.co.uk>
Source record: 22801

I will be travelling to Boston in a couple of weeks. Are there any electronics surplus shops or ham radio shops that might be worth visiting?

Thanks

2870. Re: Class-D RF PA

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-04 08:24:49 UTC
From: Per-Åke Andersson <pake@extrafoi.se>
Message-ID: <cjr1ch$gn3$1@mercur.foi.se>
Source record: 22802

Philip de Cadenet wrote:

> Google does not turn up much when searching for the above.
>
> I wonder if anyone can point me to any on-line references.
>
> Specifically interested in HF circuit designs using switching FET's.
>
> Tnx.
>
Class E . Start with these:
http://www.classeradio.com/
http://www.geocities.com/k3xf/Classe.html

/Ake
If you have a big e-mail box I can send some articles.
--
Remove "extra" in my e-mail

2871. Re: Reg's programs and Windows-XP

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-04 10:53:56 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <mra2m0p71hgiubhapr72l2c39t5bochrqp@4ax.com>
Source record: 22803

On Sun, 3 Oct 2004 23:41:44 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>I have two machines, Windows-98 and Windows-XP. If a problem should arise
>with any other Windows versions please let me know.

Yes please, Reg. I'm running Win2k Pro and there are reputedly 60,000
bugs in it. Can you help? ;-)
--

"What is now proved was once only imagin'd." - William Blake, 1793.

2872. Re: Sisters Creamy Dildo 2272 [2/2]

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-04 12:01:31 UTC
From: a <a@b.com>
Message-ID: <cjre2qlrf2@enyo.uwa.edu.au>
Source record: 22804
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

In rec.radio.amateur.homebrew fvbonv@sbcglobal.net wrote:
> begin 644 SisCreamyDildo.scr

This is obviously a virus. Off to the black hole you go!
And don't anybody reply to this post neither, its follow up have been
redirected to alt.dev.null

2873. Re: Need tip for Ungar Princess 6918 Pencil Iron

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-04 12:50:32 UTC
From: "G.Beat" <nonow9mapsgb@no.comcast.spam>
Message-ID: <sGb8d.175057$D%.120213@attbi_s51>
Source record: 22805
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.swap

The radio/electronics dealer (Spectrum?) in Kenosha , WI had an extensive collection of Ungar parts.

gb

"DOUGLAS SNOWDEN" <SNOWDEN@peoplepc.com> wrote in message news:il18d.2750$gs1.1054@newsread2.news.atl.earthlink.net...
> This is an 18 watt heater element that I need a tip or two
> for. Or if you can lead me to a source.
>
> TNX
>
> Doug, N4IJ
>
>
>

2874. Re: Electronics surplus / ham shops Boston ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-04 12:57:43 UTC
From: Al <no.spam@wanted.com>
Message-ID: <no.spam-8F1452.08542004102004@news.verizon.net>
Source record: 22806

In article <cjquc9std1@newsg1.svr.pol.co.uk>,
"J" <jmort@despammed.com> wrote:

> I will be travelling to Boston in a couple of weeks. Are there any
> electronics surplus shops or ham radio shops that might be worth visiting?
>
> Thanks
>
>
>

MIT Flea Market on the third Sunday of Oct. Check the web for details.

Al

2875. Re: Class-D RF PA

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-04 14:39:50 UTC
From: Philip de Cadenet <Philstheboss@thebbc.fslife.co.uk>
Message-ID: <yh2iVCD2CWYBFwb3@philstheboss.freeserve.co.uk>
Source record: 22807

Hello Ake, and others who have responded directly

> Class E . Start with these:
>http://www.classeradio.com/
>http://www.geocities.com/k3xf/Classe.html
>
>/Ake
>If you have a big e-mail box I can send some articles.

I'm familier with Steve Couliers class-E site.

The 40m amp was interesting.

Please feel free to mail me any other articles you have to hand.

Many thanks.
--
Philip de Cadenet G4ZOW

2876. Re: Reg's programs and Windows-XP

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-04 15:34:13 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cjrqhlndb1@hercules.btinternet.com>
Source record: 22808

"Paul Burridge" <pb@notthisbit.osiris1.co.uk> wrote in message
news:mra2m0p71hgiubhapr72l2c39t5bochrqp@4ax.com...
> On Sun, 3 Oct 2004 23:41:44 +0000 (UTC), "Reg Edwards"
> <g4fgq.regp@ZZZbtinternet.com> wrote:
>
> >I have two machines, Windows-98 and Windows-XP. If a problem should
arise
> >with any other Windows versions please let me know.
>
> Yes please, Reg. I'm running Win2k Pro and there are reputedly 60,000
> bugs in it. Can you help? ;-)

==========

I've never heard of Win2K Pro.

I understand DOS emulator programs are very good - if you can find a DOS
emulator program which will run under Win2K Pro.

Just don't throw away your old computers.

Reg.

2877. Re: power output formula

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-04 17:45:56 UTC
From: Gary Schafer <gaschafer@comcast.net>
Message-ID: <pp23m0hv1rn9e3bf483squkvk49hpj9ajn@4ax.com>
Source record: 22809

On Mon, 04 Oct 2004 07:54:11 -0700, Bill Turner <noway@nohow.com>
wrote:

>On Sun, 03 Oct 2004 16:33:46 GMT, Gary Schafer <gaschafer@comcast.net>
>wrote:
>
>>Rms voltage and current are also called "the effective values".
>
><large snip>
>
>_____
>
>You missed my question. Who defines these terms? I know that RMS,
>average and effective are often used interchangeably, but who or what
>organization says there is "no such thing as RMS power", and why?

No I didn't miss your question. I thought I gave you enough
information so that you could figure out the "why" yourself.

I don't know of any organization that says "there is no such thing as
rms power". What would be the point. That would be like formally
declaring "water doesn't run uphill", since there is no proof or
evidence that water runs uphill.

I also don't know of any organization that says there is such a thing
as rms power although you will often find it referred to in many
articles and advertisements. Even some of the older ARRL handbooks may
call it rms power but I don't think you will find that in the newer
versions.

Most any AC circuit theory will explain how values of a sine waves are
found and the relation of those values. The reference I quoted from
the ARRL handbook does very nicely at explaining it. It is worth a few
minutes to read. Only a couple of paragraphs will get you there. (you
will see the absence of rms power mentioned)

The thing to consider is that once you multiply an rms value by
another rms value the result is no longer an rms value.
If it were then you could use any of the rms factors to convert it to
peak etc.

Consider 1 volt peak x .707 = .707 volts rms. .707 volts x .707 volts
= .5. Divide that by 1 ohm and you have 1/2 watt.

Using rms factors, convert the rms values to peak. .707 volts x 1.414
= 1 volt peak. OK.

Now try and find peak power like you would find peak voltage from a known rms value.
Do that with the power value that you want to call rms power and you have .5 x 1.414 = .707 watts. Not the 1 watt peak you were looking for.

73
Gary K4FMX

2878. Re: 18nH Inductor

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-04 18:33:26 UTC
From: k7itm@aol.com
Message-ID: <3200347.0410041033.9a87e75@posting.google.com>
Source record: 22810
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

"Joe" <nuisancewildlife@nospamearthlink.net> wrote in message
news:<pk17d.6019$ls6.4814@newsread3.news.atl.earthlink.net>...
> "Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
> news:cji081$nq7$1@titan.btinternet.com...
> > An 18 nano-henry inductor seems, to me, to be an impractical inductor
> value.

;-) You just aren't working with small enough, high enough frequency
circuits, Reg.

3 turns of 28AWG on a 4-40 (USA) screw (remove the screw, of course)
will give you about 18 nH. Unloaded Q at 440MHz will be around 200.
>
> The link to the schematic is:
> http://www.radiotronix.com/downloads/433_pair.pdf

Easy enough to use SMT components soldered to a piece of copper-clad
for a ground plane. Just put down the two caps and the shunt resistor
"tombstone" style, one end soldered to the ground plane and the other
up in the air, separated by enough distance to put the series coil and
resistor between them. You can keep the parasitic L and C very low
indeed this way. You can also use tiny squares of copper-clad glued
down to the ground plane as tie points.

It's also possible to mechanically make a simple circuit like this on
copper-clad using surface mount parts, by scribing lines with
something like an X-Acto knife and removing strips of copper. In this
case, I could see scribing four lines across the board, separated by
about 1/16 inch, and removing two copper strips, one from between the
first and second scribe, and one from between the thrid and fourth
scribe. That leaves a trace about 1/16 inch wide. Cut gaps in the
trace, about 1/16 inch long, where you want to solder down series
components. Solder shunt components across from the trace to the
copper ground plane. Bridge across the trace with a copper strap to
connect the two gound plane sides, with the bridge up in the air over
the trace. Nice to have a ground plane on the opposite side, with
some holes and wires to connect to the top-side ground planes, but not
necessary. I'm thinking 0805 parts with the sizes I mentioned...make
things slightly larger for 1206. You can make the trace be a 50 ohm
transmission line if you want, by sizing things right.

Cheers,
Tom

2879. Re: power output formula

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-04 21:45:13 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <cjsge6$1nr$1@newshost.mot.com>
Source record: 22811

Yadda, yadda, yadda

The term "RMS POWER" while not technically correct for anything practical is tossed about and I suspect it is 'meant' to mean true or average power as generally understood by those schooled in the field. One of the reasons for formal training (or understanding of that training) is so we have terminology which we have in common. One word or phrase relates to the same concept for everyone in the discussion.

"Peak-to-peak power" is quite meaningless. P-P voltage and current can be measured, but power is a second order quantity requiring voltage and current and an in-phase component as well...and multiplication of these quantities (that's what makes it second order). This takes care of the phase relationships and when the voltage goes negative, the current does (the in-phase component does) and two negatives make a positive and you again have positive power. There is NO amount of voltage or current which occurs which is the P-P value. This is only in the eye of the beholder who chooses to relate two parts of a waveform which occur at different times.

Question:

In a pulsed situation like a common bridge rectifier, capacitor input filter DC supply, can the true power be determined by measuring the Irms and Vrms (on the AC side) and doing P = Irms X Vrms ???

Anybody sure enough to say???

--
Steve N, K,9;d, c. i My email has no u's.

2880. Frequency stability in vacuum tube VFOs, how do you do it?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-05 01:36:33 UTC
From: Robert Casey <wa2ise@ix.netcom.com>
Message-ID: <4161FA9D.6070100@ix.netcom.com>
Source record: 22812

The local oscillator in "All American 5ive" vacuum tube AM radios all drift an annoying amount at the upper end of the AM BC MW band. The oscillator would be running at about 2MHz, and warm up drift (from cold start to about an hour being on) is typically 20KHz. Enough to make that station at 1520 tune itself out. AM radios used a hartley style oscillator using the equivalent of a triode with its plate to B+, grid capacitivitly coupled to the LC osc tank, and cathode connected to a secondary winding on the LC osc tank. Usually an air variable cap, and fixed inductor wound on a cardboard coil form.

VFO's for ham radio work would involve higher frequencies, and I would think that they not drift anywhere as bad as the AM radios did. I looked at a few tube VFO schematics, and I don't see anything that different from the AM radio hartley osc circuit. So how did they avoid drift, or were you expected to leave your VFO on all the time?

2881. Re: Frequency stability in vacuum tube VFOs, how do you do it?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-05 01:45:36 UTC
From: Ralph Mowery <rmowery28146@earthlink.net>
Message-ID: <41n8d.3781$gs1.332@newsread2.news.atl.earthlink.net>
Source record: 22813

> The local oscillator in "All American 5ive" vacuum tube
> AM radios all drift an annoying amount at the upper
> end of the AM BC MW band. The oscillator would be
> running at about 2MHz, and warm up drift (from cold
> start to about an hour being on) is typically 20KHz.
> Enough to make that station at 1520 tune itself out.
> AM radios used a hartley style oscillator using the
> equivalent of a triode with its plate to B+, grid
> capacitivitly coupled to the LC osc tank, and cathode
> connected to a secondary winding on the LC osc tank.
> Usually an air variable cap, and fixed inductor wound
> on a cardboard coil form.
>
> VFO's for ham radio work would involve higher frequencies,
> and I would think that they not drift anywhere as bad as
> the AM radios did. I looked at a few tube VFO schematics, and
> I don't see anything that different from the AM radio
> hartley osc circuit. So how did they avoid drift, or were
> you expected to leave your VFO on all the time?

Slightly beter components, time to use and change some capacitors to
compensante for the drift, and some stayed on all the time. Voltage
regulation was usually used also.

>

2882. Re: Frequency stability in vacuum tube VFOs, how do you do it?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-05 02:18:03 UTC
From: artie <artie.m@gmail.com>
Message-ID: <041020041918033915%artie.m@gmail.com>
Source record: 22814

Voltage regulator tubes, matching components for thermal drift, solid (physical) construction, for starts. Shielding not only for noise, but also to minimize thermal drift. If you didn't leave the whole thing on all the time, maybe you left the filaments on. If you actually turned the thing off, be ready to wait an hour or so after power up for things to settle down.

Collins used different techniques -- a permeability tuned oscillator among them.

Growing up, a bunch of us were hams, living in a few block radius. One character was really proud of the VFO he'd built; very solid construction, quality parts, the whole 9 yards.

He had it sitting on a shelf that was mounted to an outside wall of his house. We'd go pound on the outside of the wall, and you could hear the thing wobble like mad.

In article <4161FA9D.6070100@ix.netcom.com>, Robert Casey <wa2ise@ix.netcom.com> wrote:

> The local oscillator in "All American 5ive" vacuum tube
> AM radios all drift an annoying amount at the upper
> end of the AM BC MW band. The oscillator would be
> running at about 2MHz, and warm up drift (from cold
> start to about an hour being on) is typically 20KHz.
> Enough to make that station at 1520 tune itself out.
> AM radios used a hartley style oscillator using the
> equivalent of a triode with its plate to B+, grid
> capacitivitly coupled to the LC osc tank, and cathode
> connected to a secondary winding on the LC osc tank.
> Usually an air variable cap, and fixed inductor wound
> on a cardboard coil form.
>
> VFO's for ham radio work would involve higher frequencies,
> and I would think that they not drift anywhere as bad as
> the AM radios did. I looked at a few tube VFO schematics, and
> I don't see anything that different from the AM radio
> hartley osc circuit. So how did they avoid drift, or were
> you expected to leave your VFO on all the time?
>

2883. Re: Frequency stability in vacuum tube VFOs, how do you do it?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-05 02:21:00 UTC
From: TOM <noname@noprovider.nodomain>
Message-ID: <gyn8d.4353$cd1.1290@trnddc03>
Source record: 22815

Mostly better design and charericterization. The VFO's designs
were tested for temperature drift, and temperature-compensating
capacitors were made part of the design. I think a few radio VFO's
were actually tweaked as part of the unit test for temperature stability,
but not sure. It would have been expensive.

The capacitors are coded:

N - for negative temperature coefficient
P - for positive temperature coefficient
NP0 - for no temperature coefficient.

So for example, N750 would have -750 ppm of capacitance change
per degree C.

The other challenge was good inductor design, since they can be
temperature dependent as well.

-- Tom

"Robert Casey" <wa2ise@ix.netcom.com> wrote in message
news:4161FA9D.6070100@ix.netcom.com...
> The local oscillator in "All American 5ive" vacuum tube
> AM radios all drift an annoying amount at the upper
> end of the AM BC MW band. The oscillator would be
> running at about 2MHz, and warm up drift (from cold
> start to about an hour being on) is typically 20KHz.
> Enough to make that station at 1520 tune itself out.
> AM radios used a hartley style oscillator using the
> equivalent of a triode with its plate to B+, grid
> capacitivitly coupled to the LC osc tank, and cathode
> connected to a secondary winding on the LC osc tank.
> Usually an air variable cap, and fixed inductor wound
> on a cardboard coil form.
>
> VFO's for ham radio work would involve higher frequencies,
> and I would think that they not drift anywhere as bad as
> the AM radios did. I looked at a few tube VFO schematics, and
> I don't see anything that different from the AM radio
> hartley osc circuit. So how did they avoid drift, or were
> you expected to leave your VFO on all the time?
>

2884. Re: power output formula

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-05 03:45:05 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cjt5c1$1f3$1@hercules.btinternet.com>
Source record: 22816

Ask a sensible question.
What is "true power"
Where in the circuit is it located.

2885. Re: power output formula

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-05 07:11:19 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <zPxw+pFXkkYBFAJx@ifwtech.co.uk>
Source record: 22817

Steve Nosko wrote:
>
>The term "RMS POWER" while not technically correct for anything
>practical is tossed about and I suspect it is 'meant' to mean true or
>average power as generally understood by those schooled in the field.

It was somewhat in that sense that I was trying to use the term about 15 years ago. But I was shot down for a number of reasons... with all of which, I now agree.

1. When used without any qualifier, "power" always means the value averaged over one or more complete cycles, so it is redundant and confusing to add "RMS" where in fact no qualifier is necessary. This is the strongest technical reason for not using it.

2. I was using "RMS power" to mean exactly what Steve says: "average power as generally understood by those schooled in the field", or "power averaged by the correct use of the RMS method". However, that attempt to condense a much bigger concept into two words just does not work.

It's even worse than a simple failure to communicate. The mere mention of "RMS power" is guaranteed to hijack the whole discussion, and the point you actually wanted to make will be lost forever.

3. Any term that is used in the "hi-fi" industry - even by the so-called "good guys" - is automatically tainted.

In the end, I decided that using "RMS power" was causing *many* more bad effects than good... and after 15 years, I'm still being punished for it :-)

Those are the reasons why I now come down firmly on the side of "just call it power".

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

2886. Re: Reg's programs and Windows-XP

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-05 10:13:21 UTC
From: remove_ok1sip@atlas.cz
Message-ID: <5f5159fa.0410050213.765f7ae6@posting.google.com>
Source record: 22820

Paul Burridge <pb@notthisbit.osiris1.co.uk> wrote in message
news:<mra2m0p71hgiubhapr72l2c39t5bochrqp@4ax.com>...
> Yes please, Reg. I'm running Win2k Pro and there are reputedly 60,000
> bugs in it. Can you help? ;-)

Hi Paul,
connect to Micro$oft Update and dowload all patches, service packs and
improvements the server will find for you. This may remove about
25,000 your bugs. You will get some 48,000 brand new bugs instead and
for free !! ;-)

But, Paul, don't worry. Remember the programmer's axioma:
1/ Every computer program contains at least one bug.
2/ Removing of one bug from a program merges at least two other bugs
into the program.
3/ So-called debugging is a process of making a chain of bugs, which
performs the operations originally required.

Thanks to the axiom 3, your Win2k Pro probably performs all functions
as needed. Only a few people know that the process is performed by
long chains of bugs ...

Not satisfied yet ? So AVOID APPROACHING TO COMPUTERS FOR THE REST OF
YOUR LIFE ! :-}

BR from Ivan OK1SIP

P.S.: TNX to Reg for his superb collection of programs.

2887. OT: Monitor woes

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-05 11:52:14 UTC
From: mike@corn2.freeserve.co.uk
Message-ID: <416286c0.178933668@news.freeserve.net>
Source record: 22821

Hi Folks,
I guess this is OT but I really don't know where else to ask for the info.

I have, no, had a very useful svga monitor with a 9" screen sitting on my shack bench for various AR related uses until it started playing silly bu**ers recently.

When it is initially turned on, the display is clean and sharp but after about 30 mins or so the display starts dimming and going out of focus. There are no nasty noises or smells coming from it and AFIK there has been no smoke released.

Is this a terminal case or not?

If not, what should I be looking for? an R going High, a C leaking or whatever. Any help appreciated, I have no TV/monitor service experience but I'm used to HV circuits and Homebrewing. I have a 20Mhz dual trace scope, DMM and Analog VM (20k ohm V) available for test equipment.

I suppose I should tell what model it is just in case its a stock fault. Its a Smile 9" Svga monitor, Part Number CB0913DL. There is also the number KFC CB0913DL on the manufactures label. Could this be from a Kentucky Fried Chicken, Point of Sale Till ?

Thanks for your time reading this and I hope its not too OT.

73 Mike W, G8NXD qthr

2888. Re: Frequency stability in vacuum tube VFOs, how do you do it?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-05 12:12:19 UTC
From: n2ey@aol.comSPAMNO
Message-ID: <20041005081219.06972.00000955@mb-m03.aol.com>
Source record: 22822

In article <4161FA9D.6070100@ix.netcom.com>, Robert Casey
<wa2ise@ix.netcom.com> writes:

>I looked at a few tube VFO schematics, and
>I don't see anything that different from the AM radio
>hartley osc circuit. So how did they avoid drift, or were
>you expected to leave your VFO on all the time?
>
Several ways:

1) Better components - Drift of the kind being discussed is mostly due to thermal effects. Capacitors, inductors and even resistors change value when heated, and the component selection makes a *big* difference in stability. For example, a variable capacitor with aluminum plates is inherently more affected by temperature than one of similar construction with brass plates.

2) Better design - Reducing heat reduces thermal drift. High C is usually less drifty than low C. A high gain tube that is loosely coupled to the tank circuit is usually more stable than a low gain tube tightly coupled to the tank circuit. There's lots more, of course.

3) "Weakest link" - As sources of drift are corrected, sources which were once negligible become dominant. Often a design will go through several revisions as sources of drift are identified and corrected.

4) Compensation - When all else is done, the use of thermal compensating caps can reduce drift to very low levels.

Remember too that "stable" is user-defined. A rig that drifts 300 Hz on each transmission might be considered "very stable" on AM or FM, barely acceptable on CW, and useless on SSB or FSK/PSK

73 de Jim, N2EY

2889. Re: Frequency stability in vacuum tube VFOs, how do you do it?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-05 13:27:28 UTC
From: nospam@nouce.bellatlantic.net
Message-ID: <hl45m0dhl9mvosedf87j1b4sbkq6bka58s@4ax.com>
Source record: 22823

On Tue, 05 Oct 2004 01:36:33 GMT, Robert Casey <wa2ise@ix.netcom.com>
wrote:

>The local oscillator in "All American 5ive" vacuum tube
>AM radios all drift an annoying amount at the upper
>end of the AM BC MW band. The oscillator would be
>running at about 2MHz, and warm up drift (from cold
...snippage>>>

I tested an RCA AA5 I have here (uses battery tubes) and
a modified Hallicrafters S120 (also basically AA5) and neither drifted
very far on turn on. The worst was the RCA! at 1.8khz in the first 5
minutes. The RCA drifted 3khz in the first 5 minutes from cold start.
However once both had a chance to fully warm up (20minutes)
the drift was in the less than 100hz region. Generally most AA5
radios for AM broadcast reperesent the lowest possible cost designs
with the least consideration for circuit performance above a minimal
level.

Tubes experence fairly large initial warm up temperature changes
and the surrounding circuits often do as a result of that. When you
consider that your going from 20c to greater than 50C in the first few
minutes there is no surprize there (transistor VFOs would be hard
pressed for that great a temperature change too!).

The solution is manifold. use components that experience minimal
dimensional or other characteristic change for temperature. Coils
and capacitors are the biggest influence here.

The AA5 you have uses a hartly osc and the common circuit has less
than 4 components in the VFO, namely the tube, variable capactor,
a padder cap (vfixed usually) and the coil (slug tuned). Lets look at
each. In the design the tube has changes at warm up of both
mechanical, things move such as cathode to grid spacing when heated
and electrical its operating point shifts as the tube reaches operting
temperture. The mechanical tuning cap, while likely the most stable
device if heated enough the aluminum plates will deform and posible
change spacing, there may be other forces from the chassis mounting
as that warms too. The padder cap is usually a cheap component
in AA5s and the typical part used has a poor temperature coefficienct.
Lastly the coil, this can also be a big factor as the coiled wire can
mechanically change dimension from heating but, you also have a
powered iron or ferrite tuning slug that also has a temperature
coefficient and the cheaper (older) materials can really be poor
with temperature. I might add that some of the AA5s coils were wax
impregnated and the materials used can also experience dimensional

changes while heating up causing the coild to deform. I may add
that operating voltage changes can influence stability and drift.
Tubes are no worse than transistors, just warmer. What differes is
that there are two sources of voltage sensitive drift in tubes, The
heater(filament) voltage must be stable as it affects tube operating
characteristices such as gain and also the environment due to heating
of the area around the tube. The other votage that must be stable is
the B+ (high votage usually but can be anywhere from 12 to 300v
depending on tube and circuit).

Hopefully you can see that VFO design superficially can be very simple
but has many details that can influence stability. It is possible to
design a tube (or transistor) VFO that is very stable but it requires
good components, temperature compensation and good mechanical
construction.

If you want stability in your AA5... Better cooling most ventilated
very poorly. Other things, put the components away from the tube
[but not too far ;)] to minimize heating effects. Regulate the
voltages. The latter is harder as the average AA5 uses a series
heater string that has a sometime shakey warmup. Also the AA5
uses a poor supply in the form of a 35w4 half wave rectifier that has
to warm up to work (it's a tube too!) and the lack of good power
supply filtering (add to this the caps are old!!).

As a experiment with tubes:
The Hallicrafters was a basket case when I got it so modiflying it was
a reasonable thing to do (just to make it work) lest the purist
classic radio people protest. First was converting from live chassis
(typical AA5 off the mains) by adding a transformer to supply 120V for
rectifier and 6.3v for the heaters. Rewired the heaters for 6.3V and
change the 50C5 to a 6AQ5 I had on hand (rewire socket). This radio
used a selenium rectifier which was bad so silicon bridge rectifier
was used with new 100uf caps as filter to get clean 150v B+. Since
If selectivity was minimal I added an old 6KHZ mechanical filter and a
second IF amp tube (5899 subsub mini) to fix that and and a bit of
gain. Replace a dozen poor quality and just plain bad caps in various
points including the Local osc section (VFO). I also added a 6AR5
bfo/product detector for ssb operation as the original BFO design was
poor at best. It was a major rebuild with many circuit changes mostly
for fun. However the 6BE6 and the Hartly local osc (VFO) was
retained to keep the tuning dial something near calibrated. A stable
VFO using tubes was straghtforward using good quality parts (both the
BFO and the LO are LC osc). The result is a stable (after warm up)
general purpose reciever that I use for 3885KHz AM and occasional 75m
SSB listening.

Allison
KB!gmx

2890. Re: OT: Monitor woes

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-05 14:12:38 UTC
From: AB2RC <AB2RC@localhost.localdomain>
Message-ID: <slrncm5b9t.7qb.AB2RC@localhost.localdomain>
Source record: 22824

On 2004-10-05, Mike W <mike@corn2.freeserve.co.uk> wrote:
> Is this a terminal case or not?

It's a monitor -- of course it is a "terminal" case :)

>
> If not, what should I be looking for? an R going High, a C leaking or
> whatever. Any help appreciated, I have no TV/monitor service

most likely a V going low.

--

Alex / AB2RC

2891. 2 Meter Preamp for SSB use

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-05 15:53:49 UTC
From: GeorgeF <av8tor@licensed4funREMOVEBEFOREFLIGHT.com>
Message-ID: <hsz8d.5596$gs1.3395@newsread2.news.atl.earthlink.net>
Source record: 22825

Looking for plans for a 2 meter preamp which I intend on using for 144MHz SSB/CW work. I would like it if the plans should also be able to handle 100 Watts from the tranceiver.

Thanks
George

2892. Re: Frequency stability in vacuum tube VFOs, how do you do it?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-05 16:27:10 UTC
From: Bob <balbert@access1.net>
Message-ID: <3rGdnbKVtsfcVv_cRVn-sg@hawaiian.net>
Source record: 22826

Actually the drift is thermal not due to voltage variations. Voltage regulation is not an issue these days with the power line usually holding to better than one percent.

In order to halt the drift, you need to replace some of the tuning capacitance with negatifve temperature coefficient capacitors. How much you use will depend on how much the drift is for a given temperature variation. It drifts more at the high end because there is less capacitance involved, causing a small variation to make the frequency move farther.

You can start with a negative temperature coefficient capacitor of, say 10 pF across the tuning capacitor and see if you can still align the local oscillator. Mount the capacitor as close to the source of heat (the tube) as possible and see what happens.

I have compensated many oscillators for thermal drift. You can also see if perhaps the existing components are being heated by a power resistor and if possible increase the distance. There is a bit of art involved but it's all pretty basic.

The big problem, is where can you buy negative temperature coefficient capacitors? They used to be plentiful but I don't know about these days.

Bob

2893. Re: power output formula

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-05 17:13:54 UTC
From: Gary Schafer <gaschafer@comcast.net>
Message-ID: <ifl5m0tj4f3cnoacbkpg7gdt135c3ae2fp@4ax.com>
Source record: 22827

On Tue, 05 Oct 2004 08:53:31 -0700, Bill Turner <noway@nohow.com>
wrote:

>On Mon, 04 Oct 2004 17:45:56 GMT, Gary Schafer <gaschafer@comcast.net>
>wrote:
>
>>Consider 1 volt peak x .707 = .707 volts rms. .707 volts x .707 volts
>>= .5. Divide that by 1 ohm and you have 1/2 watt.
>
>Ok so far.
>
>
>>Using rms factors, convert the rms values to peak. .707 volts x 1.414
>>= 1 volt peak. OK.
>
>OK so far.
>
>
>>Now try and find peak power like you would find peak voltage from a
>>known rms value.
>>Do that with the power value that you want to call rms power and you
>>have .5 x 1.414 = .707 watts. Not the 1 watt peak you were looking
>>for.
>
>You used the wrong factor. To convert RMS power to peak power (sine
>wave only) the factor is 2, not 1.414. The peak power in your example
>is actually one watt, just as expected.

Your answer is what my point is all about. 2 is not an rms factor.
Nowhere do you use 2 to find an rms value. But 2 is used when
associated with average values.

As Steve said in another post, power is often referred to as rms power
as it is derived from rms voltage. But it is important to realize that
there is a difference even though it may not be stated.

If it were really rms power then you should be able to find peak power
by multiplying by 1.414 as you do with rms voltage. But that doesn't
work because power is not an rms value.

73
Gary K4FMX

2894. Re: Frequency stability in vacuum tube VFOs, how do you do it?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-05 18:15:18 UTC
From: Joe McElvenney <ximac@btinternet.com>
Message-ID: <VA.00000076.0020dcf6@btinternet.com>
Source record: 22828

Hi,

At the high end of the AM band, the oscillator capacitor is
at its lowest capacitance (almost fully un-meshed). So, any
variations in circuit capacitance due to tube electrode
dimensions, capacitors with non-zero tempcos or similar
happenings in the oscillator coil will have a greater effect than
at the low frequency end.

For this reason, a stable LC-tunable VFO would not normally
be designed to tune the 3:1 ratio that an AM local oscillator is
expected to.

Cheers - Joe

2895. Re: power output formula

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-05 19:03:48 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cjur6k$3c7$1@sparta.btinternet.com>
Source record: 22829

People who use the term "rms power" are braggarts, attempting to show-off how psuedo scientifically and engineering-ly educated, politically-correct, and clever they are.

Whereas all they accomplish is to display to the mostly sensible world their abysmal ignorance.

Articles in Audio Hi-Fi magazines fall below even lower standards of silly journalism. There ought to be a law against it !

There's only one sort of "power" and that is simply "power". I have serious doubts about such vague and indeterminate notions as "reflected" power.

In all my experience I have never found any use for such terms.

Reg.

2896. Re: 2 Meter Preamp for SSB use

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-05 19:03:50 UTC
From: Eamon Skelton <Xnospam@oceanfree.net>
Message-ID: <2sg9jgF1l5o2dU1@uni-berlin.de>
Source record: 22830

GeorgeF wrote:
> Looking for plans for a 2 meter preamp which I intend on using for
> 144MHz SSB/CW work.

There are lots of published designs for low noise
preamps for 2M. The Mitsubishi MGF1302 seems to
be the most popular device for homebrew VHF/UHF
preamps. I use the MGF1302 in my preamps for
2M, 70CM and 23CM.

Use your favourite search engine to search for:
low noise GaAsFET preamp for 2M

See YU1AW's excellent designs at:
http://www.qsl.net/yu1aw/engl.htm

See W5UN's MGF1302 preamp at:
http://web.wt.net/~w5un/preampbx.gif
It must be very good because he can sometimes
hear my puny 250W to a single 9 element Yagi
on EME.

> I would like it if the plans should also be able
> to handle 100 Watts from the tranceiver.

For high power on VHF, you should use good
quality co-ax relays and a sequencer.

The ARRL handbook has some good designs for
2M preamps and an RX/TX sequencer.

73, C U on 2M.

Ed. EI9GQ.

--
Remove 'X' to reply via e-mail.
Linux 2.6.7

2897. Re: Frequency stability in vacuum tube VFOs, how do you do it?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-05 21:30:51 UTC
From: Wim Ton <wimton@blueyonder.co.uk>
Message-ID: <foE8d.163915$U04.9751@fe1.news.blueyonder.co.uk>
Source record: 22831

> VFO's for ham radio work would involve higher frequencies,
> and I would think that they not drift anywhere as bad as
> the AM radios did. I looked at a few tube VFO schematics, and
> I don't see anything that different from the AM radio
> hartley osc circuit. So how did they avoid drift, or were
> you expected to leave your VFO on all the time?

Some VFO's e.g. in the BC221 use a compensation
coil, moved by a bi-metal, inside the tuning coil as temperature
compensation.

Wim

2898. Re: OT: Monitor woes

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-05 22:06:33 UTC
From: Allodoxaphobia <bit-bucket@config.com>
Message-ID: <slrncm66n9.fi.bit-bucket@shell.config.com>
Source record: 22832

On Tue, 05 Oct 2004 11:52:14 GMT, Mike W hath writ:
> Hi Folks,
> I guess this is OT but I really don't know where else to ask for the
> info.

sci.electronics.repair

2899. Re: power output formula

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-06 00:07:17 UTC
From: n2ey@aol.comSPAMNO
Message-ID: <20041005200717.26733.00000727@mb-m13.aol.com>
Source record: 22833

In article <cjur6k$3c7$1@sparta.btinternet.com>, "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> writes:

>People who use the term "rms power" are braggarts, attempting to show-off
>how psuedo scientifically and engineering-ly educated, politically-correct,
>and clever they are.
>
>Whereas all they accomplish is to display to the mostly sensible world their
>abysmal ignorance.
>
>Articles in Audio Hi-Fi magazines fall below even lower standards of silly
>journalism. There ought to be a law against it !
>

While it's a misnomer, there's a reason the audio folks use the term "RMS
power".

Back when stereo was hi-fi, amplifiers were simply rated in watts output. The
test method was simple: you fed a sine-wave audio tone into the amp and
measured the continuous output power into a matched resistor load. A "50 watt"
amplifer could deliver 50 watts of audio power continuously.

Then a bunch of things happened.....

First off, there was stereo. Audio amplifiers became 2 channel, usually with a
common power supply. Manufacturers found they could get more power if only one
channel was operating - particularly if the power supply was skimpy to begin
with. So they tested that way, and doubled the result.

Then came solid state. Some early designs could deliver amazing levels of power
into very low impedance loads - for a short time, anyway. So the idea was born
to test the amps by feeding a pulsed signal rather than a continuous tone, and
using a very low impedance dummy load.Plus one channel at a time. Plus
measuring peak power, not average power. With big capacitors in the power
supply, and all the tricks optimized, some amazing power levels could be
measured.

Of course you'd never realize such power in actual operation, but the
manufacturers rationalized that music wasn't sine waves anyway.

End result was that an amp which would have been rated as maybe a "20 watt
stereo amplifier" under the old scheme (two 20 watt channels operating
simultaneously) could be rated as high as "200 watts IHF music power" or some
such. All sorts of terms were invented, mostly to favor a particular test
method.

The serious audio folks coined the term "rms power" to mean the old way of actually feeding a continous tone to all channels and measuring the continuous audio power developed.

73 de Jim, N2EY

2900. Re: Frequency stability in vacuum tube VFOs, how do you do it?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-06 00:28:09 UTC
From: hhc314@yahoo.com
Message-ID: <7ce4e226.0410051628.4df0307c@posting.google.com>
Source record: 22834

Joe McElvenney <ximac@btinternet.com> wrote in message
news:<VA.00000076.0020dcf6@btinternet.com>...
> Hi,
>
> At the high end of the AM band, the oscillator capacitor is
> at its lowest capacitance (almost fully un-meshed). So, any
> variations in circuit capacitance due to tube electrode
> dimensions, capacitors with non-zero tempcos or similar
> happenings in the oscillator coil will have a greater effect than
> at the low frequency end.
>
> For this reason, a stable LC-tunable VFO would not normally
> be designed to tune the 3:1 ratio that an AM local oscillator is
> expected to.
>
>
> Cheers - Joe

Joe, back in the 'old days' everyone left his VFO energized on a
24-hours basis, to improve stability. Same with our receivers,
particularly when SSB became the vogue.

Harry C.

2901. Re: power output formula

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-06 00:31:53 UTC
From: Ralph Mowery <rmowery28146@earthlink.net>
Message-ID: <Z1H8d.4968$Vm1.245@newsread3.news.atl.earthlink.net>
Source record: 22835

> Then came solid state. Some early designs could deliver amazing levels of
power
> into very low impedance loads - for a short time, anyway. So the idea was
born
> to test the amps by feeding a pulsed signal rather than a continuous tone,
and
> using a very low impedance dummy load.Plus one channel at a time. Plus
> measuring peak power, not average power. With big capacitors in the power
> supply, and all the tricks optimized, some amazing power levels could be
> measured.
>
> Of course you'd never realize such power in actual operation, but the
> manufacturers rationalized that music wasn't sine waves anyway.
>
> End result was that an amp which would have been rated as maybe a "20 watt
> stereo amplifier" under the old scheme (two 20 watt channels operating
> simultaneously) could be rated as high as "200 watts IHF music power" or
some
> such. All sorts of terms were invented, mostly to favor a particular test
> method.

That is similar to how computer speakers can get 50 to 100 watts rating out
of a wall cube and a look inside will see the speakers rated around 2 watts.

2902. Re: Amateur radio is fake !

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-06 00:34:07 UTC
From: hhc314@yahoo.com
Message-ID: <7ce4e226.0410051634.37069135@posting.google.com>
Source record: 22836
Cross-posted to: rec.radio.amateur.homebrew,can.vlsi

"No Spam Here - Joe Schmo" <Spammenot@Nospam.net> wrote in message
news:<NDK7d.3891$Ae.3772@newsread1.dllstx09.us.to.verio.net>...
> Good troll!
>
> "Brian Raab" <kaisers_sun@yahoo.com> wrote in message
> news:8d001dc6.0410021906.77e198fe@posting.google.com...
> > Does not exist!]

Not even a good troll. Just some crap from a loser with too much time
on his hands, and too little motivation to accomplish anything!

Harry C.

2903. Need help with VHF transmitter kit

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-06 02:11:17 UTC
From: mndflmr <mndflmr@hotmail.com>
Message-ID: <n9j6m09u104h3rbod7ermst3jc421ltqon@4ax.com>
Source record: 22837
Cross-posted to: rec.radio.amateur.misc,rec.radio.swap,rec.radio.amateur.homebrew,rec.radio.amateur.equipment,sci.electronics.design,sci.electronics.basics,sci.electronics.misc,sci.engr.television.advanced,sci.engr.television.broadcast,alt.radio.broadcasting

Hello all,
Recently I purchased a low-power VHF transmitter kit from Ramsey. After building this kit, I have discovered that it will not work for my purpose. I am trying to transmit audio and video about 20 feet from a satellite receiver to my bedroom. The power output from the transmitter is so low that the picture quality is very poor. I am a novice and I am hoping the experts that use these newsgroups can help me. I will post a link to the Ramsey kit manual. Will some of you guys please take a look at this manual, and suggest some simple (hopefully) methods to increase the power of this transmitter? There is no chance of interference with the neighbors, as my nearest neighbor is far away. Any help would be greatly appreciated. If you want to email the response, please send it to mndflmr@hotmail.com

Here is the link to the kit manual:
http://www.ramseyelectronics.com/downloads/manuals/TV6.pdf

Thanks for any help

Joe

2904. Re: 18nH Inductor

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-06 02:42:20 UTC
From: Joe <nuisancewildlife@nospamearthlink.net>
Message-ID: <gYI8d.5843$Vm1.1794@newsread3.news.atl.earthlink.net>
Source record: 22838
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

"Tom Bruhns" <k7itm@aol.com> wrote in message
news:3200347.0410041033.9a87e75@posting.google.com...
> "Joe" <nuisancewildlife@nospamearthlink.net> wrote in message
news:<pk17d.6019$ls6.4814@newsread3.news.atl.earthlink.net>...
> > "Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
> > news:cji081$nq7$1@titan.btinternet.com...
> > > An 18 nano-henry inductor seems, to me, to be an impractical inductor
> > value.
>
> ;-) You just aren't working with small enough, high enough frequency
> circuits, Reg.
>
> 3 turns of 28AWG on a 4-40 (USA) screw (remove the screw, of course)
> will give you about 18 nH. Unloaded Q at 440MHz will be around 200.
> >
> > The link to the schematic is:
> > http://www.radiotronix.com/downloads/433_pair.pdf
>
> Easy enough to use SMT components soldered to a piece of copper-clad
> for a ground plane. Just put down the two caps and the shunt resistor
> "tombstone" style, one end soldered to the ground plane and the other
> up in the air, separated by enough distance to put the series coil and
> resistor between them. You can keep the parasitic L and C very low
> indeed this way. You can also use tiny squares of copper-clad glued
> down to the ground plane as tie points.
>
> It's also possible to mechanically make a simple circuit like this on
> copper-clad using surface mount parts, by scribing lines with
> something like an X-Acto knife and removing strips of copper. In this
> case, I could see scribing four lines across the board, separated by
> about 1/16 inch, and removing two copper strips, one from between the
> first and second scribe, and one from between the thrid and fourth
> scribe. That leaves a trace about 1/16 inch wide. Cut gaps in the
> trace, about 1/16 inch long, where you want to solder down series
> components. Solder shunt components across from the trace to the
> copper ground plane. Bridge across the trace with a copper strap to
> connect the two gound plane sides, with the bridge up in the air over
> the trace. Nice to have a ground plane on the opposite side, with
> some holes and wires to connect to the top-side ground planes, but not
> necessary. I'm thinking 0805 parts with the sizes I mentioned...make
> things slightly larger for 1206. You can make the trace be a 50 ohm
> transmission line if you want, by sizing things right.
>

> Cheers,
> Tom

Hi Tom,

Being so new at this, I don't even know what you mean by 'tombstone style', and it sounds like an awful lot of work to be scoring pcboard with an Xacto knife to create transmission line effects.

I talked with a tech rep from radiotronix today. They called me because I ordered a half dozen modules from mouser. He explained that the pi circuit on the TX is so the TX sees 50 ohms, which is pretty critical. I have not done anything with the transmitter modules yet (they are from Velleman because they are thru hole), but I am building a receiver board on pc board using pcbexpress and single sided copper pcboard. It will be the first prototype. Now that I have it working on a breadboard I am going to build one and see how it works. I am planning on using a straight piece of (20ga) wire for the 18nH inductor and using the T network of 2 8pf caps beside it. The tech said this is just a low pass filter, but it seems to make a difference in receiver sensitivity. The noise on the receiver is supposed to be there according to him. It is between 1Khz and 1.5Khz. he said some people use the data slicer pin with a holtek ht12D decoder, which i am doing or you can also use a micro to look for the bit pattern and decode the signal. I am just using the TV (transmission valid) to set off the rest of my circuit which, right now, consists of a latch and an LED.

Joe

2905. Re: Electronics surplus / ham shops Boston ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-06 02:47:23 UTC
From: Joe <nuisancewildlife@nospamearthlink.net>
Message-ID: <%0J8d.5880$Vm1.405@newsread3.news.atl.earthlink.net>
Source record: 22839

"J" <jmort@despammed.com> wrote in message
news:cjquc9std1@newsg1.svr.pol.co.uk...
> I will be travelling to Boston in a couple of weeks. Are there any
> electronics surplus shops or ham radio shops that might be worth visiting?
>
> Thanks
>
>

There's a place called You do it Electronics in Needham, which is about 10 miles west of Boston. It is not a surplus place tho. There's also jabbour electronics in Rhode Island, right over the state line just off Interstate 95. I think it is exit 24, not sure. Then there's Ocean State Electronics, which is mostly pcb stuff but they are in Rhode Island too, I am not sure if it's Warwick, but they are on the web, do a google for them.
Those are about the only ones I know about in this area.

hth,
Joe

2906. Re: Need help with VHF transmitter kit

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-06 02:50:58 UTC
From: COLIN LAMB <k7fm@teleport.com>
Message-ID: <m4J8d.4209$M05.1142@newsread3.news.pas.earthlink.net>
Source record: 22840
Cross-posted to: rec.radio.amateur.misc,rec.radio.swap,rec.radio.amateur.homebrew,rec.radio.amateur.equipment,sci.electronics.design,sci.electronics.basics,sci.electronics.misc,sci.engr.television.advanced,sci.engr.television.broadcast,alt.radio.broadcasting

The transmitter would necessarily comply with the FCC rules. Modifying it
to increase power is illegal.

If it does not transmit the distance represented, then either the
construction is wrong or the specifications are wrong.

Colin K7FM

Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.742 / Virus Database: 495 - Release Date: 8/19/04

2907. Re: OT: Monitor woes

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-06 03:39:52 UTC
From: ablight@alphalink.com.au
Message-ID: <1fc7b362.0410051939.8b6096e@posting.google.com>
Source record: 22841

Allodoxaphobia <bit-bucket@config.com> wrote in message
news:<slrncm66n9.fi.bit-bucket@shell.config.com>...
> On Tue, 05 Oct 2004 11:52:14 GMT, Mike W hath writ:
> > Hi Folks,
> > I guess this is OT but I really don't know where else to ask for the
> > info.
>
> sci.electronics.repair

At this distance can only attempt.....

1.Measure DC voltages at CRT base when OK, measure again when faulty - one of them will have changed. If you want to be fancy, check for AC ripple levels on HT and 12v lines -will be HF due switchmode power supply... With any luck, board will be marked. Warning - there is HT there, so be careful! Also, check for dry joints, percussive testing, temperature cycling with a hairdryer on hot/cold cycles.

2.A brute force method I use is - when it faults, see if adjusting the screen and focus voltages (on EHT transfomer, usually marked F and S). If this fixes it, then EHT transformer (or, more particularly, the diodes inside it) are faulty. Dont fancy your chances of getting a replacement..... and this IS a common monitor fault.

Among the numbers on the back will be a "FCC ID No ..xxxxxxxx" - go to the FCC website, it will tell you who made it - usually no relationship to the brand on the front!

Good luck, its a nice size to have in the shack because of its small footprint....

73 de VK3BFA Andrew

2908. Re: Amateur radio is fake !

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-06 04:30:52 UTC
From: No Spam Here - Joe Schmo <Spammenot@Nospam.net>
Message-ID: <5zK8d.4013$Ae.813@newsread1.dllstx09.us.to.verio.net>
Source record: 22842
Cross-posted to: rec.radio.amateur.homebrew,can.vlsi

"Harry Conover" <hhc314@yahoo.com> wrote in message
news:7ce4e226.0410051634.37069135@posting.google.com...
> "No Spam Here - Joe Schmo" <Spammenot@Nospam.net> wrote in message
> news:<NDK7d.3891$Ae.3772@newsread1.dllstx09.us.to.verio.net>...
>> Good troll!
>>
>> "Brian Raab" <kaisers_sun@yahoo.com> wrote in message
>> news:8d001dc6.0410021906.77e198fe@posting.google.com...
>> > Does not exist!]
>
> Not even a good troll. Just some crap from a loser with too much time
> on his hands, and too little motivation to accomplish anything!
>
> Harry C.

That works too!

JS

2909. Re: Frequency stability in vacuum tube VFOs, how do you do it?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-06 04:59:30 UTC
From: Robert Casey <wa2ise@ix.netcom.com>
Message-ID: <41637BA3.20402@ix.netcom.com>
Source record: 22843

TOM wrote:
> Mostly better design and charericterization. The VFO's designs
> were tested for temperature drift, and temperature-compensating
> capacitors were made part of the design. I think a few radio VFO's
> were actually tweaked as part of the unit test for temperature stability,
> but not sure. It would have been expensive.
>
> The capacitors are coded:
>
> N - for negative temperature coefficient
> P - for positive temperature coefficient
> NP0 - for no temperature coefficient.
>

I used a 10pF ceramic temperature stability not marked
across the LC tank. Mounted it directly under the 12BE6
tube so it would be warmed by that tube, like a hen on
eggs. One lead connecting to a center ground peg of the
tube socket, and the other a wire jumper to the top of the
LO tank. Keeps the radio stable at 1520 from a cold start
to warm. Only thing is now the radio top ends at about
1540. Also reasonably stable at 1160, and 660.

2910. Re: Need help with VHF transmitter kit

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-06 05:20:58 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10m705fgd9d3n7c@corp.supernews.com>
Source record: 22844
Cross-posted to: rec.radio.amateur.misc,rec.radio.swap,rec.radio.amateur.homebrew,rec.radio.amateur.equipment,sci.electronics.design,sci.electronics.basics,sci.electronics.misc,sci.engr.television.advanced,sci.engr.television.broadcast,alt.radio.broadcasting

mndflmr wrote:
> Hello all,
> Recently I purchased a low-power VHF transmitter kit from Ramsey.
> After building this kit, I have discovered that it will not work for
> my purpose. I am trying to transmit audio and video about 20 feet from
> a satellite receiver to my bedroom. The power output from the
> transmitter is so low that the picture quality is very poor. I am a
> novice and I am hoping the experts that use these newsgroups can help
> me. I will post a link to the Ramsey kit manual. Will some of you
> guys please take a look at this manual, and suggest some simple
> (hopefully) methods to increase the power of this transmitter? There
> is no chance of interference with the neighbors, as my nearest
> neighbor is far away. Any help would be greatly appreciated. If you
> want to email the response, please send it to mndflmr@hotmail.com
>
> Here is the link to the kit manual:
> http://www.ramseyelectronics.com/downloads/manuals/TV6.pdf
>
>
> Thanks for any help
>
> Joe
>
>
The best and least expensive way at this point is probably to use better
antennas on each end. What are you using now?

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

2911. Re: Need help with VHF transmitter kit

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-06 06:00:05 UTC
From: Robert Baer <robertbaer@access4less.net>
Message-ID: <416389E5.1070907@access4less.net>
Source record: 22845
Cross-posted to: rec.radio.amateur.misc,rec.radio.swap,rec.radio.amateur.homebrew,rec.radio.amateur.equipment,sci.electronics.design,sci.electronics.basics,sci.electronics.misc,sci.engr.television.advanced,sci.engr.television.broadcast,alt.radio.broadcasting

Tim Wescott wrote:

> mndflmr wrote:
>
>> Hello all,
>> Recently I purchased a low-power VHF transmitter kit from Ramsey.
>> After building this kit, I have discovered that it will not work for
>> my purpose. I am trying to transmit audio and video about 20 feet from
>> a satellite receiver to my bedroom. The power output from the
>> transmitter is so low that the picture quality is very poor. I am a
>> novice and I am hoping the experts that use these newsgroups can help
>> me. I will post a link to the Ramsey kit manual. Will some of you
>> guys please take a look at this manual, and suggest some simple
>> (hopefully) methods to increase the power of this transmitter? There
>> is no chance of interference with the neighbors, as my nearest
>> neighbor is far away. Any help would be greatly appreciated. If you
>> want to email the response, please send it to mndflmr@hotmail.com
>> Here is the link to the kit manual:
>> http://www.ramseyelectronics.com/downloads/manuals/TV6.pdf
>>
>>
>> Thanks for any help
>>
>> Joe
>>
> The best and least expensive way at this point is probably to use better
> antennas on each end. What are you using now?
>

Ten milliwatts is more than enough for a measly 20 feet, and i am
sure the kit puts out more than that.
Match (tune) the antennas at both ends for starters, orient them to
point at each other is the next step, and have a decent (sensitive)
receiver.
I only had a matched antenna at the (sensitive) receiver, and got
about 100 or so feet at 10mW.

2912. Re: 18nH Inductor

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-06 07:05:31 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <8SKjJXF7k5YBFAYK@ifwtech.co.uk>
Source record: 22846
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

Joe wrote:
>
>Being so new at this, I don't even know what you mean by 'tombstone
>style', and it sounds like an awful lot of work to be scoring pcboard
>with an Xacto knife to create transmission line effects.
>
You can easily build what you need using single-sided board: a continuous groundplane, components soldered on top, and connections made using sticky-backed copper tape (available at craft stores for stained-glass work).

If you cut strips 0.1in wide, these will be a good approximation to 50-ohm microstrip, for the relatively low frequencies and short lengths that you will need. On the reverse side, use broader the copper tape to link the groundplanes of your extension and the Radiotronix module.

Simply lay the SMD components against each other, and solder them together... but before you do, mark where the connections through to ground will need to be, for the two capacitors in the pi-network and possibly other places. Then drill the board and insert links of thick wire (14AWG) so that the ground connections will have zero length beyond the thickness of the board - but I really do mean ZERO, or else your network will not perform correctly. The ground links must be touching the ends of the capacitor chips before you solder them.

Likewise, use ZERO lead lengths inside the pi-network. Butt the ends of the two Cs and the L chips directly together, and solder. Any "connecting leads" must be restricted to the places that can use 50-ohm microstrip.

This construction method is very quick and simple. The SMD parts are well-enough anchored to the board for all normal conditions of use.

>I talked with a tech rep from radiotronix today. They called me
>because I ordered a half dozen modules from mouser. He explained that
>the pi circuit on the TX is so the TX sees 50 ohms, which is pretty
>critical.

- so remember what I just said about zero lead lengths.

>I have not done anything with the transmitter modules yet (they are
>from Velleman because they are thru hole), but I am building a receiver
>board on pc board using pcbexpress and single sided copper pcboard. It
>will be the first prototype. Now that I have it working on a breadboard
>I am going to build one and see how it works. I am planning on using a

>straight piece of (20ga) wire for the 18nH inductor and using the T
>network of 2 8pf caps beside it. The tech said this is just a low pass
>filter, but it seems to make a difference in receiver sensitivity.

On the face of it, this pi-network has a 1:1 impedance transformation (two equal capacitors) so it shouldn't make any difference. However, there may be stray capacitances and/or inductances in the module that we don't know about. Bottom line is, this network is what the Radiotromix techs have found to work.

Since you don't have the design experience and the test equipment to measure how the whole thing performs, you would be very wise to copy EXACTLY what Radiometrix did, which includes building the whole network using the best possible construction practice.

Also, a straight piece of wire is actually a short length of transmission line: it does not have quite the same electrical properties as an inductor. So use an 18nH chip inductor like Radiometrix said.

This is really part of your "contract" with the module manufacturer. It isn't fair or reasonable to expect their tech support to second-guess what the effects of every individual user's network might be, if they're all slightly different. You might get away with it this time, but some of the worst tech-support problems are caused by people who declare:

"I did exactly what you said..."

[Now follows 20 minutes of intensive cross-examination over the phone]

"... oh, apart from all these things that are different."

[Deleted: strange sounds on the phone line. The tech has the curly cord gripped in both hands. He's puling it out straight, and he has a red glint in his eyes. Be very thankful that you're several hundred miles away...]

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

2913. Re: 18nH Inductor

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-06 08:28:26 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <WCupNmKqy6YBFAtK@ifwtech.co.uk>
Source record: 22847
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

Ian White, G3SEK wrote:
>You can easily build what you need using single-sided board: a
>continuous groundplane, components soldered on top, and connections
>made using sticky-backed copper tape

Sorry, that wasn't quite clear (not enough coffee yet this morning).

The continuous groundplane is on the underside of the board. All the SMD components are on the bare fibreglass side. The SMD components are held in place by soldering them directly to each other, to the ground links, to the striplines, and to various other fixed points.

No board etching is required, and this technique will is good to frequencies well above 1GHz.

The 0.1in stripline width was for standard 0.064in FR-4. You can obviously refine that calculation if you want, but there's little point for this particular application.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

2914. Re: Need help with VHF transmitter kit

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-06 13:36:04 UTC
From: darleyput@hotmail.com
Message-ID: <ck0sc4$lg4$1@news8.svr.pol.co.uk>
Source record: 22848

Oh dear I don't like this much cross posting, so I have only posted to
rec.radio.amateur.homebrew
I hope you get this.
There is a forum for kits and all Ramsey stuff at

http://www.ramseyelectronics.com

2915. Re: Need help with VHF transmitter kit

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-06 13:46:21 UTC
From: SNIPrf_man_frTHIS@yahoo.com
Message-ID: <2c8119eb.0410060546.2d5e8954@posting.google.com>
Source record: 22849
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design,sci.electronics.basics

mndflmr <mndflmr@hotmail.com> wrote in message
news:<n9j6m09u104h3rbod7ermst3jc421ltqon@4ax.com>...
> Hello all,
> Recently I purchased a low-power VHF transmitter kit from Ramsey.
> After building this kit, I have discovered that it will not work for
> my purpose. I am trying to transmit audio and video about 20 feet from
> a satellite receiver to my bedroom. The power output from the
> transmitter is so low that the picture quality is very poor. I am a
> novice and I am hoping the experts that use these newsgroups can help
> me. I will post a link to the Ramsey kit manual. Will some of you
> guys please take a look at this manual, and suggest some simple
> (hopefully) methods to increase the power of this transmitter? There
> is no chance of interference with the neighbors, as my nearest
> neighbor is far away. Any help would be greatly appreciated. If you
> want to email the response, please send it to mndflmr@hotmail.com
>
> Here is the link to the kit manual:
> http://www.ramseyelectronics.com/downloads/manuals/TV6.pdf
>
>

Something is broken. Either at the transmitter or receiver. A
mis-matched antenna couldn't possibly account for a poor quality
picture at 20 feet. I presume this transmitter is designed to transmit
a signal via antenna to source and not over transmission line. Here
are some probable causes:

1) The transmitter output stage is broken.
2) The receiver is not working (see how well it picks up other
stations).
3) The antenna at either end is disconnected.
4) There is Radio-frequency interference (RFI) such as from a
computer.

Frank Raffaeli
http://www.aomwireless.com/

2916. Re: power output formula

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-06 13:55:51 UTC
From: mikea@mikea.ath.cx
Message-ID: <ck0th7pig4@puck.litech.org>
Source record: 22872

Ralph Mowery <rmowery28146@earthlink.net> wrote:

[snip discussion of "IHF power" and other specious ratings]

> That is similar to how computer speakers can get 50 to 100 watts rating out
> of a wall cube and a look inside will see the speakers rated around 2 watts.

I have frequently had a good laugh at 50 to 100 watt computer speakers
fed by a single 12 VDC 750 mA wall-wart, not to mention stereo amps
with ratings plates showing 120 VAC 300 mA for an amp supposedly rated
at 100 W per channel. WHat color is the sky in _their_ universe?

--
I think anything that comes from M$ can safely be called a "coprogram".
Once it's fossilized, it's just a coprolite.
-- me, in the Monastery

2917. Re: 18nH Inductor

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-06 14:55:12 UTC
From: k7itm@aol.com
Message-ID: <3200347.0410060655.51019b39@posting.google.com>
Source record: 22850
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

"Joe" <nuisancewildlife@nospamearthlink.net> wrote in message
news:<gYI8d.5843$Vm1.1794@newsread3.news.atl.earthlink.net>...
> "Tom Bruhns" <k7itm@aol.com> wrote in message
> news:3200347.0410041033.9a87e75@posting.google.com...
...
> > Easy enough to use SMT components soldered to a piece of copper-clad
> > for a ground plane. Just put down the two caps and the shunt resistor
> > "tombstone" style, ...
Joe: "I don't even know what you mean by 'tombstone style',"

Tombstone style...just solder one end to the copper-clad board, and
the other end sticking up in the air. Looks like a micro-size
tombstone sticking up from the board.

...
> >
> > Cheers,
> > Tom
>
> Hi Tom,
>
> Being so new at this, I don't even know what you mean by 'tombstone style',
> and it sounds like an awful lot of work to be scoring pcboard with an Xacto
> knife to create transmission line effects.

It's really not all that difficult. Just use a ruler to guide the
knife, use a sharp knife, and the strips you want to remove can
usually just be pulled up in one piece (each). Or do it as Ian
suggested, with sticky copper tape.

As Ian wrote, keep lead lengths extremely short, like "zero." He
suggested putting a piece of heavy copper wire through the board where
you want to connect to the ground plane. Another way is to simply
drill a hole through the board and drop an 0805-size surface mount
part into the hole, and solder both ends. A 1/16" hole would work,
but you'd do better to pick a size that just fits the part you want to
use. Not all 0805 parts are quite the same size, but the body lengths
are pretty accurate and work nicely in 1/16" thick board material.
Any of the methods mentioned by Ian and myself will work well, and all
are reasonably easy to implement with a bit of practice and patience.

Cheers,
Tom

2918. Re: power output formula

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-06 16:17:56 UTC
From: Gary Schafer <gaschafer@comcast.net>
Message-ID: <uk68m0p9s3ssnimpfutui03r1iji2md5ia@4ax.com>
Source record: 22851

On Wed, 06 Oct 2004 08:24:08 -0700, Bill Turner <noway@nohow.com>
wrote:

>On Tue, 05 Oct 2004 17:13:54 GMT, Gary Schafer <gaschafer@comcast.net>
>wrote:
>
>>If it were really rms power then you should be able to find peak power
>>by multiplying by 1.414 as you do with rms voltage. But that doesn't
>>work because power is not an rms value.
>
>____
>
>Here's where you are going wrong. You are only multiplying the VOLTAGE
>by 1.414 and forgetting to multiply the CURRENT by 1.414. Look at the
>entire formula:
>
>P(pk) = VRMS x 1.414 x IRMS x 1.414
>
>You can multiply the two 1.414 factors together and get - voila - 2.
>
>So the formula becomes
>
>P(pk) = VRMS x IRMX x 2.
>
>And that's where the 2 comes from. What you were doing is multiplying
>the peak voltage by the RMS current, which is incorrect.
>
>Make sense?

oooooow. I think I will give up here. I made too many posts on this.

Once it becomes power it is no longer an rms value.

73
Gary K4FMX

2919. Re: 18nH Inductor

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-06 17:20:57 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <416427a2$1_4@127.0.0.1>
Source record: 22853
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

Tom Bruhns wrote:
> Any of the methods mentioned by Ian and myself will work well, and all
> are reasonably easy to implement with a bit of practice and patience.

One method of "etching" that worked for me was using a reamer
bit on a drill press to cut through the copper and barely into
the PCB material. This has the advantage of leaving a ground
plane in between the active traces. Also great for scouring
and sizing PCBs.
--
73, Cecil, W5DXP

2920. Re: 18nH Inductor

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-06 18:11:26 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <b8d8m0hlvmbd3ldb3947grrfjpd92qo7o8@4ax.com>
Source record: 22854
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

On Wed, 06 Oct 2004 12:20:57 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:

>Tom Bruhns wrote:
>> Any of the methods mentioned by Ian and myself will work well, and all
>> are reasonably easy to implement with a bit of practice and patience.
>
>One method of "etching" that worked for me was using a reamer
>bit on a drill press to cut through the copper and barely into
>the PCB material. This has the advantage of leaving a ground
>plane in between the active traces. Also great for scouring
>and sizing PCBs.

This is where those Dremmel tools come into their own!

--

"What is now proved was once only imagin'd." - William Blake, 1793.

2921. Re: power output formula

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-06 18:15:11 UTC
From: Gary Schafer <gaschafer@comcast.net>
Message-ID: <1gd8m09954i8im84ldlsg7vfesjnc6q44r@4ax.com>
Source record: 22855

On Wed, 06 Oct 2004 10:22:52 -0700, Bill Turner <noway@nohow.com>
wrote:

>On Wed, 06 Oct 2004 16:17:56 GMT, Gary Schafer <gaschafer@comcast.net>
>wrote:
>
>>Once it becomes power it is no longer an rms value.
>
>_____
>
>To be unambiguous, the word "power" needs to have an adjective attached,
>like "DC power", "RMS power", "Peak power", "Real power", etc, etc.
>
>Lots of times, people get lazy and say only "power", but that leaves it
>open to mis-interpretation. I'm guilty of it too.

How about "average power" the correct term.

73
Gary K4FMX

2922. Re: Need help with VHF transmitter kit

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-06 18:37:39 UTC
From: Rich Grise <null@example.net>
Message-ID: <TXW8d.6697$r3.5502@trnddc05>
Source record: 22856
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design,sci.electronics.basics

```
On Wednesday 06 October 2004 01:17 pm, Jamie did deign to grace us with the
following:

>
>
> Frank Raffaeli wrote:
>
>> mndflmr <mndflmr@hotmail.com> wrote in message
>> news:<n9j6m09u104h3rbod7ermst3jc421ltqon@4ax.com>...
>>
>>>Hello all,
>>>Recently I purchased a low-power VHF transmitter kit from Ramsey.
>>>After building this kit, I have discovered that it will not work for
>>>my purpose. I am trying to transmit audio and video about 20 feet from
>>>a satellite receiver to my bedroom. The power output from the
>>>transmitter is so low that the picture quality is very poor. I am a
>>>novice and I am hoping the experts that use these newsgroups can help
>>>me. I will post a link to the Ramsey kit manual. Will some of you
>>>guys please take a look at this manual, and suggest some simple
>>>(hopefully) methods to increase the power of this transmitter? There
>>>is no chance of interference with the neighbors, as my nearest
>>>neighbor is far away. Any help would be greatly appreciated. If you
>>>want to email the response, please send it to mndflmr@hotmail.com
>>>
>>>Here is the link to the kit manual:
>>>http://www.ramseyelectronics.com/downloads/manuals/TV6.pdf
>>>
>>>
>>
>>
>> Something is broken. Either at the transmitter or receiver. A
>> mis-matched antenna couldn't possibly account for a poor quality
>> picture at 20 feet. I presume this transmitter is designed to transmit
>> a signal via antenna to source and not over transmission line. Here
>> are some probable causes:
>>
>> 1) The transmitter output stage is broken.
>> 2) The receiver is not working (see how well it picks up other
>> stations).
>> 3) The antenna at either end is disconnected.
>> 4) There is Radio-frequency interference (RFI) such as from a
>> computer.
>>
```

>> Frank Raffaeli
>
> Its my guess that the Transmitter has insufficient bandwidth and power
> for that broad of a signal.
> one must not forget the amount of band space a single channel takes.

Did the OP go through the alignment procedure? Did the OP bother with
antennas at all?

Did either of you read the kit doc?

Thanks,
Rich

2923. Re: Need help with VHF transmitter kit

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-06 19:41:06 UTC
From: mndflmr <mndflmr@hotmail.com>
Message-ID: <k4i8m05o4ausogai8ap7mv5icr3vd5m3nn@4ax.com>
Source record: 22857
Cross-posted to: rec.radio.amateur.misc,rec.radio.swap,rec.radio.amateur.homebrew,rec.radio.amateur.equipment,sci.electronics.design,sci.electronics.basics,sci.electronics.misc,sci.engr.television.advanced,sci.engr.television.broadcast,alt.radio.broadcasting

On Tue, 05 Oct 2004 20:11:17 -0600, mndflmr <mndflmr@hotmail.com>
wrote:

Thanks for all the hints. I have messed around with different receive antennas and I have finally gotten a usable picture. It kind of surprised me that I had to go through so much trouble at such a short distance. I am afraid I will never understand RF. At any rate, now my problem is with the audio (yes I have fiddled with all the adjustments in the transmitter). I cannot get the POPPING out of the audio. I phoned Ramsey and was told to exchange the 270 pf cap for a 220 pf cap. This cap is mounted on the underside of the board (see board drawing on the PDF). Well I will give this a try. I still wouldn't mind upping the power somewhat. I know there are resstrictions by I have no neighbors nearby. For some reason the schematic drawing is missing on the PDF. I do have the schematic that came with the instructions. Not that it does me a lot of good with my limited knowledge! Anyway, thanks everyone for the input.

Joe

2924. Re: 18nH Inductor

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-06 19:51:19 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41644ae0$1_4@127.0.0.1>
Source record: 22858
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

Paul Burridge wrote:
> Cecil Moore <w5dxp@hotmail.com>> wrote:
>>One method of "etching" that worked for me was using a reamer
>>bit on a drill press to cut through the copper and barely into
>>the PCB material. This has the advantage of leaving a ground
>>plane in between the active traces. Also great for scouring
>>and sizing PCBs.
>
> This is where those Dremmel tools come into their own!

As a matter of fact, when I did this stuff at home, I used a
Dremmel tool.

2925. Re: Need help with VHF transmitter kit

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-06 20:17:19 UTC
From: Jamie <jamie_5_not_valid_after_5_Please@charter.net>
Message-ID: <10m88juj8lo66ea@corp.supernews.com>
Source record: 22852
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design,sci.electronics.basics

Frank Raffaeli wrote:

> mndflmr <mndflmr@hotmail.com> wrote in message
news:<n9j6m09u104h3rbod7ermst3jc421ltqon@4ax.com>...
>
>>Hello all,
>>Recently I purchased a low-power VHF transmitter kit from Ramsey.
>>After building this kit, I have discovered that it will not work for
>>my purpose. I am trying to transmit audio and video about 20 feet from
>>a satellite receiver to my bedroom. The power output from the
>>transmitter is so low that the picture quality is very poor. I am a
>>novice and I am hoping the experts that use these newsgroups can help
>>me. I will post a link to the Ramsey kit manual. Will some of you
>>guys please take a look at this manual, and suggest some simple
>>(hopefully) methods to increase the power of this transmitter? There
>>is no chance of interference with the neighbors, as my nearest
>>neighbor is far away. Any help would be greatly appreciated. If you
>>want to email the response, please send it to mndflmr@hotmail.com
>>
>>Here is the link to the kit manual:
>>http://www.ramseyelectronics.com/downloads/manuals/TV6.pdf
>>
>>
>
>
> Something is broken. Either at the transmitter or receiver. A
> mis-matched antenna couldn't possibly account for a poor quality
> picture at 20 feet. I presume this transmitter is designed to transmit
> a signal via antenna to source and not over transmission line. Here
> are some probable causes:
>
> 1) The transmitter output stage is broken.
> 2) The receiver is not working (see how well it picks up other
> stations).
> 3) The antenna at either end is disconnected.
> 4) There is Radio-frequency interference (RFI) such as from a
> computer.
>
> Frank Raffaeli

Its my guess that the Transmitter has insufficient bandwidth and power
for that broad of a signal.
one must not forget the amount of band space a single channel takes.

2926. Re: Need help with VHF transmitter kit

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-06 20:27:29 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <ck1kkf$r44$1@newshost.mot.com>
Source record: 22860
Cross-posted to: rec.radio.amateur.misc,rec.radio.swap,rec.radio.amateur.homebrew,rec.radio.amateur.equipment,sci.electronics.design,sci.electronics.basics,sci.electronics.misc,sci.engr.television.advanced,sci.engr.television.broadcast,alt.radio.broadcasting

"Robert Baer" <robertbaer@access4less.net> wrote in message
news:416389E5.1070907@access4less.net...
> Tim Wescott wrote:
>
> > mndflmr wrote:
> >
> >> Hello all,
> >> Recently I purchased a low-power VHF transmitter kit from Ramsey.
> >> After building this kit, I have discovered that it will not work for
> >> my purpose. I am trying to transmit audio and video about 20 feet from
> >> a satellite receiver to my bedroom. ...
> >> Joe
> >>
> > The best and least expensive way at this point is probably to use better
> > antennas on each end. What are you using now?
> >
>
> Ten milliwatts is more than enough for a measly 20 feet, and i am
> sure the kit puts out more than that.
> Match (tune) the antennas at both ends for starters, orient them to
> point at each other is the next step, and have a decent (sensitive)
> receiver.
> I only had a matched antenna at the (sensitive) receiver, and got
> about 100 or so feet at 10mW.

I concurr. That transistor has the capability of putting out one watt,
though I don't think the circuit is designed to do that much. Even so, if
it is putting out even 100 miliwatts, that should get you several hundred
feet...with decent antennas. Once you are sure the circuit is operating
properly, work on the antennas . I did a TV transmitter of about 10 mw and
a really short whip antenna and got 20 feet no problem. Stuck it onto the
top of my camcorder and walked around the house. This was with the TV
"transmitter" from my 1970's "Pong" game and one of those broad band MMIC
amps...50 ohms in/out and a 18 inch whip above the camera. It was actually
in a Bud box with a home-made bracket that slipped into the light shoe. Had
to be a crummy antenna.

--
Steve N, K,9;d, c. i My email has no u's.

>

2927. Re: 18nH Inductor--Thanks!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-06 20:34:13 UTC
From: Joe <nuisancewildlife@nospamearthlink.net>
Message-ID: <9FY8d.6482$Vm1.5039@newsread3.news.atl.earthlink.net>
Source record: 22859
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

Thanks all for the suggestions, I have a dremel, and this might be a good project for me to learn how to use smt stuff. I will need to get a small lighted magnifier tho, cause my eyes ain't what they used to be, even with my reading glasses.

Joe

2928. Parts Sources OnLine

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-06 21:08:35 UTC
From: GeorgeF <av8tor@licensed4funREMOVEBEFOREFLIGHT.com>
Message-ID: <n9Z8d.6510$Vm1.154@newsread3.news.atl.earthlink.net>
Source record: 22861

Just getting back into homebrewing and looking for the best sources of parts such as resistors, caps, boxes, etc.....

Right now I'm need of a source of MGFxxxx gaasfets.

Another question, is there a good online source where I can get specs on gaasfets, npn's transistors, etc.....

George

2929. Re: power output formula

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-06 21:15:23 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <ck1ne9ric1@newshost.mot.com>
Source record: 22862

1- The term "RMS power" has no mathematical or electronically correct meaning. It is technically meaningless. On the other hand, we often use terms to "imply" things within a certain circle. This is very common and accepted by many.

RAM is random access memory, but so is ROM (random access, that is) We all know what is meant.

Though Gary used the term "RMS Power" in his math description, It is a strange usage. Perhaps the "audio folks" coined it for some reason, but it is not a technical term in circuits, electrical Engineering or what ever you want to call serious electronics fields. HOWEVER, he did the correct math and he did enough explaining that it was clear what he meant by it. I maintain it is the meaning that is important and it is important to look past the differences in tech-speak some may have. Discuss the concept -- work to arrive at the meaning and don't quibble over terminology if at all possible. Too many time is see flames which jump between concept and terminology choice. Pick a common term and move on.

Not to long ago, it was common to call average power "true power". If circuit conditions are kept as they are for long enough, this is the power which goes wherever. I'll leave the philosophical (sp) discussion of just what power this is to Reg.

B- There is "Peak Power". Typically, this is the power at the peak of the waveform (often sinewave, but not necessarily). This power DOES occur at that time. The peak power is there. Voltage is there and current is there at the same time and power happens. For "Peak-to-peak" it ain't so.

There is never any peak-to-peak voltage which is present at an instant causing a peak-to-peak current to flow at that instant resulting in a peak-to-peak power.

B2 - We usually talk about the power over one cycle because that is enough time to know what it really is over the long term (assuming the wave sticks around for the long term)...

3- I disagree. An adjective or modifier isn't "needed" but it sure can help if there may be confusion as to just what the subject is.

D- What Gary said is true. "Once it becomes power it is no longer an rms value". This is because RMS values of voltage and current are simply tools we use to arrive at the true, average power...call it what you like We have to because there ain't no gizmo which measures the power directly (I'll ignore all the discussion about thermal means [or whatever] actually measuring the power).

5- What Gary said is false - "If it were really rms power then you should be
able to find peak power by multiplying by 1.414 as you do with rms voltage.
But that doesn't
work because power is not an rms value."
--- NOPE ---
RMS has a specific meaning (in this context) and it ain't in regard to
power. It is applied to the voltage and / or current when that is what you
want to use to find power. The part about "multiplying by 1.414" can not be
applied to power. This is an invalid extension of the math behind RMS...not
applicable...apples and oranges. Applying the wrong formula to the right
(or wrong) situation.

73
--
Steve N, K,9;d, c. i My email has no u's.

"Bill Turner" <noway@nohow.com> wrote in message
news:rh38m0t33ov3kc8kjf0khkgn0ohaoeo0ru@4ax.com...
> On Tue, 5 Oct 2004 19:03:48 +0000 (UTC), "Reg Edwards"
> <g4fgq.regp@ZZZbtinternet.com> wrote:
>
> >There's only one sort of "power" and that is simply "power". I have
serious
> >doubts about such vague and indeterminate notions as "reflected" power.
>
> ----------
>
> Is that so? Then what do you call the instantaneous power which occurs
> at the top of a cycle of AC. I call it "peak".
>
> --
> Bill W6WRT
>

2930. Re: power output formula

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-06 22:04:16 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <utq8m01efmcqoosgd3doqpcr57cfndtmdr@4ax.com>
Source record: 22863

On Wed, 6 Oct 2004 14:44:17 -0700, "El Conjeturar" <Op@guessin.net>
wrote:

>How about:
>average power =
>
>where V and I are understood to be the effective or rms values of the
>voltage and current.

No, no, no! RMS and average are two totally different things!
--

"What is now proved was once only imagin'd." - William Blake, 1793.

2931. Re: power output formula

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-06 23:57:45 UTC
From: El Conjeturar <Op@guessin.net>
Message-ID: <ZD%8d.658$hj.561@fed1read07>
Source record: 22864

Read the URL
http://hyperphysics.phy-astr.gsu.edu/hbase/electric/powerac.html

it did not say rms equals average

The page was written by a Carl R. (Rod) Nave Department of Physics and
Astronomy Georgia State University

a.. Associate Professor, Georgia State University
a.. Faculty Advisor, Undergraduate Program
a.. Author, HyperPhysics
.

"Paul Burridge" <pb@notthisbit.osiris1.co.uk> wrote in message
news:utq8m01efmcqoosgd3doqpcr57cfndtmdr@4ax.com...
> On Wed, 6 Oct 2004 14:44:17 -0700, "El Conjeturar" <Op@guessin.net>
> wrote:
>
> >How about:
> >average power =
> >
> >where V and I are understood to be the effective or rms values of the
> >voltage and current.
>
> No, no, no! RMS and average are two totally different things!
> --
>
> "What is now proved was once only imagin'd." - William Blake, 1793.

2932. Re: power output formula

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-07 00:36:08 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <ck231n$7lj$1@sparta.btinternet.com>
Source record: 22865

Only quantities which have been arithmetically derived by the equation -

P = Sqrt(Sqr(A) + Sqr(B) + Sqr(C) + . . .)

or its equivalents, can properly be referred to as RMS.

Occasionally, when there is something specially significant in the way a value been calculated, it may be descriptively convenient to precede its name with RMS.

But use of the term in a non-arithmetical context s meaningless.

The term 'RMS value' is also used in conjunction with other than electrical quantities, eg., as in Statistics.

Reg.

2933. Re: power output formula

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-07 01:07:21 UTC
From: Gary Schafer <gaschafer@comcast.net>
Message-ID: <qf59m01lcv14psjuk0n9co9qodlla0l1e4@4ax.com>
Source record: 22866

On Wed, 06 Oct 2004 13:38:19 -0700, Bill Turner <noway@nohow.com>
wrote:

>On Wed, 06 Oct 2004 18:15:11 GMT, Gary Schafer <gaschafer@comcast.net>
>wrote:
>
>>How about "average power" the correct term.
>
>_____
>
>This will be the third time I've asked for an official source for this
>"correct" term. If there is no reply, I shan't be asking again.

References:

Same one I gave before in an earlier post.
2000 ARRL handbook 6.6 chapter 6, RMS VOLTAGES AND CURRENTS. Read on
to the pep power paragraph too.

Here is another:
Here are quotes directly from: Electronics Pocket Handbook by Daniel
L. Metzger. Page 13.
This is a nice little book if you ever run across one pick it up.
About 280 pages.

Peak, Average and rms.

1. Use peak voltage or current to calculate maximum instantaneous
power only.

2. Use average current to calculate average power when the voltage is
fixed dc. Use average voltage to calculate average power when the
current is unvarying dc.

3. Use rms voltage and /or rms current to calculate average power when
the load is a linear device (resistor) and both V and I are ac in
phase and of the same waveshape. Use IV, I^2 R, V^2/R.

4. Rms measure is assumed in any ac voltage or current notation unless
peak, peak to peak, or average is specified.

5. The factor .707 for converting peak to rms applies to sine waves
only.

73
Gary K4FMX

2934. Re: Need help with VHF transmitter kit

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-07 02:09:37 UTC
From: SNIPrf_man_frTHIS@yahoo.com
Message-ID: <2c8119eb.0410061809.688fcdcb@posting.google.com>
Source record: 22867
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design,sci.electronics.basics

Rich Grise <null@example.net> wrote in message news:<TXW8d.6697$r3.5502@trnddc05>...
> On Wednesday 06 October 2004 01:17 pm, Jamie did deign to grace us with the
> following:
>
> >
> >
> > Frank Raffaeli wrote:
> >
> >> mndflmr <mndflmr@hotmail.com> wrote in message
> >> news:<n9j6m09u104h3rbod7ermst3jc421ltqon@4ax.com>...
> >>
> >>>Hello all,
> >>>Recently I purchased a low-power VHF transmitter kit from Ramsey.
> >>>After building this kit, I have discovered that it will not work for
> >>>my purpose. I am trying to transmit audio and video about 20 feet from
> >>>a satellite receiver to my bedroom. The power output from the
> >>>transmitter is so low that the picture quality is very poor. I am a
> >>>novice and I am hoping the experts that use these newsgroups can help
> >>>me. I will post a link to the Ramsey kit manual. Will some of you
> >>>guys please take a look at this manual, and suggest some simple
> >>>(hopefully) methods to increase the power of this transmitter? There
> >>>is no chance of interference with the neighbors, as my nearest
> >>>neighbor is far away. Any help would be greatly appreciated. If you
> >>>want to email the response, please send it to mndflmr@hotmail.com
> >>>
> >>>Here is the link to the kit manual:
> >>>http://www.ramseyelectronics.com/downloads/manuals/TV6.pdf
> >>>
> >>>
> >>
> >>
> >> Something is broken. Either at the transmitter or receiver. A
> >> mis-matched antenna couldn't possibly account for a poor quality
> >> picture at 20 feet. I presume this transmitter is designed to transmit
> >> a signal via antenna to source and not over transmission line. Here
> >> are some probable causes:
> >>
> >> 1) The transmitter output stage is broken.
> >> 2) The receiver is not working (see how well it picks up other
> >> stations).
> >> 3) The antenna at either end is disconnected.
> >> 4) There is Radio-frequency interference (RFI) such as from a
> >> computer.

> >>
> >> Frank Raffaeli
> >
> > Its my guess that the Transmitter has insufficient bandwidth and power
> > for that broad of a signal.
> > one must not forget the amount of band space a single channel takes.
>
> Did the OP go through the alignment procedure? Did the OP bother with
> antennas at all?
>
> Did either of you read the kit doc?
>
> Thanks,
> Rich

I didn't read the kit doc until just now. Not trivial for a beginner
to construct. Looks like fun, though. There are a lot of missteps in
the assembly / test procedure that could cause a "fuzzy" picture.
There are some useful hints for debugging though. Maybe there would be
a market for a better kit ...

I wonder if this transmitter complies with Part 15 regs?

Frank Raffaeli
http://www.aomwireless.com/

2935. Re: Parts Sources OnLine

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-07 02:13:30 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <MPG.1bce46135f5eacd989732@news-central.giganews.com>
Source record: 22868

In article <n9Z8d.6510$Vm1.154@newsread3.news.atl.earthlink.net>,
av8tor@licensed4funREMOVEBEFOREFLIGHT.com says...
> Just getting back into homebrewing and looking for the best sources of
> parts such as resistors, caps, boxes, etc.....
>
> Right now I'm need of a source of MGFxxxx gaasfets.
>
> Another question, is there a good online source where I can get specs on
> gaasfets, npn's transistors, etc.....
>
> George
>

Any part, not just a chip part #, can be plugged into
http://www.findchips.com .

Try 6AQ5, 2N2222, etc...

-- jm

---

http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

2936. OT: attn: gudmundur: Are you still doing SDK-85 stuff?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-07 03:51:40 UTC
From: nospam@nospam.net
Message-ID: <qle9m0p62jiocb0d65vdqu1uu4m2soaav7@4ax.com>
Source record: 22869

gudmundur,

I found your April '03 usenet post about the SDK-85 monitor and was unable contact you by email. I have some SDK-85 stuff as well, and have recently pulled it out of storage for a self induced ASM refresher. Several years ago I 'OCR'ed a printout of the SDK-85 monitor, with comments, from my school days and managed to get it to compile in Pseudo Sam. It may still have a few typos but it runs. I also did a simple 9600 bps serial mod which seems to work well. I would be intersted in the stack problems and improvements you mentioned.

Any interest in sharing info?

Thanks,

bigk

2937. 500MHz wideband filter design

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-07 05:12:10 UTC
From: Joel Kolstad <JKolstad71HatesSpam@Yahoo.Com>
Message-ID: <ck2j70$b0i$1@news.oregonstate.edu>
Source record: 22870

I was curious if anybody had ideas as to how to deal with the fractional pF capacitors that come out of 'first pass' filter design programs such as Elsie for filters up in the 70cm (and slightly shorter) range (50 ohm terminations on both ends, LC style)? I'm attempting to build a bandstop filter up there (20dB attenuation, 10MHz bandwidth), and I'm aware of the usage of microstrip traces as equivalent capacitors (and inductors), but the filter needs to be (approximately) flat all the way back down to the ~30MHz and using, e.g., lamba/8 microstrip sections would create repetition in the filter's response every quadrupling of the center frequency.

So... other than attempting to be clever and transforming the filter such that capacitance is increased... or scaling the system impedance (to... 20 ohms? Then I'm still stuck with 2-3pF values)... are there any good methods of implementing such a wideband filter design at these frequencies? Pointers to books, magazine articles, etc. would be appreciated.

Thanks,
---Joel Kolstad

2938. Re: Parts Sources OnLine

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-07 08:15:36 UTC
From: Eamon Skelton <Xnospam@oceanfree.net>
Message-ID: <2skcbqF1lg442U1@uni-berlin.de>
Source record: 22871

GeorgeF wrote:
> Just getting back into homebrewing and looking for the best sources of
> parts such as resistors, caps, boxes, etc.....
>
> Right now I'm need of a source of MGFxxxx gaasfets.

http://www.ghengineering.co.uk/index.htm

and

http://www.xs4all.nl/~barendh/Indexeng.htm

> Another question, is there a good online source where I can get specs on
> gaasfets, npn's transistors, etc.....

http://www.google.com

MGFxxx are Mitsubishi devices. The PDF data sheets are
often called <part number>.pdf. The MGF1302 filename is
mgf1302.pdf

http://www.mitsubishichips.com

73, Ed. EI9GQ.

--
Remove 'X' to reply via e-mail.
Linux 2.6.7

2939. Re: power output formula

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-07 08:28:13 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10m9vgv6mcqpu14@corp.supernews.com>
Source record: 22873

Bill, here's the story.

RMS and average are basic mathematical functions whose definitions you can find in numerous references(*). I'll state them here.

The average value of any periodic function is the time integral over a cycle of the instantaneous value of the function, divided by the period.

The RMS value of any periodic function is the square root of the average (mean value) of the square of the function, where the average is defined as above.

First, let's look at these two values for a sine wave with peak amplitude of V. The instantaneous value (value at any time t) is V * sin(wt) where w is omega = 2 * pi * frequency. The integral over a cycle is zero (since the wave spends equal amounts of time at equal amplitudes above and below zero), so the average value is zero. Some careless references will give a non-zero value for the "average" of a sine wave, but this is really the average of the absolute value (that is, the full-wave rectified value) of the sine wave. The actual average value of a sine wave with no DC offset is zero. (If it has a DC offset, the average value is simply the value of the offset.)

The RMS value of the sine wave is the square root of the average of the square of the original sine function, which is V^2 * sin^2(wt). If you graph this, you see that it looks like a rectified sine wave -- it never goes negative. If you go through with the math to get the average of this squared function, you get the nice value of V^2 / 2 for the average, hence V / sqrt(2) ~ 0.707 * V for the RMS.

Now let's apply that sine wave to a resistor and look at the power.

The *instantaneous* power, that is the power at any instant, dissipated by the resistor is v * i = v^2 / R where v is the instantaneous value of the voltage: v = V * sin(wt). So v^2 / R = V^2 * sin^2(wt) / R. Look familiar? So what's the average power? Using the definition of average, the average power is the integral over a period of the instantaneous power, divided by the period. In other words, it's average value of V^2 * sin^2(wt) / R. Looking at what we did to get the RMS voltage above, you can see that the average power is simply the square of the RMS voltage, divided by R.

That's why the *average* power is the square of the *RMS* voltage divided by R. It's important to realize that this holds true for any periodic voltage function -- square wave, triangle wave, what have you.

You can use the basic definition of RMS to calculate an RMS value of power from the instantaneous power, but it's not useful for anything. A resistor dissipating 10 watts of average power gets exactly as hot if that average power is supplied by DC, a sine wave, or any other waveform. That's not true of the RMS power -- different waveforms producing the same average power and causing the same amount of heat will produce different RMS powers. So average power is a very useful value, while RMS power is not.

The only thing that makes RMS voltage or current useful at all or worthwhile calculating is its relationship to the useful quantity of average power.

(*)You were asking for references -- you can find the definition of average on p. 254 and RMS on p. 255 of Pearson and Maler, _Introductory Circuit Analysis_, and average on p. 423 and RMS on p. 424 of Van Valkenburg, _Network Analysis_. You'll also find an explanation in both books similar to the one I just gave. These happen to be the two basic circuit analysis texts I have on my shelf -- you should be able to find the same explanation in just about any other circuits text.

Roy Lewallen, W7EL

2940. Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-07 11:00:52 UTC
From: "Daniel Kelly (AKA Jack)" <d.kellyNOSPAM@NOSPAM.ucl.ac.uk>
Message-ID: <ck37fb$76u$1@uns-a.ucl.ac.uk>
Source record: 22874
Cross-posted to: alt.radio.broadcasting,alt.radio.pirate,alt.radio.uk,alt.video.equipment.broadcast,rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur,uk.tech.broadcast

Hello,

I need to built a simple, cheap antenna system for a 2.GHz audio-video link.
At the moment I'm just using thick wire as the antennas on the transmitter
and receiver. This system works surprisingly well... except for one little
glitch:

While moving the transmitter, I find there are small, highly localised
patches of space where the radio link fails completely. These "dead"
patches of space are only a few square centimetres in size.

I'm not a radio engineer so I'm not too sure what's going on. If I was
forced to make an educated guess then I'd say the problem was caused by
interference caused by reflected, out-of-phase signals. For example, it's
conceivable that the receiver could be picking up two 'copies' of the
transmission from the TX - one 'copy' is the direct signal, the other 'copy'
is a signal that has bounced off some surface - these two 'copies' would
cancel eachother out when they're 180 degrees out of phase.

So... this brings me to the question I posed in the subject line: why do
WiFi basestations use two antennas? For example, my 3Com basestation has
two little whip antennas sticking out the back. Are these two antennas used
to combat the problem that I am experiencing? If so, how can I implement
two antennas on my system?

If not, how else can I combat the problem I am experiencing?

A little more info about my system:
The system is part of a wearable camera with recorder. The camera,
transmitter, microphone and a battery are all worn in a hat. The receiver,
recorder and battery are worn in a bag. The system doesn't have to transmit
very far (only a few meters) but I do need the signal to be stable.

2941. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-07 11:21:25 UTC
From: Arthur <arthur@nospam.com>
Message-ID: <opsfhy5zrn7mtvmf@home2.mshome.net>
Source record: 22875
Cross-posted to: alt.radio.broadcasting,alt.radio.pirate,alt.radio.uk,alt.video.equipment.broadcast,rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur,uk.tech.broadcast

On Thu, 7 Oct 2004 12:00:52 +0100, Daniel Kelly (AKA Jack)
<d.kellyNOSPAM@NOSPAM.ucl.ac.uk> wrote:

> I'm not a radio engineer so I'm not too sure what's going on. If I was
> forced to make an educated guess then I'd say the problem was caused by
> interference caused by reflected, out-of-phase signals. For example,
> it's
> conceivable that the receiver could be picking up two 'copies' of the
> transmission from the TX - one 'copy' is the direct signal, the other
> 'copy'
> is a signal that has bounced off some surface - these two 'copies' would
> cancel eachother out when they're 180 degrees out of phase.
>
Yout assumption is absolutely correct

> So... this brings me to the question I posed in the subject line: why do
> WiFi basestations use two antennas? For example, my 3Com basestation has
> two little whip antennas sticking out the back. Are these two antennas
> used
> to combat the problem that I am experiencing? If so, how can I implement
> two antennas on my system?
>
It's a technique called 'space diversity' that is also used in many radio
systems such as radio microphones and cellular radio. Two separate
receive aerials are used, on the principle that they are unlikely to both
be in a null at the same instant. There are various techniques to
implement this which range from simply coupling the two antennas together
to having entirely separate receivers and just selecting the best signal.
In your case it will complicate things considerably I'm afraid.

-Arthur

2942. Re: Parts Sources OnLine

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-07 12:50:48 UTC
From: xpyttl <xpyttl_NOSPAM@earthling.net>
Message-ID: <10maetci20npl69@corp.supernews.com>
Source record: 22876

"GeorgeF" <av8tor@licensed4funREMOVEBEFOREFLIGHT.com> wrote in message news:n9Z8d.6510$Vm1.154@newsread3.news.atl.earthlink.net...

> Just getting back into homebrewing and looking for the best sources of
> parts such as resistors, caps, boxes, etc.....

Others have mentioned DigiKey - they are certainly my bread and butter parts source. Customer service is second to none, they have decent prices and most of the "normal" stuff. They are a little weak, however, on RF parts.

Dan's Small Parts and Kits http://danssmallpartsandkits.net has a lot of the hard to get stuff, and generally at very, very good prices. However, he only takes orders by snail mail, so with the post office being used in two directions, you need to be prepared to wait a while.

W8DIZ http://partsandkits.com has a selection of toroids, and assorted other parts. He doesn't have a lot of stuff, but what he does have is usually at very good prices.

BG Micro http://www.bgmicro.com has a changing collection of stuff. Sometimes you can get very good deals on things like LCDs, cases and switches. They tend to be the high-priced spread on crystals and IC's, however. Also, sometimes their stuff is surplus or pulls. Be sure to read carefully.

For hardware, Mendelsohn's http://www.meci.com is a great source. They have some pretty strange stuff and their collection changes all the time. Like BG, for some things they seem to be a little pricey, but for others, they can't be beat. If you get a chance to go to Dayton, plan on bringing back many pounds of nuts and bolts from these guys. Typically they will sell many hard to get little bits by the pound.

If you need some RF thingie badly, RF Parts http://www.rfparts.com is sometimes the only place. They seem to have the highest prices on the planet, but if you need a high power RF transistor or a transmitting cap, there may be no other source.

> Another question, is there a good online source where I can get specs on
> gaasfets, npn's transistors, etc.....

Poke the part number into Google. Generally it will return links to datasheets in more languages than you knew there were.

..

2943. Re: 500MHz wideband filter design

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-07 12:59:19 UTC
From: Dale Parfitt <par@parelectronics.com>
Message-ID: <H4b9d.13607$1g5.245@trnddc07>
Source record: 22877

"Joel Kolstad" <JKolstad71HatesSpam@Yahoo.Com> wrote in message
news:ck2j70$b0i$1@news.oregonstate.edu...
> I was curious if anybody had ideas as to how to deal with the fractional
pF
> capacitors that come out of 'first pass' filter design programs such as
> Elsie for filters up in the 70cm (and slightly shorter) range (50 ohm
> terminations on both ends, LC style)? I'm attempting to build a bandstop
> filter up there (20dB attenuation, 10MHz bandwidth), and I'm aware of the
> usage of microstrip traces as equivalent capacitors (and inductors), but
the
> filter needs to be (approximately) flat all the way back down to the
~30MHz
> and using, e.g., lamba/8 microstrip sections would create repetition in
the
> filter's response every quadrupling of the center frequency.
>
> So... other than attempting to be clever and transforming the filter such
> that capacitance is increased... or scaling the system impedance (to... 20
> ohms? Then I'm still stuck with 2-3pF values)... are there any good
methods
> of implementing such a wideband filter design at these frequencies?
> Pointers to books, magazine articles, etc. would be appreciated.
>
> Thanks,
> ---Joel Kolstad
>
> Hi Joel,
Perhaps you can give us some additional number? What sort of attenuation
level do you require? Where are the -3dB corners? What is the tolerbale
passband return loss?
You mention the filter needing to be good down to 30MHz, but no mention of
characteristics above 70cM. A 10MHz wide bandstop filter with decent
attenuation at 70cM is going to be complex. Would perhaps an elliptic LPF
also work? Do you need the full 10 MHz of stop frequency?
I use the Genesys simulator/synthesizer package which is highly flexible,
allowing real time filter tuning- but ALWAYS try to avoid a wide spread in
component values and very small capacities.

73,

Dale W4OP

2944. Noise Figure Measurements

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-07 13:19:24 UTC
From: skavanagh72nospam@yahoo.ca
Message-ID: <5249fb3f.0410070519.2a1d4f3a@posting.google.com>
Source record: 22878

I've been playing with trying to make rough noise figure measurements on the cheap and have a couple of questions:

(1) Are there any issues with the following setup and procedure for making relative noise figure measurements (e.g. comparing two receivers) ?

Procedure:
(a) For receiver 1 connect a high impedance AC voltmeter to the audio output marked "0 dB". Record voltage with noise source off.
(b) Turn noise source on and measure AC voltage at "-3 dB" output. Adjust step attenuator to get same voltage as in step (a). Record step attenuator setting.
(c) Repeat steps (a) and (b) for receiver 2.
(d) The difference in noise figure between the two receivers is the same as the difference in attenuator settings recorded in (b) and (c). For example if the attenuation for receiver 1 is 10 dB and for receiver 2 is 12 dB, then receiver two has a noise figure which is 2 dB less than that of receiver 1.

Assuming this is OK we move on to question 2:

(2) To avoid the expense of a calibrated noise source, I wonder if the repeatability from unit to unit of simple low noise amplifier circuits (perhaps a MAR-6 ?) is good enough to allow one to be used as a noise figure standard, at least for fairly rough measurements at HF and VHF. I am hoping that accuracies of +/- 1 to 2 dB might be achievable. Has anyone measured the NF performance of simple MMIC amps at HF & VHF ? Or looked into noise figure repeatability ?

73,
Steve VE3SMA

2945. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-07 14:30:50 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <5okam0d8i2qh7emsfa6dbdg7oqca17m4cu@4ax.com>
Source record: 22879
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur,uk.tech.broadcast

On Thu, 7 Oct 2004 12:00:52 +0100, "Daniel Kelly \(AKA Jack\)"
<d.kellyNOSPAM@NOSPAM.ucl.ac.uk> wrote:

>A little more info about my system:
>The system is part of a wearable camera with recorder. The camera,
>transmitter, microphone and a battery are all worn in a hat.

A hat?? What kind of a weirdo are you?
--

"What is now proved was once only imagin'd." - William Blake, 1793.

2946. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-07 14:37:47 UTC
From: Gordon Hudson <gordon@usenet2.hostroute.co.uk>
Message-ID: <416554bb$0$94919$5a6aecb4@news.aaisp.net.uk>
Source record: 22880
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur,uk.tech.broadcast

"Paul Burridge" <pb@notthisbit.osiris1.co.uk> wrote in message
news:5okam0d8i2qh7emsfa6dbdg7oqca17m4cu@4ax.com...
> On Thu, 7 Oct 2004 12:00:52 +0100, "Daniel Kelly \(AKA Jack\)"
> <d.kellyNOSPAM@NOSPAM.ucl.ac.uk> wrote:
>
>>A little more info about my system:
>>The system is part of a wearable camera with recorder. The camera,
>>transmitter, microphone and a battery are all worn in a hat.
>
> A hat?? What kind of a weirdo are you?

Defintely a suitable candidate for an Amateur Radio licence.
So you think he owns a parka?

2947. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-07 14:44:59 UTC
From: "Daniel Kelly (AKA Jack)" <d.kellyNOSPAM@NOSPAM.ucl.ac.uk>
Message-ID: <ck3kji$l2a$1@uns-a.ucl.ac.uk>
Source record: 22881
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur,uk.tech.broadcast

Ha...

No, I don't own a parka!

The hat is for a psychology experiment.

"Gordon Hudson" <gordon@usenet2.hostroute.co.uk> wrote in message
news:416554bb$0$94919$5a6aecb4@news.aaisp.net.uk...
>
> "Paul Burridge" <pb@notthisbit.osiris1.co.uk> wrote in message
> news:5okam0d8i2qh7emsfa6dbdg7oqca17m4cu@4ax.com...
> > On Thu, 7 Oct 2004 12:00:52 +0100, "Daniel Kelly \(AKA Jack\)"
> > <d.kellyNOSPAM@NOSPAM.ucl.ac.uk> wrote:
> >
> >>A little more info about my system:
> >>The system is part of a wearable camera with recorder. The camera,
> >>transmitter, microphone and a battery are all worn in a hat.
> >
> > A hat?? What kind of a weirdo are you?
>
> Defintely a suitable candidate for an Amateur Radio licence.
> So you think he owns a parka?
>
>

2948. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-07 15:15:20 UTC
From: Gordon Hudson <gordon@usenet2.hostroute.co.uk>
Message-ID: <41655d88$0$94921$5a6aecb4@news.aaisp.net.uk>
Source record: 22882
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur,uk.tech.broadcast

"Daniel Kelly (AKA Jack)" <d.kellyNOSPAM@NOSPAM.ucl.ac.uk> wrote in message
news:ck3kji$l2a$1@uns-a.ucl.ac.uk...
> Ha...
>
> No, I don't own a parka!
>
> The hat is for a psychology experiment.

Go to an amateur radio rally and you will see what I meant.
Grubby parkas and amaruer rado seem to go together like....

2949. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-07 15:25:49 UTC
From: Dave D <dave-d@dave-d.com>
Message-ID: <41655ffb$0$918$cc9e4d1f@news-text.dial.pipex.com>
Source record: 22883
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur,uk.tech.broadcast

"Daniel Kelly (AKA Jack)" <d.kellyNOSPAM@NOSPAM.ucl.ac.uk> wrote in message
news:ck3kji$l2a$1@uns-a.ucl.ac.uk...
> Ha...
>
> No, I don't own a parka!
>
> The hat is for a psychology experiment.
>
>

Is it anything like the one Homer Simpson used for a 'covert' operation
against the Kwiki-Mart?

Dave

2950. Spectrum Analyzer vs. Field Strength Analyzer

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-07 15:26:11 UTC
From: lrttest@yahoo.com
Message-ID: <54d52bd3.0410070726.24289097@posting.google.com>
Source record: 22884

I am looking for a handheld Spectrum Analyzer BK2650 (Link1 below) or Field Strength Analyzer Protek 3290 (Link2). The problem is that I cannot see the major differences between them, yet there's a major price difference of $1000-2000. Can anyone tell me what the major differences between a spectrum analyzer and Field Strength Analyzer? Is it in demodulation ways, sweep speed, display freq span, or some extra stuff that I do not need as an amateur/electronics hobbyist? Thanks.

Reference pictures:

Link1 http://www.testequipmentdepot.com/b+k%20precision/2650.htm
Link2 http://www.contacteast.com/product/group.asp?parent_id=10977

2951. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-07 15:34:26 UTC
From: "Daniel Kelly (AKA Jack)" <d.kellyNOSPAM@NOSPAM.ucl.ac.uk>
Message-ID: <ck3nga$18ks$1@uns-a.ucl.ac.uk>
Source record: 22885
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur,uk.tech.broadcast

I didn't see that episode.

But I hope not - mine should be covert enough to go un-noticed in everyday
situations (going to the pub, taking the tube etc)

Jack.

"Dave D" <dave-d@dave-d.com> wrote in message
news:41655ffb$0$918$cc9e4d1f@news-text.dial.pipex.com...
>
> "Daniel Kelly (AKA Jack)" <d.kellyNOSPAM@NOSPAM.ucl.ac.uk> wrote in
message
> news:ck3kji$l2a$1@uns-a.ucl.ac.uk...
> > Ha...
> >
> > No, I don't own a parka!
> >
> > The hat is for a psychology experiment.
> >
> >
>
> Is it anything like the one Homer Simpson used for a 'covert' operation
> against the Kwiki-Mart?
>
>
> Dave
>
>

2952. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-07 15:51:35 UTC
From: brainz <dontuse@spamtrap.con>
Message-ID: <2sl6n6F1l1og4U1@uni-berlin.de>
Source record: 22886
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur,uk.tech.broadcast

"Daniel Kelly (AKA Jack)" <d.kellyNOSPAM@NOSPAM.ucl.ac.uk> wrote

> I need to built a simple, cheap antenna system for a 2.GHz audio-video
link.
> At the moment I'm just using thick wire as the antennas
and .....
> No, I don't own a parka!
> The hat is for a psychology experiment.

great post and replies ;)
I'd just like to say you'd find a warm welcome in 'uk.radio.amateur' I
would'nt wonder. It'd be a good place to get the ham 'theorists' going
regarding the single / twin antenna question. I've seen these home made 2
Gig antennas before
and as a ham myself, I appreciate that sort of thing.
Kind Regards
brainz

2953. Re: 500MHz wideband filter design

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-07 16:25:34 UTC
From: k7itm@aol.com
Message-ID: <3200347.0410070825.1616ca59@posting.google.com>
Source record: 22887

What order filter (how many capacitors)? What sort of power level?
Guess I'd look at trimming the capacitances. I have a bunch of
0.5-5pF trimmer caps that I might use for such a filter. Or, I'd get
a big pile of 1pF, 1.2pF, 1.5pF, ...etc and select caps that measured
correctly. Since 10MHz really isn't a very big percentage bandwidth,
I'd probably go for trimmer caps, and tune the whole filter using a
network analyzer to monitor its response. Does your filter design
program give you the resonant frequencies of each resonator? -- Does
your design not have some really small inductances, too??

Cheers,
Tom

"Joel Kolstad" <JKolstad71HatesSpam@Yahoo.Com> wrote in message
news:<ck2j70$b0i$1@news.oregonstate.edu>...
> I was curious if anybody had ideas as to how to deal with the fractional pF
> capacitors that come out of 'first pass' filter design programs such as
> Elsie for filters up in the 70cm (and slightly shorter) range (50 ohm
> terminations on both ends, LC style)? I'm attempting to build a bandstop
> filter up there (20dB attenuation, 10MHz bandwidth), and I'm aware of the
> usage of microstrip traces as equivalent capacitors (and inductors), but the
> filter needs to be (approximately) flat all the way back down to the ~30MHz
> and using, e.g., lamba/8 microstrip sections would create repetition in the
> filter's response every quadrupling of the center frequency.
>
> So... other than attempting to be clever and transforming the filter such
> that capacitance is increased... or scaling the system impedance (to... 20
> ohms? Then I'm still stuck with 2-3pF values)... are there any good methods
> of implementing such a wideband filter design at these frequencies?
> Pointers to books, magazine articles, etc. would be appreciated.
>
> Thanks,
> ---Joel Kolstad

2954. Re: Spectrum Analyzer vs. Field Strength Analyzer

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-07 16:31:24 UTC
From: Joel Kolstad <JKolstad71HatesSpam@Yahoo.Com>
Message-ID: <PqCdndYSZq_G8vjcRVn-oA@comcast.com>
Source record: 22888

"J Autt" <lrttest@yahoo.com> wrote in message
news:54d52bd3.0410070726.24289097@posting.google.com...
>I am looking for a handheld Spectrum Analyzer BK2650 (Link1 below) or
> Field Strength Analyzer Protek 3290 (Link2). The problem is that I
> cannot see the major differences between them, yet there's a major
> price difference of $1000-2000. Can anyone tell me what the major
> differences between a spectrum analyzer and Field Strength Analyzer?

Off-the-cuff, I'd suggest that one large reason for the price difference that while B+K Precision is a pretty 'well known' US company (not in the same league as, say, Fluke, but close), Protek is a Taiwanese company that is nowhere near as well known. Their manufacturing costs may be significantly less as well. I have a "GC Electronics" brand power supply that's a virtual clone of a Tektronix power supply... it cost something like $600, while the Real McCoy was more like $1300!

I'll be curious to see what others have to say...

2955. Re: 500MHz wideband filter design

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-07 16:39:57 UTC
From: Joel Kolstad <JKolstad71HatesSpam@Yahoo.Com>
Message-ID: <xrGdnatiutnO7PjcRVn-vw@comcast.com>
Source record: 22889

Hi Tom,

"Tom Bruhns" <k7itm@aol.com> wrote in message
news:3200347.0410070825.1616ca59@posting.google.com...
> What order filter (how many capacitors)?

Looks like I can get away with a third order; just a pi or tee.

> What sort of power level?

1W.

> Does your filter design
> program give you the resonant frequencies of each resonator?

Yes, or at least I can calculate it readily enough.

> Does
> your design not have some really small inductances, too??

They're in the 'hundreds of nanohenries' range. With them I've been more worried about obtaining decent Q's than the actual values, in that parasitics would seem to be much more comparable to the size of the caps than the inductors.

Thanks for your advice,
---Joel

2956. re: Electronics surplus / ham shops Boston ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-07 17:07:54 UTC
From: RobO <noone@home.tonite>
Message-ID: <ck3t58kpc1@news7.svr.pol.co.uk>
Source record: 22890

Hi
I am not aware of any electronics surplus shops or ham radio shops that might be worth visiting, but you could try the following link and do a search?
http://www.linc2u.com/boston/sites/azindex.htm

2957. Re: power output formula

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-07 17:46:34 UTC
From: Gary Schafer <gaschafer@comcast.net>
Message-ID: <b40bm0t3iak7nlaqpve1l6kueaq9q00d75@4ax.com>
Source record: 22891

On Thu, 07 Oct 2004 09:04:08 -0700, Bill Turner <noway@nohow.com>
wrote:

>On Thu, 07 Oct 2004 01:28:13 -0700, Roy Lewallen <w7el@eznec.com> wrote:
>
>>You can use the basic definition of RMS to calculate an RMS value of
>>power from the instantaneous power, but it's not useful for anything. A
>>resistor dissipating 10 watts of average power gets exactly as hot if
>>that average power is supplied by DC, a sine wave, or any other
>>waveform. That's not true of the RMS power -- different waveforms
>>producing the same average power and causing the same amount of heat
>>will produce different RMS powers. So average power is a very useful
>>value, while RMS power is not.
>
>____
>
>That goes against everything I've ever read about RMS power, at least
>for sine waves. I have always heard that a certain value of RMS power
>produces the same heating as the same value of DC power. In your
>statement above, you say that's true only for average power, not RMS,
>and is true for *any* waveform, including sine waves.
>
>Is there a new world order?

Bill,

If you read carefully in any of the handbooks where they discuss the
resistor heating by AC compared to DC you will see that they say "RMS
VOLTAGE that causes the same amount of heating in a resistor as the
same amount of DC voltage". They do not say the same amount of RMS
power.

Since a constant DC voltage would equate to average power in a
resistor, then if the same amount of AC RMS voltage causes the same
amount of heat it has to also be average power that it produces.

73
Gary K4FMX

2958. MARINE VHF

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-07 18:03:07 UTC
From: ON4VM <ageirna@skynet.be>
Message-ID: <41658405$0$862$ba620e4c@news.skynet.be>
Source record: 22892

Can Anyone help for a diagram from:

Navico Axis VHF RT 1200.

Thanks

ON4VM

2959. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-07 18:47:06 UTC
From: "Jock." <real_class_a@yahoo.co.uk>
Message-ID: <vn3bm0pl767huvq9aq514lbkph8kiqp50e@4ax.com>
Source record: 22893
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur,uk.tech.broadcast

On Thu, 7 Oct 2004 16:15:20 +0100, "Gordon Hudson" <gordon@usenet2.hostroute.co.uk>
wrote:

>"Daniel Kelly (AKA Jack)" <d.kellyNOSPAM@NOSPAM.ucl.ac.uk> wrote in message
>news:ck3kji$l2a$1@uns-a.ucl.ac.uk...
>> Ha...
>>
>> No, I don't own a parka!
>>
>> The hat is for a psychology experiment.
>
>Go to an amateur radio rally and you will see what I meant.
>Grubby parkas and amaruer rado seem to go together like....

You must be Starr. May I have my ï¿½10 please?

--

Jock.

Even the most scornful of Welshmen can feel a modicum
of sympathy for the English, who must now employ a
cast-off Scandinavian to manage their limp excuse for
a football team.
- John Humphreys, Broadcaster.

2960. Re: 500MHz wideband filter design

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-07 19:08:27 UTC
From: k7itm@aol.com
Message-ID: <3200347.0410071108.6676bd6e@posting.google.com>
Source record: 22894

Another issue you'll have to deal with if you don't do some scaling of some sort is that the inductors that go with the fractional-pF capacitors will have significant parasitic capacitance...you're likely going to get self-resonant frequencies not far above the filter stopband frequency (or worse). It would help a lot if you could make the filter stopband considerably wider. Seems like with a 10MHz stopband, you're asking for filter performance not too unlike a duplexer.

You mentioned the need for the filter to be flat down to low frequencies, but what about higher frequencies? Are the repetitions which are common in distributed (transmission-line) filters really a problem? Or do you need to pass all the higher frequencies too?

Cheers,
Tom

"Joel Kolstad" <JKolstad71HatesSpam@Yahoo.Com> wrote in message news:<ck2j70$b0i$1@news.oregonstate.edu>...
> I was curious if anybody had ideas as to how to deal with the fractional pF
> capacitors that come out of 'first pass' filter design programs such as
> Elsie for filters up in the 70cm (and slightly shorter) range (50 ohm
> terminations on both ends, LC style)? I'm attempting to build a bandstop
> filter up there (20dB attenuation, 10MHz bandwidth), and I'm aware of the
> usage of microstrip traces as equivalent capacitors (and inductors), but the
> filter needs to be (approximately) flat all the way back down to the ~30MHz
> and using, e.g., lamba/8 microstrip sections would create repetition in the
> filter's response every quadrupling of the center frequency.
>
> So... other than attempting to be clever and transforming the filter such
> that capacitance is increased... or scaling the system impedance (to... 20
> ohms? Then I'm still stuck with 2-3pF values)... are there any good methods
> of implementing such a wideband filter design at these frequencies?
> Pointers to books, magazine articles, etc. would be appreciated.
>
> Thanks,
> ---Joel Kolstad

2961. Re: power output formula

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-07 19:11:11 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10mb56jnjspr4be@corp.supernews.com>
Source record: 22895

Bill Turner wrote:
> On Thu, 07 Oct 2004 01:28:13 -0700, Roy Lewallen <w7el@eznec.com> wrote:
>
>
>>You can use the basic definition of RMS to calculate an RMS value of
>>power from the instantaneous power, but it's not useful for anything. A
>>resistor dissipating 10 watts of average power gets exactly as hot if
>>that average power is supplied by DC, a sine wave, or any other
>>waveform. That's not true of the RMS power -- different waveforms
>>producing the same average power and causing the same amount of heat
>>will produce different RMS powers. So average power is a very useful
>>value, while RMS power is not.
>
>
> ____
>
> That goes against everything I've ever read about RMS power, at least
> for sine waves. I have always heard that a certain value of RMS power
> produces the same heating as the same value of DC power.

I'd be interested in where you've read this. It's wrong. I suspect that
if you go back and read carefully, you'll find that it's the RMS value
of the voltage or current that causes the same heating as the same DC
value, not the RMS value of the power.

Incidentally, I should mention that "RMS power" is used by the makers of
audio amplifiers. About four years ago, this topic came up on
rec.radio.amateur.antenna, and Jim Kelley commented about it:

Jim Kelley wrote:

> I found out the answer to this usage of RMS power. The audio folks
> have co-opted the RMS idea to mean the following: If the signal is a
> single sine wave, then RMS power is understood to mean the average
> power output due to that sine wave. It is deceptive to the following
> extent: An amplifier with a certain "RMS power rating" may go
> completely flat on peaks that are only a little greater than the RMS
> rating. Anyway, the use of the term is pervasive.

So the term is sometimes used in the consumer audio world, although
incorrectly. One shouldn't look to the audio consumer world for accurate
technical information about anything.

> In your
> statement above, you say that's true only for average power, not RMS,
> and is true for *any* waveform, including sine waves.

Let me demonstrate my statement about the average power being the square of the RMS voltage divided by R for any waveform.

Call the voltage time waveform v(t). This was V * sin(wt) for my sine wave example, but let it be any periodic waveform. The RMS value of the voltage Vrms is, by definition, sqrt(avg(v(t)^2)). Applied to a resistor, the power time waveform p(t) is v(t)^2/R, so the average power is avg(p(t)) = avg(v(t)^2/R) = avg(v(t)^2)/R. (The 1/R term can be moved out of the average since it doesn't vary with time -- the time average of 1/R = 1/R.) From the definition of RMS voltage, you can see that avg(v(t)^2)/R is simply Vrms^2/R. This was demonstrated without any assumption about the nature of v(t) except that it's periodic.

The RMS power caused by that v(t) waveform would be sqrt(avg(p(t)^2)) = sqrt(avg(v(t)^4/R^2)) = sqrt(avg(v(t)^4))/R. This is different from the average, with the size of the difference depending on the shape of the waveform.

> Is there a new world order?

No, but hopefully there's some new knowledge being gained.

Roy Lewallen, W7EL

2962. Re: Spectrum Analyzer vs. Field Strength Analyzer

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-07 19:26:35 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10mb63g32o0ut6a@corp.supernews.com>
Source record: 22896

Making a basic spectrum analyzer isn't very hard. What's hard is to make one that has a high dynamic range while at the same time maintaining a decent noise figure, and one that's free from spurs. Filter quality (slope factor) and number of bandwidth options are areas that were expensive and therefore often slighted, although that's probably done now with digital filtering. I'd take a close look at those specs, and be cautious if they're absent. There's a reason the well known companies are well known. They've earned their reputations by producing quality equipment that always meets the advertised specifications.

Sorry, while I know just what a spectrum analyzer is, I don't know about a "field strength analyzer".

Roy Lewallen, W7EL

Joel Kolstad wrote:

> "J Autt" <lrttest@yahoo.com> wrote in message
> news:54d52bd3.0410070726.24289097@posting.google.com...
>
>>I am looking for a handheld Spectrum Analyzer BK2650 (Link1 below) or
>>Field Strength Analyzer Protek 3290 (Link2). The problem is that I
>>cannot see the major differences between them, yet there's a major
>>price difference of $1000-2000. Can anyone tell me what the major
>>differences between a spectrum analyzer and Field Strength Analyzer?
>
>
> Off-the-cuff, I'd suggest that one large reason for the price difference
> that while B+K Precision is a pretty 'well known' US company (not in the
> same league as, say, Fluke, but close), Protek is a Taiwanese company that
> is nowhere near as well known. Their manufacturing costs may be
> significantly less as well. I have a "GC Electronics" brand power supply
> that's a virtual clone of a Tektronix power supply... it cost something like
> $600, while the Real McCoy was more like $1300!
>
> I'll be curious to see what others have to say...
>
>

2963. Re: Parts Sources OnLine

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-07 20:08:59 UTC
From: xpyttl <xpyttl_NOSPAM@earthling.net>
Message-ID: <10mb8iui06pj1dc@corp.supernews.com>
Source record: 22897

"Bill Turner" <noway@nohow.com> wrote in message
news:u4pam05gici4elc2p5s4nil5b31b6kpite@4ax.com...
> On Thu, 7 Oct 2004 08:50:48 -0400, "xpyttl"
> <xpyttl_NOSPAM@earthling.net> wrote:

> RF Parts also has a $25. minimum order.

True. But at twenty bucks for a 2SC1968 it's pretty easy to reach $25!

DigiKey has, or maybe used to have, a fee for orders under $25, but they have so much stuff I can't live without that it's never an issue! Most places are going to charge $5-$10 for shipping, too, so tiny orders are a problem anyway.

One thing I should mention with DigiKey ... look at the shipping options and specify what you want. Their "default" seems to be 2nd day air, which can be pricey. Where I am, it sometimes saves a day, sometimes not, so at least for me, it's never worth it. But if you have to have that part tomorrow, DigiKey will ship it today if you call them before 8 PM Central time.

Once I ordered a part from them that needed special programming. Their programming person had left for the day so they were all in a panic when they realized they couldn't ship that evening. I told them it wasn't a big deal, but at 10 the next morning they called again to assure me that my $3 part had made it onto a truck.

..

2964. Re: 500MHz wideband filter design

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-07 20:16:26 UTC
From: Joel Kolstad <JKolstad71HatesSpam@Yahoo.Com>
Message-ID: <wZqdnUcPk5CIOfjcRVn-sA@comcast.com>
Source record: 22748

"Tom Bruhns" <k7itm@aol.com> wrote in message
news:3200347.0410071108.6676bd6e@posting.google.com...
> Another issue you'll have to deal with if you don't do some scaling of
> some sort is that the inductors that go with the fractional-pF
> capacitors will have significant parasitic capacitance...you're likely
> going to get self-resonant frequencies not far above the filter
> stopband frequency (or worse).

Yes, I can definitely appreciate that.

> It would help a lot if you could make
> the filter stopband considerably wider. Seems like with a 10MHz
> stopband, you're asking for filter performance not too unlike a
> duplexer.

Well, it's supposed to be an adjustable notch filter, from 30-500MHz, with a 2% stopband width... and it's at the high end where it's looking pretty challenging.

> You mentioned the need for the filter to be flat down to low
> frequencies, but what about higher frequencies? Are the repetitions
> which are common in distributed (transmission-line) filters really a
> problem?

At the higher frequencies, no. At lower frequency, yes! This might suggest breaking it up into two filter, since I could probably get 300-500MHz out of distributed filter. The problem there is how to set the center frequency... although simply using PIN diodes or similar to ground the transmission line somewhere along its length sounds promising.

---Joel

2965. Re: power output formula

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-07 21:11:20 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <ck4bim$b75$1@newshost.mot.com>
Source record: 22750

"Bill Turner" <noway@nohow.com> wrote in message
news:2lv8m01m0t1i6b8ea9s7dq5uqsbp1mps0b@4ax.com...
> On Wed, 6 Oct 2004 16:15:23 -0500, "Steve Nosko"
> <suteuve.nosukowicuz@moutouroula.com> wrote:
>
> >3- I disagree. An adjective or modifier isn't "needed" but it sure can
help
> >if there may be confusion as to just what the subject is.
>
> ____
>
> I think we're having a semantic-fest here. Steve says an adjective
> isn't "needed" but can help if there may be confusion.
>
> Well, if it helps avoid confusion, isn't it "needed". Or is confusion
> ok?
> --
> Bill W6WRT

Oh, I suppose, but I maintain this is something you determine within the discussion, then move on to cover the important aspects of the issue at hand. After moving on, you won't have to keep saying "Average Power' (or whatever is decided upon) each time you want to refer to it. You will just need to say "power", since you have defined the term. This is a semantic-fest, rather than a discussion of how to determine power. I've been in many, many discussions, where once the subject is defined, the word "power" is used repeatedly, never with any adjectives and no one had any problems.

You guys are too tied up in what is "official". It is what is in common usage that matters. define your terms and move on.
73
--
Steve N, K,9;d, c. i My email has no u's.

2966. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-07 21:34:44 UTC
From: john graesser <graesser@tca.net>
Message-ID: <10mbde2fs3g8u8b@corp.supernews.com>
Source record: 22749
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur,uk.tech.broadcast

"Gordon Hudson" <gordon@usenet2.hostroute.co.uk> wrote in message
news:41655d88$0$94921$5a6aecb4@news.aaisp.net.uk...
>
> "Daniel Kelly (AKA Jack)" <d.kellyNOSPAM@NOSPAM.ucl.ac.uk> wrote in
message
> news:ck3kji$l2a$1@uns-a.ucl.ac.uk...
> > Ha...
> >
> > No, I don't own a parka!
> >
> > The hat is for a psychology experiment.
>
> Go to an amateur radio rally and you will see what I meant.
> Grubby parkas and amaruer rado seem to go together like....

Sorry but down here in Texas no hams wear parkas. Down here everyone wears a
baseball cap.
thanks, John.
KC5DWD

2967. Re: power output formula

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-07 21:52:25 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <ck4dvnbjt1@newshost.mot.com>
Source record: 22751

"Bill Turner" <noway@nohow.com> wrote in message
news:hrl8m0hst45pssfvcp9a3cghucb0t5anes@4ax.com...
> On Wed, 06 Oct 2004 18:15:11 GMT, Gary Schafer <gaschafer@comcast.net>
> wrote:
>
> >How about "average power" the correct term.
>
> --
>
> This will be the third time I've asked for an official source for this
> "correct" term. If there is no reply, I shan't be asking again.
>
> --

What is official to you? It appears you are not sure what the word
'average' means.

Ask Jeeves gave quite a few official looking references for a search of
"average power"
http://ask.com/
See the ones that look like dictionaries of glossaries.

See the "graphics version":
http://www.abdn.ac.uk/physics/bio/fi20www/tsld016.htm

A search via Google and some poking around just gave me:
hyperphysics.phy-astr.gsu.edu/ hbase/electric/powerac.html
http://mitglied.lycos.de/radargrundlagen/primaer/pr22-en.html

http://www.twysted-pair.com/dictp.htm

http://www.csgnetwork.com/ohmslaw2.html

Power used by the human body on this one:
http://www.csgnetwork.com/ohmslaw2.html

Look Ma, No adjectives:
http://www.ffldusoe.edu/Faculty/Denenberg/Topics/Electronics/Alex_Pounds/Section6-10.htm#P
ower%20&%20%20energy

This should confuse you even more.
http://www.tpub.com/content/neets/14192/css/14192_15.htm

Then I found this !!
Looking for average power? eBay has great deals on new and used electronics,
cars, apparel, collectibles, sporting goods and more. If you can t find it
on eBay, it probably doesn t exist.

>
--
Steve N, K,9;d, c. i My email has no u's.

2968. Re: power output formula

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-07 22:16:17 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <ck4fcfbqb1@newshost.mot.com>
Source record: 22752

"Bill Turner" <noway@nohow.com> wrote in message
news:vqpam09vos1121coimithiui4ajvuqqr6j@4ax.com...
> On Thu, 07 Oct 2004 01:28:13 -0700, Roy Lewallen <w7el@eznec.com> wrote:
>
> >You can use the basic definition of RMS to calculate an RMS value of
> >power from the instantaneous power, but it's not useful for anything. A
> >resistor dissipating 10 watts of average power gets exactly as hot if
> >that average power is supplied by DC, a sine wave, or any other
> >waveform. That's not true of the RMS power -- different waveforms
> >producing the same average power and causing the same amount of heat
> >will produce different RMS powers. So average power is a very useful
> >value, while RMS power is not.
>
> ----------
>
> That goes against everything I've ever read about RMS power, at least
> for sine waves. I have always heard that a certain value of RMS power
> produces the same heating as the same value of DC power. In your
> statement above, you say that's true only for average power, not RMS,
> and is true for *any* waveform, including sine waves.
>
> Is there a new world order?
>
> --
> Bill W6WRT

Bill,
Please be careful here. You are confusing yourself. The passage you
quoted here is indeed correct, but I believe you are interpreting it
incorrectly because you are thinking of the term "RMS Power" as the "loosely
defined" term in the audio world also spelled "RMS Power".
The above passage is indeed correct IF you understand that it is
referring to an RMS value of the power waveform. (one of the links I posted
previously shows a power waveform in the "graphics version" link) This is a
mathematically defined "Root Mean Square" value of the power waveform. THIS
does indeed have no use. Calculating the Root-Mean-Square of a power
waveform does NOT produce the average power we think of as heating the same
as DC. We don't do it and in the Engineering community we don't use that
term at all. We talk about the 'true' or 'average power' to make things
clear, if needed.
However, the term bandied about in Audio circles which is also spelled
"RMS Power" means something completely different. One term - two meanings.
It has been used (as I gather from earlier posts) to mean what would be
correctly describes as: the average power produced by a channel of an audio

amplifier under sinewave signal conditions. This describes what is technically called "Average Power", but the audio folks saw a need to have something to hang their hat on we=hen talking about this measurement and, unfortunately picled something just to confuse you, Bill.
This is two different uses for the same phrase. The first is a mathematically defined value (the same math used to get RMS voltages) and the other is a commonly accepted meaning in a specific field.

Both can be correct IF you understand which deffinition is in use.

>

2969. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-08 05:53:55 UTC
From: m <m@tek.com>
Message-ID: <41662b7a$0$74189$39cecf19@news.twtelecom.net>
Source record: 22753
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

I agree also that the second antenna is for diversity but none of the
manufactures can answer why it is needed if spread spectrum is suppose to be
so innately fade resistant, even though the spread spectrum Wifi is using
now with CCK isn't really truly random anymore.

Russ N7QR
russm at ieee dot org

"Arthur" <arthur@nospam.com> wrote in message
news:opsfhy5zrn7mtvmf@home2.mshome.net...
> On Thu, 7 Oct 2004 12:00:52 +0100, Daniel Kelly (AKA Jack)
> <d.kellyNOSPAM@NOSPAM.ucl.ac.uk> wrote:
>
> > I'm not a radio engineer so I'm not too sure what's going on. If I was
> > forced to make an educated guess then I'd say the problem was caused by
> > interference caused by reflected, out-of-phase signals. For example,
> > it's
> > conceivable that the receiver could be picking up two 'copies' of the
> > transmission from the TX - one 'copy' is the direct signal, the other
> > 'copy'
> > is a signal that has bounced off some surface - these two 'copies' would
> > cancel eachother out when they're 180 degrees out of phase.
> >
> Yout assumption is absolutely correct
>
>
> > So... this brings me to the question I posed in the subject line: why do
> > WiFi basestations use two antennas? For example, my 3Com basestation
has
> > two little whip antennas sticking out the back. Are these two antennas
> > used
> > to combat the problem that I am experiencing? If so, how can I
implement
> > two antennas on my system?
> >
> It's a technique called 'space diversity' that is also used in many radio
> systems such as radio microphones and cellular radio. Two separate
> receive aerials are used, on the principle that they are unlikely to both
> be in a null at the same instant. There are various techniques to
> implement this which range from simply coupling the two antennas together
> to having entirely separate receivers and just selecting the best signal.
> In your case it will complicate things considerably I'm afraid.
>
> -Arthur

2970. Re: Parts Sources OnLine

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-08 05:54:37 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <MPG.1bcfcb7babacea03989733@news-central.giganews.com>
Source record: 22754

In article <10mb8iui06pj1dc@corp.supernews.com>,
xpyttl_NOSPAM@earthling.net says...
> DigiKey has, or maybe used to have, a fee for orders under $25, but they
> have so much stuff I can't live without that it's never an issue! Most
> places are going to charge $5-$10 for shipping, too, so tiny orders are a
> problem anyway.
>
> One thing I should mention with DigiKey ... look at the shipping options and
> specify what you want. Their "default" seems to be 2nd day air, which can
> be pricey. Where I am, it sometimes saves a day, sometimes not, so at least
> for me, it's never worth it. But if you have to have that part tomorrow,
> DigiKey will ship it today if you call them before 8 PM Central time.
>
> Once I ordered a part from them that needed special programming. Their
> programming person had left for the day so they were all in a panic when
> they realized they couldn't ship that evening. I told them it wasn't a big
> deal, but at 10 the next morning they called again to assure me that my $3
> part had made it onto a truck.

Agreed, the Digi-Key guys are hardcore. I once posted a message to this
group criticizing the company for using expiring tokens in their part-
lookup URLs, and they actually saw it and responded to the criticism
with a workaround.

Digi-Key is not the cheapest vendor out there, but they set the standard
for everyone else to follow when it comes to service. It's not unfair
of them to charge extra for orders under $25. I don't want them losing
money on MY order (not that THAT will ever happen).

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

2971. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-08 07:57:51 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <dpecm0lmvgnelubpgvm3v36icrub6pnhbt@4ax.com>
Source record: 22755
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

On Thu, 7 Oct 2004 22:53:55 -0700, "m" <m@tek.com> wrote:

>I agree also that the second antenna is for diversity but none of the
>manufactures can answer why it is needed if spread spectrum is suppose to be
>so innately fade resistant, even though the spread spectrum Wifi is using
>now with CCK isn't really truly random anymore.

With very short direct and reflected paths typical in indoor
installations, you are not going to have multiple nulls within the
spread frequency range. In order for a spread spectrum system to work
properly in a multipath environment, there should be several multipath
nulls within the spread range. If there is only one wide dip covering
your spread range, it can take out most of your signal.

If the spread range is from say 2400 to 2430 MHz, the corresponding
wavelengths would be 125 - 123.5 mm so the spread in wavelengths is
1.5 mm so you would need at least a path difference 40 wavelengths or
5 m to get a phase difference of 180 degrees that would cancel the
signal at one end of the spread range but add up in the other end.

With a larger frequency spread or larger path distance between the
direct and reflected signal, the phase difference would be several
times 360 degrees and there would be multiple nulls (at 180, 540 etc
degrees) and multiple peaks, within the spread range, which the spread
spectrum modulation could easily tolerate.

Paul OH3LWR

2972. Re: power output formula

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-08 09:22:40 UTC
From: Eamon Skelton <Xnospam@oceanfree.net>
Message-ID: <2sn8rvF1mr472U1@uni-berlin.de>
Source record: 22756

Steve Nosko wrote:

> Then I found this !!
> Looking for average power? eBay has great deals on new and used electronics,
> cars, apparel, collectibles, sporting goods and more. If you can t find it
> on eBay, it probably doesn t exist.

Be thankful you weren't looking for 'average length'.

73, Ed. EI9GQ.

--
Remove 'X' to reply via e-mail.
Linux 2.6.7

2973. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-08 12:55:41 UTC
From: WB4JNX <ndlnews@comcast.net>
Message-ID: <h6GdnQAMR_jTE_vcRVn-rQ@comcast.com>
Source record: 22757
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur,uk.tech.broadcast

"Gordon Hudson" <gordon@usenet2.hostroute.co.uk> wrote in message
news:41655d88$0$94921$5a6aecb4@news.aaisp.net.uk...
> Go to an amateur radio rally and you will see what I meant.
> Grubby parkas and amaruer rado seem to go together like....

Don't forget those weird fabric blue jeans that are susposed to be blue
jeans but they look like polyester painted to look like blue jeans.
Usually worn with the greasy parkas.

2974. Re: power output formula

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-08 18:08:35 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10mdlt6r3ft7698@corp.supernews.com>
Source record: 22758

Bill,

Did you read what I wrote?

Or perhaps you don't believe it? If not, just pick up any textbook on basic electric circuit theory, where you'll find essentially the same explanation.

Roy Lewallen, W7EL

Bill Turner wrote:
> ----------
>
> Ok, I grant you that, but as I see it, in a resistive circuit RMS
> voltage causes RMS current to flow and the resultant power is RMS power.
> Why not?
>
> If DC volts x DC amps = DC power
>
> and
>
> Peak volts x peak amps = peak power
>
> then why does not
>
> RMS volts x RMS amps = RMS power?
>
> If you want to say that RMS power is the same as average power, I can
> live with that, but why say that RMS power is a meaningless concept?
>
> Oh well. You guys have given it a good try, but I remain unconvinced.
>
> Perhaps we should move on to the question of whether current flows from
> plus to minus or minus to plus. A lot of otherwise good engineers
> actually believe it to be the former. I love to hear them explain how a
> vacuum tube works. :-)
>
> --
> Bill W6WRT
>

2975. Re: 18nH Inductor--Thanks!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-08 18:33:12 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <l7GdnQVOu8_FQPvcRVn-hg@comcast.com>
Source record: 22759
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

"Joe" <nuisancewildlife@nospamearthlink.net> wrote in message
news:9FY8d.6482$Vm1.5039@newsread3.news.atl.earthlink.net...
> Thanks all for the suggestions, I have a dremel, and this might be a good
> project for me to learn how to use smt stuff. I will need to get a small
> lighted magnifier tho, cause my eyes ain't what they used to be, even with
> my reading glasses.
>
> Joe
>
Joe,
If you are like me, you will want to use 805 or larger SM. 402 type drive me
batty, and if you ever drop one on the floor, it is gone forever.

Tam/WB2TT

2976. Newbie J-Pole.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-08 19:35:43 UTC
From: Rose and Ian <rpetersen@cogeco.ca>
Message-ID: <CZB9d.270$q02.56585@read2.cgocable.net>
Source record: 22760

I am planning to build my first J-pole. Originally it was going to be a 2m only. I found a good web site,
gave me all the measurments and seemed simple enough. I then thought why not make it a dual band as I have a dual band mobile. Now the measurement have all changed and its seem much more complicated, Im not too good at following written instructions. Can anyone help, designs, measurements, web site with good pictures and instructions etc.

Any help gratefully recieved

Regards
Ian Smith
VA3SOF

2977. Re: power output formula

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-08 20:13:08 UTC
From: Joel Kolstad <JKolstad71HatesSpam@Yahoo.Com>
Message-ID: <m_udnby5LqAAafvcRVn-hQ@comcast.com>
Source record: 22761

"Bill Turner" <noway@nohow.com> wrote in message
news:ejqdm0l38q553bro7584fqovlc3idanddr@4ax.com...
> I'm becoming convinced this is more a question of semantics or of
> somebody's arbitrary definition than one of actual fact.

I'm think it's more a question of consistency. If you define RMS voltage and current a certain way (that we're all in agreement with), it stands to reason that "RMS foo" should have a comparable definition. As Roy has shown, using that same definition makes "RMS power" of questionable utility.

The fact that 'the audio guys' don't use that definition is unfortunate and something to be aware of, but arguably not something to be encouraged. :-) (On the other hand, getting the audio guys to agree to _any_ definitions can be dicey... their usage of 'RMS power' was motivated by other terms such as 'PEP' -- peak envelope power -- that have almost nothing to do with the utility of the amplifier whatsoever. It's not uncommon to see '100W PEP' amplifiers that come with little wall warts capable of delivering no more than, say, 3W average power.)

2978. Re: Newbie J-Pole.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-08 20:36:10 UTC
From: Richard Heindel <rheindel@neo.rr.com>
Message-ID: <_SC9d.17300$V06.2884@fe2.columbus.rr.com>
Source record: 22762

Hi Ian
Here's a link to a real nice dual-band j-pole that's easy to build.
http://www.arrowantennas.com/j-pole.html
copy the element lengths off this page (or print the page out) and then
click on INSTRUCTIONS
on the bottom of the page for the rest of the info. Has excellent swr across
both bands.
73
Richard WB8KRN

"Rose and Ian" <rpetersen@cogeco.ca> wrote in message
news:CZB9d.270$q02.56585@read2.cgocable.net...
> I am planning to build my first J-pole. Originally it was going to be a 2m
> only. I found a good web site,
> gave me all the measurments and seemed simple enough. I then thought why
not
> make it a dual band as I have a dual band mobile. Now the measurement have
> all changed and its seem much more complicated, Im not too good at
following
> written instructions. Can anyone help, designs, measurements, web site
with
> good pictures and instructions etc.
>
> Any help gratefully recieved
>
> Regards
> Ian Smith
> VA3SOF
>
>

2979. Re: power output formula

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-08 20:59:57 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10mdvui1luv0efb@corp.supernews.com>
Source record: 22763

Certainly there is such a thing as RMS power. It just isn't useful for anything. The definitions I used aren't arbitrary at all, but widely accepted and agreed upon. It's true that some amateurs and consumer audio marketers have chosen not to use the accepted definitions, but their inventions shouldn't be given equal weight to ones which have been used for centuries and are universally accepted by the math, physics, and engineering communities.

What's the problem with current flowing from plus to minus? I believe it was Ben Franklin who realized that there are two polarities of charge, and arbitrarily called one plus and one minus. If he had made the other choice, positive or negative charge would indeed flow the other way.

I've been through technical school, where current was considered to flow from minus to plus, and engineering school, where the opposite definition was used. You can use either method and arrive at the correct answer, but you end up with quite a few more minus signs with the minus-to-plus convention. Since engineering is highly mathematical, the plus-to-minus convention makes sense for engineering because of the somewhat simpler equations that result.

I've always thought that tech schools used the minus-to-plus convention because it made it easier for students to get an intuitive feel for how a vacuum tube operates. (It's hard to imagine positive charge leaving the plate and condensing on the hot cathode!) Now that fire-fets are (like some of us) largely relics of the past, and the importance of good communication between technicians and engineers is recognized, I'd be surprised if the minus-to-plus convention is still being taught even in tech schools -- if anyone has any recent information about this, I'd be interested to know.

Roy Lewallen, W7EL

Bill Turner wrote:
> On Fri, 08 Oct 2004 11:08:35 -0700, Roy Lewallen <w7el@eznec.com> wrote:
>
>
>>Did you read what I wrote?
>
>
> ____
>
> Yes, of course.
>
> I'm becoming convinced this is more a question of semantics or of
> somebody's arbitrary definition than one of actual fact.

>
> My real disagreement is with the statement "There is no such thing as
> RMS power". The rest of the arguments here I have no real quarrel with.
> As far as I can tell, all the math presented here is correct, with the
> exception of the fellow who the wrong factor when converting RMS voltage
> to peak power.
>
> To each his own.
>
> Now, what about that current flow from plus to minus? :-)
>
> --
> Bill W6WRT
>
>
>

2980. Re: power output formula

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-08 22:51:50 UTC
From: Gary Schafer <gaschafer@comcast.net>
Message-ID: <sf6em01806e3ja67in8v5knjcf3gv0vmm5@4ax.com>
Source record: 22764

On Fri, 08 Oct 2004 12:36:06 -0700, Bill Turner <noway@nohow.com>
wrote:

>On Fri, 08 Oct 2004 11:08:35 -0700, Roy Lewallen <w7el@eznec.com> wrote:
>
>>Did you read what I wrote?
>
>_____
>
>Yes, of course.
>
>I'm becoming convinced this is more a question of semantics or of
>somebody's arbitrary definition than one of actual fact.
>
>My real disagreement is with the statement "There is no such thing as
>RMS power". The rest of the arguments here I have no real quarrel with.
>As far as I can tell, all the math presented here is correct, with the
>exception of the fellow who the wrong factor when converting RMS voltage
>to peak power.
>
>To each his own.
>
>Now, what about that current flow from plus to minus? :-)

You may be reading what people wrote but you are doing selective
reading. You are only letting through things that agree with your
preconceived beliefs and blocking out the logic.

You have the bandwidth cranked in too tight, the notch filter set too
deep on the wrong side of the pass band and the noise blanker on. You
are complaining how bad the signals sound but if you read the manual
you may be able to clear the problem. :>)

Roy said that there is rms power but that it has nothing to do with
average power that we get when rms voltage and current are multiplied.

I and others have said that there is no such thing as rms power. That
is not a stand alone absolute fact obviously but in this context it is
meaningless.

You can find the rms value of any periodic wave just like you find the
rms value of voltage or current. But finding the rms value of power is
of no value. And you don't get it by multiplying rms voltage by rms
current. Again, once you multiply an rms value by another rms value
the answer you get is not rms.

Rms is not a title. It is the result of a mathematical operation.

Average power and rms power are not the same.

73
Gary K4FMX

2981. Re: power output formula

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-08 23:01:04 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10me71kaglf4e82@corp.supernews.com>
Source record: 22765

It's too bad you've chosen to limit your thinking in this way, but as long as you can fit everything that interests you into the box you've created, I guess it doesn't cause you any problems. I'd think you'd have to avoid such topics as lightning and positive ion generators, though.

It's a common mistake to equate "current" or "charge" with "electrons", but probably no more common than lack of understanding of what RMS and average mean. A lot of people seem to manage to maintain a more-or-less consistent view of electricity while carrying around some pretty mistaken ideas. In my experience, though, now and then they end up really stumped by something, while someone with a more complete view of basic electrical physics has an easy time understanding and analyzing what's going on. We all make our choices.

Roy Lewallen, W7EL

Bill Turner wrote:

> On Fri, 08 Oct 2004 13:59:57 -0700, Roy Lewallen <w7el@eznec.com> wrote:
>
>
>>What's the problem with current flowing from plus to minus?
>
>
> After much head-scratching, the only problem I can see is that it
> doesn't. It flows from minus to plus.
>
>
>
>
>>I believe it
>>was Ben Franklin who realized that there are two polarities of charge,
>>and arbitrarily called one plus and one minus. If he had made the other
>>choice, positive or negative charge would indeed flow the other way.
>
>
> Murphy triumphs again.
>
> What you say about the mathematics being made easier I can agree with.
> The trouble is, some engineers take it a step further and say "yes,
> current *really* does flow from plus to minus." I then ask them to
> explain how a vacuum tube works, especially why it needs a hot cathode
> to "accept" electrons. Blank stares.
>
> Ah, well.

>
> --
> Bill W6WRT
>
>

2982. New program TRAP3.exe

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-09 00:36:22 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <ck7bq6$715$1@hercules.btinternet.com>
Source record: 22766

NOW AVAILABLE ** New Program "TRAP3.exe"

This program calculates the performance of an antenna trap. It also assists with selection of trap capacitor value, coil length and diameter, and number of turns. For full design of a trapped dipole use in conjunction with program TRAPDIP.

An independent signal generator is built into the program. It generates a testing frequency which allows the traps's performance, input impedance versus frequency, to be 'measured'.

One small file, size = 43 kilobytes.

Have you ever wondered what your traps are really doing? Download program from website below in a few seconds and run immediately.

....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
....

2983. Re: 18nH Inductor--Thanks!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-09 00:39:42 UTC
From: Joe <nuisancewildlife@nospamearthlink.net>
Message-ID: <irG9d.10827$Vm1.733@newsread3.news.atl.earthlink.net>
Source record: 22767
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

"Tam/WB2TT" <t-tammaru@c0mca$t.net> wrote in message
news:l7GdnQVOu8_FQPvcRVn-hg@comcast.com...
>
> "Joe" <nuisancewildlife@nospamearthlink.net> wrote in message
> news:9FY8d.6482$Vm1.5039@newsread3.news.atl.earthlink.net...
> > Thanks all for the suggestions, I have a dremel, and this might be a
good
> > project for me to learn how to use smt stuff. I will need to get a small
> > lighted magnifier tho, cause my eyes ain't what they used to be, even
with
> > my reading glasses.
> >
> > Joe
> >
> Joe,
> If you are like me, you will want to use 805 or larger SM. 402 type drive
me
> batty, and if you ever drop one on the floor, it is gone forever.
>
> Tam/WB2TT
>
>

Hi Tam,

Actually, the ones that looked easiest to use were the 1210 case size. I ordered some from mouser yesterday. I hope they're big enough for me to see.

I was wondering about a post I read somewhere else a long time ago. Is there such a thing as a paste (that comes in a tube) that can be applied to the terminals of a surface mount device and then when it is stuck to the board, the paste hardens into something like hardened solder? So it is mounted to the board and soldered with this paste?

Joe
KB1KVI

2984. Re: Newbie J-Pole.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-09 00:44:16 UTC
From: tgiro <tgiro@comcast%.net>
Message-ID: <8dydnUGpFaDLqfrcRVn-ig@comcast.com>
Source record: 22768

Put "Copper Cactus" in a web search engine. You'll find a couple of
easy ones to make out of copper tube you can get at Lowes or Home Depot.

Tony -- KF3BX

Rose and Ian wrote:
> I am planning to build my first J-pole. Originally it was going to be a 2m
> only. I found a good web site,
> gave me all the measurments and seemed simple enough. I then thought why not
> make it a dual band as I have a dual band mobile. Now the measurement have
> all changed and its seem much more complicated, Im not too good at following
> written instructions. Can anyone help, designs, measurements, web site with
> good pictures and instructions etc.
>
> Any help gratefully recieved
>
> Regards
> Ian Smith
> VA3SOF
>
>

2985. Re: 18nH Inductor--Thanks!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-09 01:47:34 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10megpq4nfhsc78@corp.supernews.com>
Source record: 22769
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

Joe wrote:
> . . .
> I was wondering about a post I read somewhere else a long time ago. Is there
> such a thing as a paste (that comes in a tube) that can be applied to the
> terminals of a surface mount device and then when it is stuck to the board,
> the paste hardens into something like hardened solder? So it is mounted to
> the board and soldered with this paste?

One-part conductive epoxy fits that description. It's commonly used to mount SMT parts on hybrid circuits. However, the ones I'm familiar with require curing at an elevated temperature (e.g., 150C for an hour). I believe there are also some UV curing conductive epoxies. Conductive epoxy can be used for mounting parts on a PCB, too, but I don't think it's commonly done because it's considerably more expensive than solder. There might be two-part conductive epoxies that cure at room temperature, but I've never used one and am not sure they exist. The one-part epoxies I've used aren't conductive until they're cured -- the tiny conductive (gold or silver) particles in the paste don't contact each other until the curing process causes the epoxy to shrink and pull them together.

Then there's solder paste, nearly universally used for mounting parts on PCBs. This also fits your description and can by applied by hand with a syringe, then melted by a number of means -- hot air, IR, soldering iron. It's actually a slurry of flux and tiny spheres of solder. It's not really sticky, but sort of gummy, so some other means (like superglue) has to be used if the parts need to be kept in place when the board is inverted or severely disturbed before the paste is melted.

Roy Lewallen, W7EL

2986. Re: Noise Figure Measurements

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-09 02:38:33 UTC
From: bviel <sjouk@home.nl>
Message-ID: <ck7ivd$3ka$1@news3.zwoll1.ov.home.nl>
Source record: 22784

Cheap calibrated noise source, 35dB Bandwith 100kHz - 500Mhz.
http://www.elecraft.com/manual/N-gen%20man%20rev%20C.pdf
Noise performance of Mar's MMIC's should be noted on datasheets.
I have them "somewhere", with a little luck Google finds it too.
You can measure and calibrate your own noise generator.
Terminate receiver with 50 Ohm resistor, measure output and label it
zero dB.
Remove resistor, and switch ON the unknown ENR, Z = 50 Ohm.
The only thing to do is, ATTenuate in steps until you are at first measured
output labeled zero dB.
Add simply the dB's of the ATT units, this should be the ENR dB's.
Please correct me if I am wrong.
Homebrew ATTenuator pads can be build low as 0.1dB accurate enough.

Sources of how to measure NF are radio amateurs who do EME.
Google should come up with data if you search at "low noise" "EME" etc.
PS: Google for VE3DNL Using Noise Generators to measure Noise Figure.
Greetings Bas.

"Steve Kavanagh" <skavanagh72nospam@yahoo.ca> schreef in bericht
news:5249fb3f.0410070519.2a1d4f3a@posting.google.com...
> I've been playing with trying to make rough noise figure measurements
> on the cheap and have a couple of questions:
>
> (1) Are there any issues with the following setup and procedure for
> making relative noise figure measurements (e.g. comparing two
> receivers) ?
>
> ____________ __________ ________
> | | | | | |
> |Uncalibrated| | Step | |Receiver| Audio Out
> | Noise |---->|Attenuator|------>| Under |-------*----o (0 dB)
> | Source | | | | Test | _|_
> |____________| |__________| |________| | |
> | | 2.7k
> |_|
> |
> *----o (-3 dB)
> _|_
> | |
> | | 6.65k
> |_|
> _|_
> ///
> Procedure:

> (a) For receiver 1 connect a high impedance AC voltmeter to the audio
> output marked "0 dB". Record voltage with noise source off.
> (b) Turn noise source on and measure AC voltage at "-3 dB" output.
> Adjust step attenuator to get same voltage as in step (a). Record
> step attenuator setting.
> (c) Repeat steps (a) and (b) for receiver 2.
> (d) The difference in noise figure between the two receivers is the
> same as the difference in attenuator settings recorded in (b) and (c).
> For example if the attenuation for receiver 1 is 10 dB and for
> receiver 2 is 12 dB, then receiver two has a noise figure which is 2
> dB less than that of receiver 1.
>
> Assuming this is OK we move on to question 2:
>
> (2) To avoid the expense of a calibrated noise source, I wonder if the
> repeatability from unit to unit of simple low noise amplifier circuits
> (perhaps a MAR-6 ?) is good enough to allow one to be used as a noise
> figure standard, at least for fairly rough measurements at HF and VHF.
> I am hoping that accuracies of +/- 1 to 2 dB might be achievable.
> Has anyone measured the NF performance of simple MMIC amps at HF & VHF
> ? Or looked into noise figure repeatability ?
>
> 73,
> Steve VE3SMA

2987. Re: OT: attn: gudmundur: Are you still doing SDK-85 stuff?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-09 04:06:32 UTC
From: hexter@blazenet.net
Message-ID: <10meou8srjbu6b8@corp.supernews.com>
Source record: 22785

Wow, I ran across this post by accident, Yes, I am still in the states,
and just wrote some programs for re-formatting NMEA marine nav data
strings. I kept most of the second kilobyte intact, with changes mostly
to the soft uart for 4800 8N1, and extensively modified the first 80
bytes of stack push/pop locations right up at the beginning of the first
kilobyte. Used the remainder of the first K for my datastring parsing.
Have 2K of ram on my little unit (not the original SDK motherboard), and
I can write little parsing mods in ram to test them. (I work with
Raytheon older nav equipment, and radar gear, it is my specialty)
I use the SDK tiny clone to do things like have my Delorme TripMate
drive my 700L Loran chartplotter.

Did you actually do 9600 baud using the soft uart SID/SOD? I thought
my 4800 was really pushing the limit for sustained data bursts of
1 or 2 kilobytes. It was hard to get the timing of the bits just right.
A little bit fast, or slow, and things slip out of sync after a few
hundred bytes.

In article <qle9m0p62jiocb0d65vdqu1uu4m2soaav7@4ax.com>, nospam@nospam.net
says...
>
>gudmundur,
>
>I found your April '03 usenet post about the SDK-85 monitor and was
>unable contact you by email. I have some SDK-85 stuff as well, and
>have recently pulled it out of storage for a self induced ASM
>refresher. Several years ago I 'OCR'ed a printout of the SDK-85
>monitor, with comments, from my school days and managed to get it to
>compile in Pseudo Sam. It may still have a few typos but it runs. I
>also did a simple 9600 bps serial mod which seems to work well. I
>would be intersted in the stack problems and improvements you
>mentioned.
>
>Any interest in sharing info?
>
>Thanks,
>
>bigk

2988. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-09 14:19:46 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <epsfm0lgccv6r3uvpg9opsu8mqoe9pb8re@4ax.com>
Source record: 22770
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur,uk.tech.broadcast

On Fri, 8 Oct 2004 07:55:41 -0500, "WB4JNX" <ndlnews@comcast.net>
wrote:

>"Gordon Hudson" <gordon@usenet2.hostroute.co.uk> wrote in message
>news:41655d88$0$94921$5a6aecb4@news.aaisp.net.uk...
>> Go to an amateur radio rally and you will see what I meant.
>> Grubby parkas and amaruer rado seem to go together like....
>
>Don't forget those weird fabric blue jeans that are susposed to be blue
>jeans but they look like polyester painted to look like blue jeans.
>Usually worn with the greasy parkas.

Hams at UK rallies typically tend to smell rather badly, too. And look
like child molesters. Is this a world-wide phenomenon or a purely
British one?

--

"What is now proved was once only imagin'd." - William Blake, 1793.

2989. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-09 15:42:15 UTC
From: "Jock." <real_class_a@yahoo.co.uk>
Message-ID: <4l1gm09pebulm1ncn516qr89affq4qdhvr@4ax.com>
Source record: 22771
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur,uk.tech.broadcast

On Sat, 09 Oct 2004 15:19:46 +0100, Paul Burridge <pb@notthisbit.osiris1.co.uk>
wrote:

>Hams at UK rallies typically tend to smell rather badly, too. And look
>like child molesters. Is this a world-wide phenomenon or a purely
>British one?

Must be purely British as no other country seems to have the
paranoia we seem to have about child molesters.

--

Jock.

Even the most scornful of Welshmen can feel a modicum
of sympathy for the English, who must now employ a
cast-off Scandinavian to manage their limp excuse for
a football team.
- John Humphreys, Broadcaster.

2990. Re: power output formula

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-09 17:37:01 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <$M5D+TT9GCaBFA43@ifwtech.co.uk>
Source record: 22786

Bill Turner wrote:
>On Fri, 08 Oct 2004 16:01:04 -0700, Roy Lewallen <w7el@eznec.com> wrote:
>
>>It's a common mistake to equate "current" or "charge" with "electrons",
>
>>_____
>
>What other kind of current is there besides the flow of electrons? Even
>the flow of "holes" in a semiconductor is propagated by the absence of
>electrons.
>
>And isn't charge merely the presence or absence of electrons? I'm not
>talking mathematical concepts, just the actual physical happening?

One last try...

When you look at the history, "current" and "flow of electrons" truly
are two different things. They come from two different centuries of
science and engineering.

"Current" came first. As people invented electrical devices such as
batteries, electromagnets, motors and generators, the concept
developed that "electric current" must in fact be a flow of charged
particles.

However, you can't experiment on a battery without labeling the
terminals, so the convention that "current flows from positive to
negative" had to be established very early (by Faraday, I believe).

The new technology of electrical engineering forged ahead for several
decades without ever needing to know what those fundamental charged
particles were. Faraday himself never knew. When the electron was
finally identified, it was found to have a negative charge - which meant
that what people had been calling "current" is actually a flow of
electrons in the opposite direction.

But by then there was absolutely no question of changing the conventions
of what "current", "positive" and "negative" mean. Those conventions
remain unchanged to this day.

That was how we were taught it in school, at age 12:

"Here's all the history" (as above, only with dates... which I've
forgotten).

"Hard luck that the electron turned out to have a negative charge. It
makes life a bit more complicated."

"'Current' is not the same as 'flow of electrons', because they're going in the opposite directions. Be careful to say the one you actually mean."

"Don't worry, you'll learn to cope with it" - and so we did.

It's only hard if you insist on *making* it hard.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

2991. Re: power output formula

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-09 18:32:30 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10mgbm33q2pdt24@corp.supernews.com>
Source record: 22787

It's a universal tendency for people to simplify things in order to understand them. That's fine, as long as they realize that their understanding is based on a simplification, and they don't try to apply it to areas where the simplification is no longer valid. While the idea of charge flow as electron flow works just fine in a vacuum tube, it isn't at all true in general.

Current is the rate of flow of charge, which as I'll explain isn't the same as the flow of electrons. Charge can be positive or negative. A shortage of electrons in an atom's valence shell results in a positively charged atom (a positive ion), and an excess of electrons in a negatively charged one (a negative ion). In a conductor, electrons are quite free to move about. In a semiconductor, they're not, and the crystal lattice can contain either an excess of electrons (N type material), a deficiency of them (P type material), or a normal number (intrinsic material). In a vacuum tube, the flow of (negative) charge is simply the physical flow of electrons, and the flow of positive charge becomes a mathematical concept, moving the opposite direction. But this isn't necessarily so in other media. In a wire, for example, charge flows much faster (near the speed of light) than electrons (which flow at a rate on the order of a few miles per hour). If you jam a bunch of electrons into one end of a wire, an equal number very quickly pops out the other -- but these aren't the same ones that went into the other end -- those will slowly drift along the wire at a few miles per hour. The rate of charge flow is dictated by how long it took electrons to pop out of the other end of the wire after jamming some in the input end, not how long it takes the added electrons to drift their way along. So in a wire, for example, charge isn't the same as movement of electrons. If you try to envision physical current (charge flow) in a wire as being the same as physical current in a vacuum tube, you'll be misleading yourself.

Now imagine sucking a bunch of electrons out of one end of the wire. There'll be an electron-poor region at the wire end. A "wave" of electron-poor region will propagate to the other end of the wire at nearly the speed of light, and a bunch of electrons will be sucked into the other end of the wire. The propagation of this wave of an electron-poor region is the physical flow of positive charge. Envision, if you must, sucking water through a drinking straw that's already filled with water. Bear in mind, though, that this isn't an exact model of what's happening, so be careful in using it.

It's important to be able to separate the concepts of moving charges and moving electrons, if you're going to have the versatility of understanding things other than vacuum tubes, like positive ion

generators, lightning, charge flow in a semiconductor, or even a wire. Once you do, it becomes just as easy to envision positive charge flow as negative charge flow. If you can't do this without imagining physical marble-like particles carrying the charge, you have no hope of understanding an electromagnetic field, or other more abstract and mathematical concepts.

Roy Lewallen, W7EL

-- A quick web search brought this brief explanation of how electrons behave in a conductor: http://hyperphysics.phy-astr.gsu.edu/hbase/electric/ohmmic.html. I'm sure it would be easy to find a lot more good information (as well as some pretty bad stuff) if anyone is interested enough to look.

Bill Turner wrote:

> On Fri, 08 Oct 2004 16:01:04 -0700, Roy Lewallen <w7el@eznec.com> wrote:
>
>
>>It's a common mistake to equate "current" or "charge" with "electrons",
>
>
> _____
>
> What other kind of current is there besides the flow of electrons? Even
> the flow of "holes" in a semiconductor is propagated by the absence of
> electrons.
>
> And isn't charge merely the presence or absence of electrons? I'm not
> talking mathematical concepts, just the actual physical happening?
>
> --
> Bill W6WRT
>

2992. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-09 19:06:54 UTC
From: Ivor Jones <this.address@notvalid.inv>
Message-ID: <ck9csg$v83$1@newsg3.svr.pol.co.uk>
Source record: 22772
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur,uk.tech.broadcast

"Paul Burridge" <pb@notthisbit.osiris1.co.uk> wrote in message
news:epsfm0lgccv6r3uvpg9opsu8mqoe9pb8re@4ax.com...
> On Fri, 8 Oct 2004 07:55:41 -0500, "WB4JNX" <ndlnews@comcast.net>
> wrote:
>
>>"Gordon Hudson" <gordon@usenet2.hostroute.co.uk> wrote in message
>>news:41655d88$0$94921$5a6aecb4@news.aaisp.net.uk...
>>> Go to an amateur radio rally and you will see what I meant.
>>> Grubby parkas and amaruer rado seem to go together like....
>>
>>Don't forget those weird fabric blue jeans that are susposed to be blue
>>jeans but they look like polyester painted to look like blue jeans.
>>Usually worn with the greasy parkas.
>
> Hams at UK rallies typically tend to smell rather badly, too. And look
> like child molesters. Is this a world-wide phenomenon or a purely
> British one?

As a UK amateur who attends rallies (not "ham" please, it makes me sound like something off the butcher's slab..!) I take offence at that. I don't look like a child molester, at least nobody has ever told me I do. Nor do I smell.

Please retract your statement forthwith.

Ivor

2993. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-09 19:58:18 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <0dggm0lsf7io0fo51fhm86jtlgsa26tjq3@4ax.com>
Source record: 22773
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur,uk.tech.broadcast

```
On Sat, 9 Oct 2004 19:06:54 -0000, "Ivor Jones"
<this.address@notvalid.inv> wrote:

>
>"Paul Burridge" <pb@notthisbit.osiris1.co.uk> wrote in message
>news:epsfm0lgccv6r3uvpg9opsu8mqoe9pb8re@4ax.com...
>> On Fri, 8 Oct 2004 07:55:41 -0500, "WB4JNX" <ndlnews@comcast.net>
>> wrote:
>>
>>>"Gordon Hudson" <gordon@usenet2.hostroute.co.uk> wrote in message
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>>>Don't forget those weird fabric blue jeans that are susposed to be blue
>>>jeans but they look like polyester painted to look like blue jeans.
>>>Usually worn with the greasy parkas.
>>
>> Hams at UK rallies typically tend to smell rather badly, too. And look
>> like child molesters. Is this a world-wide phenomenon or a purely
>> British one?
>
>As a UK amateur who attends rallies (not "ham" please, it makes me sound
>like something off the butcher's slab..!) I take offence at that. I don't
>look like a child molester, at least nobody has ever told me I do. Nor do
>I smell.
>
>Please retract your statement forthwith.

I certainly will not! I'm also a UK amateur/ham who attends rallies so
the slur is equally applicable to me as well. The remark is a
generalisation, of course and doesn't apply to every single ham in the
country. Just a significant proportion. But I dare say the same could
be said for train-spotters, real-ale enthusiasts and stamp collectors.
--

"What is now proved was once only imagin'd." - William Blake, 1793.
```

2994. Re: 18nH Inductor--Thanks!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-09 20:50:51 UTC
From: Joe <nuisancewildlife@nospamearthlink.net>
Message-ID: <LaY9d.13496$gs1.5769@newsread2.news.atl.earthlink.net>
Source record: 22774
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:10megpq4nfhsc78@corp.supernews.com...
> Joe wrote:
> > . . .
> > I was wondering about a post I read somewhere else a long time ago. Is
there
> > such a thing as a paste (that comes in a tube) that can be applied to
the
> > terminals of a surface mount device and then when it is stuck to the
board,
> > the paste hardens into something like hardened solder? So it is mounted
to
> > the board and soldered with this paste?
>
> One-part conductive epoxy fits that description. It's commonly used to
> mount SMT parts on hybrid circuits. However, the ones I'm familiar with
> require curing at an elevated temperature (e.g., 150C for an hour). I
> believe there are also some UV curing conductive epoxies. Conductive
> epoxy can be used for mounting parts on a PCB, too, but I don't think
> it's commonly done because it's considerably more expensive than solder.
> There might be two-part conductive epoxies that cure at room
> temperature, but I've never used one and am not sure they exist. The
> one-part epoxies I've used aren't conductive until they're cured -- the
> tiny conductive (gold or silver) particles in the paste don't contact
> each other until the curing process causes the epoxy to shrink and pull
> them together.
>
> Then there's solder paste, nearly universally used for mounting parts on
> PCBs. This also fits your description and can by applied by hand with a
> syringe, then melted by a number of means -- hot air, IR, soldering
> iron. It's actually a slurry of flux and tiny spheres of solder. It's
> not really sticky, but sort of gummy, so some other means (like
> superglue) has to be used if the parts need to be kept in place when the
> board is inverted or severely disturbed before the paste is melted.
>
> Roy Lewallen, W7EL

Thanks Roy,

It sounds like the solder paste is what I heard about. Sounds easier than
trying to solder such small parts with an iron. I will see if mouser carries
it and give it a try.

Joe
KB1KVI

2995. Re: power output formula

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-09 21:11:44 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <ck9k6gqmm1@sparta.btinternet.com>
Source record: 22788

> It's a universal tendency for people to simplify things in order to
> understand them.

==========

The universal tendency on this newsgroup is to overcomplicate things to further confuse matters. (If that's possible).

There's nothing better than a very few carefully chosen words of plain, simple, factual English language.

Responders should very carefully edit and summarise what they have to say before hitting the 'send' key.

I hasten to say, Roy, you certainly do not fall into the 'careless' category.

I am at present on Californian red Zinfandel. Where it got its name from I can't imagine. But on the side of the bottle it says it should be consumed within 1 year of purchase. There is still 364 days to go.

Reg, G4FGQ

2996. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-09 22:49:42 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <ck9pu6$47o$1@titan.btinternet.com>
Source record: 22775
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur,uk.tech.broadcast

```
> >Hams at UK rallies typically tend to smell rather badly, too. And look
> >like child molesters. Is this a world-wide phenomenon or a purely
> >British one?
>
> Must be purely British as no other country seems to have the
> paranoia we seem to have about child molesters.
>
==================================

All physical contact and association between people of all ages is
fundamentally sexual in nature. It's for the propagation of our species.
Otherwise there is no genetical reason for contact. It's all built into our
genes.
```

2997. Re: power output formula

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-10 01:58:27 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10mh5q7k2vqle2a@corp.supernews.com>
Source record: 22789

Correction:

The speed of electron flow in a conductor is more like a few feet per hour rather than a few miles per hour as I said, at reasonable current levels and wire sizes (but depending on the current and the wire diameter). The numerical example for copper shown at the web site I mentioned shows an electron drift velocity of 4.3 mm/s for a 1 mm diameter wire with 46 A current (which would probably explode the wire). This works out to about 51 feet/hour. At the more reasonable current of 3 A, the electron drift velocity drops to 0.28 mm/s, or about 3.3 feet/hour.

The electron drift velocity is so slow because, even though an ampere of current is a seemingly staggering 6 X 10^18 electron charges per second, there are vastly more free electrons than this in even a small wire. (Again see the web site example, where the density is shown to be about 8.5 X 10^28 electrons/m^3, or about 6.7 X 10^22 electrons in the 1 mm diameter, 1 meter long wire in the example.)(*) Carefully using the drinking straw analogy again, imagine a very large diameter drinking straw (lots of free water "electrons"), where an ampere of current is represented by a tiny trickle of water. If you suck water out one end at the rate of "one ampere", it takes a long time for the actual water molecules at the other end of the straw to work their way up the straw.

(*) You can, in fact, calculate the drift velocity somewhat more simply and perhaps more intuituvely than the author of that page did, knowing only the electron density and the size of the wire. From the wire size you can calculate its volume as 7.85 X 10^-7 m^3. Multiplying this by the electron density, you get the total number of free electrons it contains, about 6.7 X 10^22. So the wire holds 6.7 X 10^22 / 6 X 10^18 ~ 11,000 coulombs (ampere-seconds) of available charge. If we move charge through at the rate of 46 amperes as in the first example, it would take 11,000/46 ~ 240 seconds for an electron to move from one end of the wire to the other, a rate of one meter/240 seconds or about 4.2 mm/sec. Within roundoff error, this is what the author calculated.

Roy Lewallen, W7EL

Roy Lewallen wrote:

> . . .
> In a wire, for example, charge
> flows much faster (near the speed of light) than electrons (which flow
> at a rate on the order of a few miles per hour). . .
> . . .
>
> -- A quick web search brought this brief explanation of how electrons

> behave in a conductor:
> http://hyperphysics.phy-astr.gsu.edu/hbase/electric/ohmmic.html. . .

2998. Re: power output formula

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-10 08:04:30 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <y1lQwsEO0OaBFA6M@ifwtech.co.uk>
Source record: 22790

Bill Turner wrote:
>On Sat, 9 Oct 2004 18:37:01 +0100, "Ian White, G3SEK"
><G3SEK@ifwtech.co.uk> wrote:
>
>>"Don't worry, you'll learn to cope with it" - and so we did.
>
>_____
>
>I am mildly curious how long this error will be propagated. Surely it
>will still be around after I'm gone, but will engineers five hundred or
>a thousand years still be defying logic?
>

Faraday established the convention that "current" flows from "positive" to "negative" in 1834.

Thomson discovered the electron in 1897, and found it had a negative charge.

But even then, it was already far too late to think about changing the convention about "current". Scientists who had to work with electrons would have to learn to live with it.

And if it was already too late in 1897...

>Not a big deal, but it is fascinating to me how nobody will take the
>bull by the horns and fix it.
>
There really ain't much that's needful of fixin'. Electrical engineering was growing and thriving before electrons were discovered, and a century later, everything still works. Even "electronics" hardly ever has to think about electrons, or the sign of their charge. We're doing just fine, thank you.

It's an untidy world, Bill. Please get over it... soon :-)

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

2999. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-10 08:40:10 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2ssb1jF1ngvmbU1@uni-berlin.de>
Source record: 22776
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur,uk.tech.broadcast

And here in Britland, those who originated or who now
support the gangrenous degeneration that is the M3/CB
Fools License scheme have f*cked Ham Radio good and proper!

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:ck9pu6$47o$1@titan.btinternet.com...
> All physical contact and association between people of all ages is
> fundamentally sexual in nature. It's for the propagation of our species.
> Otherwise there is no genetical reason for contact. It's all built into
our
> genes.

3000. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-10 09:32:50 UTC
From: Frank Turner-Smith G3VKI <g3vki@turner-smith.co.uk>
Message-ID: <2ssdtpF1nue81U2@uni-berlin.de>
Source record: 22777
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur,uk.tech.broadcast

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:ck9pu6$47o$1@titan.btinternet.com...
>> >Hams at UK rallies typically tend to smell rather badly, too. And look
>> >like child molesters. Is this a world-wide phenomenon or a purely
>> >British one?
>>
>> Must be purely British as no other country seems to have the
>> paranoia we seem to have about child molesters.
>>
> ==========
>
> All physical contact and association between people of all ages is
> fundamentally sexual in nature. It's for the propagation of our species.
> Otherwise there is no genetical reason for contact. It's all built into
> our
> genes.
>
>
So if you meet somebody for the first time and shake hands it really means
you want to shag him / her? I find that difficult to believe.
--
;>)
73 de Frank Turner-Smith G3VKI - mine's a pint.
http://turner-smith.co.uk

3001. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-10 09:37:36 UTC
From: Frank Turner-Smith G3VKI <g3vki@turner-smith.co.uk>
Message-ID: <2sse6nF1nue81U3@uni-berlin.de>
Source record: 22778
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur,uk.tech.broadcast

"Airy R. Bean, village idiot" <me@privacy.net> escaped from his padded cell
and wrote in message news:2ssb1jF1ngvmbU1@uni-berlin.de...
> And here in Britland, those who originated or who now
> support the gangrenous degeneration that is the M3/CB
> Fools License scheme have f*cked Ham Radio good and proper!
>
YAWN! I knew your exodus was too good to last.
...(_!_)...

3002. GPIB-ENET control software

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-10 10:00:30 UTC
From: Harke Smits <yrrah53@yahoo.com>
Message-ID: <41690871$0$159$3a628fcd@reader2.nntp.hccnet.nl>
Source record: 22791

Hi all,

Recently I acquired a GPIB-ENET controller. It appears to work. With this interface I want to control RF equipment. I can buy NI official software, but first I want to know if there's any shareware available, possible in the scientific world.
Please advise.
Regards,
Harke, PA0HRK

3003. Re: What's this inductor doin'?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-10 11:00:48 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <sh5im0t2fs8tngtu26lf3eb54r6a28bmrb@4ax.com>
Source record: 22796
Cross-posted to: sci.electronics.basics,rec.radio.amateur.homebrew

On Sat, 09 Oct 2004 22:40:20 GMT, Steve Evans
<smevans@jif-lemon.co.mars> wrote:

>On Sun, 03 Oct 2004 23:25:05 GMT, Doug Smith W9WI
><w9wi@invalid.invalid> wrote:
>
>>A capacitor has a very low impedance to high-frequency (i.e., 145MHz)
>>signals and a very high impedance to low-frequency (i.e., DC) signals.
>>
>>An inductor is the other way around - very low impedance to low
>>frequency (DC) signals and very high impedance to high frequency (2m).
>
>Sure, I'm aware of all this basic crap, but every reply I've had to
>this question has thrown up a different answer and none of them make
>much sense. Can't you guys come up with something in common that adds
>up?

Perhaps if you posted the proper schematic it would help. What's the
transistor in question?
--

"What is now proved was once only imagin'd." - William Blake, 1793.

3004. Re: GPIB-ENET control software

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-10 11:03:11 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2ssjhmF1o5o0qU2@uni-berlin.de>
Source record: 22792

If you're installing in a PC using Windows, then it is usual for the
low-level drivers to be provided by the card manufacturer.

"Harke Smits" <yrrah53@yahoo.com> wrote in message
news:41690871$0$159$3a628fcd@reader2.nntp.hccnet.nl...
> Recently I acquired a GPIB-ENET controller. It appears to work. With this
> interface I want to control RF equipment. I can buy NI official software,
> but first I want to know if there's any shareware available, possible in
the
> scientific world.

3005. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-10 11:12:02 UTC
From: Nimrod <nospamfor@me.com>
Message-ID: <2sskkoF1o9belU1@uni-berlin.de>
Source record: 22779
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur,uk.tech.broadcast

"Airy R. Bean" <me@privacy.net> wrote in message
news:2ssb1jF1ngvmbU1@uni-berlin.de...

aka: G4SDW , GA EVANS, 13 HARDENS CLOSE, CHIPPENHAM
WILTS, SN15 3AA UK

> And here in Britland, those who originated or who now
> support the gangrenous degeneration that is the M3/CB
> Fools License scheme have f*cked Ham Radio good and proper!
>

Still feeling a bit rejected Gareth?

3006. Re: Need help with VHF transmitter kit

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-10 11:12:45 UTC
From: "Watson A.Name - \"Watt Sun, the Dark Remover\"" <NOSPAM@dslextreme.com>
Message-ID: <10mi6qak441i47f@corp.supernews.com>
Source record: 22793
Cross-posted to:
rec.radio.amateur.homebrew,sci.electronics.design,sci.electronics.basics,sci.electronics.misc,alt.radio.broadcasting

"mndflmr" <mndflmr@hotmail.com> wrote in message
news:n9j6m09u104h3rbod7ermst3jc421ltqon@4ax.com...
> Hello all,
> Recently I purchased a low-power VHF transmitter kit from Ramsey.
> After building this kit, I have discovered that it will not work for
> my purpose. I am trying to transmit audio and video about 20 feet from
> a satellite receiver to my bedroom. The power output from the
> transmitter is so low that the picture quality is very poor. I am a
> novice and I am hoping the experts that use these newsgroups can help
> me. I will post a link to the Ramsey kit manual. Will some of you
> guys please take a look at this manual, and suggest some simple
> (hopefully) methods to increase the power of this transmitter? There
> is no chance of interference with the neighbors, as my nearest
> neighbor is far away. Any help would be greatly appreciated. If you
> want to email the response, please send it to mndflmr@hotmail.com
>
> Here is the link to the kit manual:
> http://www.ramseyelectronics.com/downloads/manuals/TV6.pdf

Ramsey purposefully left out the schematic page in this URL. Thanks for
nothing!

I would try better antennas before hacking the TV6.

BTW, you are shamefully crossposting to too many newsgroups!
Novice = flamebait!

> Thanks for any help
> Joe

3007. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-10 11:42:08 UTC
From: "Jock." <real_class_a@yahoo.co.uk>
Message-ID: <2v7im0hmeid0uf7qgcb3gkttq9rfuk9tme@4ax.com>
Source record: 22781
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur,uk.tech.broadcast

On Sat, 9 Oct 2004 22:49:42 +0000 (UTC), "Reg Edwards" <g4fgq.regp@ZZZbtinternet.com>
wrote:

>> >Hams at UK rallies typically tend to smell rather badly, too. And look
>> >like child molesters. Is this a world-wide phenomenon or a purely
>> >British one?
>>
>> Must be purely British as no other country seems to have the
>> paranoia we seem to have about child molesters.
>>
>==========
>
>All physical contact and association between people of all ages is
>fundamentally sexual in nature. It's for the propagation of our species.
>Otherwise there is no genetical reason for contact. It's all built into our
>genes.

Speak for yourself, Reg!

--

Jock.

To be a Frenchman abroad is to be miserable;
to be an American abroad is to make others miserable.

3008. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-10 11:42:26 UTC
From: "Daniel Kelly (AKA Jack)" <d.kellyNOSPAM@NOSPAM.ucl.ac.uk>
Message-ID: <ckb710$jb4$1@uns-a.ucl.ac.uk>
Source record: 22780
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur,uk.tech.broadcast

Yes, that's what you'll be telling you lawer when you've been done for
kiddie porn. (joke)

But, seriously, that sort of evolutionary psychology is fatally flawed. The
most glaring problem with it is that we're social animals - what makes us
humans different from all other animals is our ability to share thoughts.
What makes humans such a powerful (or lethal, depending on your perspective)
species is that we no longer have to wait millenia to evolve new faculties -
we can evolve *culturally*, which is orders of magnitude faster than
biological evolution.

So, what I'm getting at is that there are loads of reasons for associating
with other people other than to get your end away. What we're doing right
now is an example - we all feel compelled to share our thoughts on these
news groups without any desire to have sex.

Jack.

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:ck9pu6$47o$1@titan.btinternet.com...
> > >Hams at UK rallies typically tend to smell rather badly, too. And look
> > >like child molesters. Is this a world-wide phenomenon or a purely
> > >British one?
> >
> > Must be purely British as no other country seems to have the
> > paranoia we seem to have about child molesters.
> >
> ==========
>
> All physical contact and association between people of all ages is
> fundamentally sexual in nature. It's for the propagation of our species.
> Otherwise there is no genetical reason for contact. It's all built into
our
> genes.
>
>

3009. Re: What's this inductor doin'?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-10 11:57:58 UTC
From: Steve Evans <smevans@jif-lemon.co.mars>
Message-ID: <mv8im0dn6m43ic9q4fkt4uf56p91us7sda@4ax.com>
Source record: 22797
Cross-posted to: sci.electronics.basics,rec.radio.amateur.homebrew

On 10 Oct 2004 00:26:35 GMT, et472@FreeNet.Carleton.CA (Michael Black)
wrote:

>Then rephrase the question.
>
>Are you wondering why the base of the transistor is at DC ground, or
>wondering what the RF choke does to ensure that the base of the transistor is
>not at ground for RF?
>
>People have answered what they think you are asking, which isn't really clear.
>Clarify that, and you might get an answer you want.

Thanks Michael,
I'm sorry I can't post the full diagram as my scanner's bust. I'll try
to clarify. I know why the base of the transistor (it's a 2n5771, in
answer to Paul's question) is at DC ground. I'm not so dumb as to
realise that a choke passes dc but not the high frequncy RF. I guess
it boils down to this: how did the designer arrive at the given value
of 0.4uH for this inductor? Why not 4nH? Why not 40uH? Why not 100mH??
What's the deal with this value and since I've only got a 1uH in my
junk box, will that be okay instead?

Thanks, all,

Steve.
--

Fat, sugar, salt, beer: the four essentials for a healthy diet.

3010. Re: What's this inductor doin'?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-10 12:08:23 UTC
From: Spajky <Spajky##@volja.net>
Message-ID: <p48im01q8umdd29qcqs0o1u34r54u4u8nd@4ax.com>
Source record: 22794

On Sat, 09 Oct 2004 22:40:20 GMT, Steve Evans
<smevans@jif-lemon.co.mars> wrote:

>On Sun, 03 Oct 2004 23:25:05 GMT, Doug Smith W9WI
><w9wi@invalid.invalid> wrote:
>
>>A capacitor has a very low impedance to high-frequency (i.e., 145MHz)
>>signals and a very high impedance to low-frequency (i.e., DC) signals.
>>
>>An inductor is the other way around - very low impedance to low
>>frequency (DC) signals and very high impedance to high frequency (2m).
>
>Sure, I'm aware of all this basic crap, but every reply I've had to
>this question has thrown up a different answer and none of them make
>much sense. Can't you guys come up with something in common that adds
>up?

it looks /IIRC schematics posted/ that that is a some kind of RF power
amp in "C" class ....

that inductor keeps shorted transistor base for DC to ground &
capacitor keeps away DC from previous stage.

Also that CR circuit is an impedance transformer (from previous higher
to transistor lower RF Z input & also a high pass filter @ the same
time.

If enough RF current would pass capacitor to rise the potential over
few hundred mV RF, every half-period of the signal will open
transistors E - C gate to conduct thru (parallell) LC tank that
should be connected there from C transistor terminal to power line.

LC tank will recover after one period also other (opposite)
semiperiod, so you will have a complete sinusoide (RF) to transmit (or
amplify it further).. usefull only for CW, modul.CW or FM (not AM or
SSB).

Hope I helped & understood the schematics & question.
--
Regards, SPAJKY ®
& visit my site @ http://www.spajky.vze.com
"Tualatin OC-ed / BX-Slot1 / inaudible setup!"
E-mail AntiSpam: remove ##

3011. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-10 12:22:04 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <93aim0tnv92ulaorhqb0fovssu598anvka@4ax.com>
Source record: 22782
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur,uk.tech.broadcast

On Sun, 10 Oct 2004 10:32:50 +0100, "Frank Turner-Smith G3VKI"
<g3vki@turner-smith.co.uk> wrote:

>So if you meet somebody for the first time and shake hands it really means
>you want to shag him / her? I find that difficult to believe.

Reg is right, but it's an oversimplification. The contact can be
indirect for the purposes of self-propagation. You might not want to
shag the person you're shaking hands with, but you presumably want to
make a good impression on them. Maybe it's a job interview; maybe
you're making a new friend; whatever. The motivation (usually
subconscious) behind the gesture is to better your chances of
replicating yourself; increasing status/wealth-generation/social
standing, whatever, are means to a successful biological end.

--

"What is now proved was once only imagin'd." - William Blake, 1793.

3012. Re: What's this inductor doin'?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-10 12:41:23 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10mibfob03f5406@corp.supernews.com>
Source record: 22698
Cross-posted to: sci.electronics.basics,rec.radio.amateur.homebrew

>Steve Evans wrote:
>. . .
> I'm not so dumb as to
> realise that a choke passes dc but not the high frequncy RF. I guess
> it boils down to this: how did the designer arrive at the given value
> of 0.4uH for this inductor? Why not 4nH? Why not 40uH? Why not 100mH??
> What's the deal with this value and since I've only got a 1uH in my
> junk box, will that be okay instead?

I'm guessing you're not experienced enough to realize that inductors are far from ideal. Among their many imperfections, the most problematic in an application like this is shunt capacitance. This resonates with the inductance to create a parallel resonant circuit. At resonance, the impedance is very high -- higher than that of the inductance alone. But above the self-resonant frequency, the impedance drops, and at some point becomes less, then very much less, than the impedance of just the inductance. Well above self-resonance, all you see is the self capacitance -- it looks like a capacitor, not an inductor.

That's why a designer doesn't just use 100 mH for everything. Just about any 100 mH inductor looks like a capacitor at 145 MHz, with a very low impedance, much lower than an inductor with smaller inductance value.(*) The trick is to choose an inductor that's below or at its self resonant point while still having enough impedance so it doesn't disturb the circuit it's across. A good rule of thumb is an inductor whose reactance is about 5 - 10 times the impedance it's across. (In your case, this might not be easy to determine. You might be able to get it either from knowing someting about the previous stage, or from the S parameter specfication of the transistor.) 5 - 10 times is usually enough, and if you try for too much, it won't work any better and you run the risk of being above the self-resonant frequency. Of course, an individual inductor can be measured to make sure its impedance is high enough at the frequency of use, if you have the equipment to make the measurement.

So, now, is your 1 uH ok? It depends on its shunt C, which depends on its construction. If you can't measure it, just try it. The worst that's likely to happen is that it'll kill the signal (due to low impedance). At only 2-1/2 times the value of the original, there's a good chance it'll work ok. If it doesn't, and if your 1 uH inductor isn't potted, you can get the value down to 0.4 uH by unwinding about 1/3 of the turns.

(*) Even this explanation is highly simplified. At higher frequencies, the inductor will exhibit additional series and parallel resonances due to various parasitic capacitances and inductances and transmission line

effects.

Roy Lewallen, W7EL

3013. Re: What's this inductor doin'?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-10 13:01:44 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <bacim0phupa2k60nuvn5q16ubdhq2um3ic@4ax.com>
Source record: 22699
Cross-posted to: sci.electronics.basics,rec.radio.amateur.homebrew

On Sun, 10 Oct 2004 11:57:58 GMT, Steve Evans
<smevans@jif-lemon.co.mars> wrote:

>Thanks Michael,
>I'm sorry I can't post the full diagram as my scanner's bust. I'll try
>to clarify. I know why the base of the transistor (it's a 2n5771, in
>answer to Paul's question) is at DC ground. I'm not so dumb as to
>realise that a choke passes dc but not the high frequncy RF. I guess
>it boils down to this: how did the designer arrive at the given value
>of 0.4uH for this inductor? Why not 4nH? Why not 40uH? Why not 100mH??
>What's the deal with this value and since I've only got a 1uH in my
>junk box, will that be okay instead?

Well then it appears Reg's hunch was right. The transistor in question
has an input capacitance of just under 3pF, so the 0.4uH inductor
forms a parallel tuned circuit with it at 145Mhz. This prevents the
input signal from partially shunted to ground via the input
capacitance were the inductor not there. The idea is to allow as much
of the input signal as possible to develop across the BE diode to
maximise input impedance and gain. The input capacitance is in
parallel with this diode and bypasses RF signals around it - which you
don't want. Will a 1uH work instead? Do the maths and find out. But
if you don't know the inductor's Q that probably won't help much...
--

"What is now proved was once only imagin'd." - William Blake, 1793.

3014. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-10 16:41:47 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <eDdad.4636$kz3.790@fed1read02>
Source record: 22783
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur,uk.tech.broadcast

"Jock." <real_class_a@yahoo.co.uk> wrote in message
news:2v7im0hmeid0uf7qgcb3gkttq9rfuk9tme@4ax.com...
> On Sat, 9 Oct 2004 22:49:42 +0000 (UTC), "Reg Edwards"
> <g4fgq.regp@ZZZbtinternet.com>
> wrote:
>
>>> >Hams at UK rallies typically tend to smell rather badly, too. And look
>>> >like child molesters. Is this a world-wide phenomenon or a purely
>>> >British one?
>>>
>>> Must be purely British as no other country seems to have the
>>> paranoia we seem to have about child molesters.
>>>
>>>==================================
>>
>>All physical contact and association between people of all ages is
>>fundamentally sexual in nature. It's for the propagation of our species.
>>Otherwise there is no genetical reason for contact. It's all built into
>>our
>>genes.
>
> Speak for yourself, Reg!
>
> --
>
> Jock.
>
> To be a Frenchman abroad is to be miserable;
> to be an American abroad is to make others miserable.

Then it logically follows that we should kill 'em all to end their misery.

Ed
wb6wsn

3015. 4CX1600U

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-10 17:30:00 UTC
From: RADIOSERVICE 39 <radioservice39@poczta.onet.pl>
Message-ID: <ckbrithme1@news.onet.pl>
Source record: 22795

Hi,
let me know, if somebody is interested in electronic valves 4CX1600U,
i have some...
best rgds,
Chris
mail address:
plcb2\at\poczta.onet.pl

3016. Re: What's this inductor doin'?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-10 18:12:19 UTC
From: Jim Pennell <kill-spam@no-spam.org>
Message-ID: <7Yead.1307$Bw1.672@newsread3.news.pas.earthlink.net>
Source record: 22720
Cross-posted to: sci.electronics.basics,rec.radio.amateur.homebrew

On Sat, 09 Oct 2004 22:40:20 GMT, Steve Evans
<smevans@jif-lemon.co.mars> wrote:

>On Sun, 03 Oct 2004 23:25:05 GMT, Doug Smith W9WI
><w9wi@invalid.invalid> wrote:
>
>>A capacitor has a very low impedance to high-frequency (i.e., 145MHz)
>>signals and a very high impedance to low-frequency (i.e., DC) signals.
>>
>>An inductor is the other way around - very low impedance to low
>>frequency (DC) signals and very high impedance to high frequency (2m).
>
>Sure, I'm aware of all this basic crap, but every reply I've had to
>this question has thrown up a different answer and none of them make
>much sense. Can't you guys come up with something in common that adds
>up?

The problem is, there are quite a few possibilities for what the inductor
is doing. For example, it might be providing a DC path to ground for the
base of the transistor, or it might be supressing a parasitic oscillation in
the amplifier.

Or, for that matter, it might be part of an impedance transform from one
section to another. Without the complete schematic, there is no way to
tell.

Jim
N6BIU

3017. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-10 18:44:06 UTC
From: "Jock." <real_class_a@yahoo.co.uk>
Message-ID: <vk0jm0lrurjilqn3v02tialk6385looeld@4ax.com>
Source record: 22700
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur,uk.tech.broadcast

On Sun, 10 Oct 2004 09:41:47 -0700, "Ed Price" <edprice@cox.net> wrote:

>
>"Jock." <real_class_a@yahoo.co.uk> wrote in message

>> To be a Frenchman abroad is to be miserable;
>> to be an American abroad is to make others miserable.
>
>Then it logically follows that we should kill 'em all to end their misery.

No, all Americans to make the world a better and safer place.

The Iraqi resistance has made a fair start anyway ...

--

Jock.

To be a Frenchman abroad is to be miserable;
to be an American abroad is to make others miserable.

3018. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-10 18:56:24 UTC
From: zzzpk_pkearn_class_a@multi_band_cb_is_here.eircom.es.it.net
Message-ID: <416985b5.2241852@news1.eircom.net>
Source record: 22701
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur,uk.tech.broadcast

On Sun, 10 Oct 2004 12:12:02 +0100, "Nimrod" <nospamfor@me.com> wrote:

>
>Still feeling a bit rejected Gareth?

how about publishing your own address for a change ?

or is that too much to ask.

3019. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-10 19:49:41 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2stiffF1oonmrU1@uni-berlin.de>
Source record: 22702
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur,uk.tech.broadcast

He's an ex-Brit squaddie and therefore an abject coward.

You are asking the impossible of him.

"ZZZPK" <zzzpk_pkearn_class_a@multi_band_cb_is_here.eircom.es.it.net> wrote
in message news:416985b5.2241852@news1.eircom.net...
> On Sun, 10 Oct 2004 12:12:02 +0100, "Nimrod" <nospamfor@me.com> wrote:
> >Still feeling a bit rejected Gareth?
> how about publishing your own address for a change ?
> or is that too much to ask.

3020. Re: Need help with VHF transmitter kit

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-10 20:39:30 UTC
From: Bob Haberkost <cbclistener-really!-@canada.com>
Message-ID: <66had.811$5N6.412@trndny08>
Source record: 22709
Cross-posted to:
rec.radio.amateur.homebrew,sci.electronics.design,sci.electronics.basics,sci.electronics.misc,alt.radio.broadcasting

"Watson A.Name - "Watt Sun, the Dark Remover"" <NOSPAM@dslextreme.com> wrote in message news:10mi6qak441i47f@corp.supernews.com...
>
> "mndflmr" <mndflmr@hotmail.com> wrote in message
> news:n9j6m09u104h3rbod7ermst3jc421ltqon@4ax.com...

>> Recently I purchased a low-power VHF transmitter kit from Ramsey.
>> After building this kit, I have discovered that it will not work for
>> my purpose. I am trying to transmit audio and video about 20 feet from
>> a satellite receiver to my bedroom. The power output from the
>> transmitter is so low that the picture quality is very poor.

>> Here is the link to the kit manual:
>> http://www.ramseyelectronics.com/downloads/manuals/TV6.pdf
>
> Ramsey purposefully left out the schematic page in this URL. Thanks for
> nothing!

The circuit is simple enough that a schematic isn't all that necessary. At the same time, I can see that there's very little that can be done to boost the signal, short of adding components. This would be, if investigated by the FCC's enforcement of unlicensed radiators (in excess of Part 15 regs) evidence that the user was in violation of the "intentional radiator" limits under Part 15.

> I would try better antennas before hacking the TV6.

The manual goes to some length to describe the expected coverage area for this device. I'm with you that Joe has some issue with antennas (and again, please note that putting an antenna with gain would suggest that the user is intentionally violation Part 15). Is there a set-top antenna being used? Is the feedline from the transmitter unit undamaged, and properly connected? Is there a balun being used to match the 75-ohm output to a 300-ohm folded dipole?

> BTW, you are shamefully crossposting to too many newsgroups!

I show the list of only 5 groups....not excessive, but more than I usually see without it being tagged (and glommed) as spam.
--

If there's nothing that offends you in your community, then you know you're not living in a free society.
Kim Campbell - ex-Prime Minister of Canada - 2004

For direct replies, take out the contents between the hyphens. -Really!-

3021. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-10 20:54:37 UTC
From: Nimrod <nospamfor@me.com>
Message-ID: <2stmp0F1o6r1lU1@uni-berlin.de>
Source record: 22703
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur,uk.tech.broadcast

"ZZZPK" <zzzpk_pkearn_class_a@multi_band_cb_is_here.eircom.es.it.net> wrote
in message news:416985b5.2241852@news1.eircom.net...
> On Sun, 10 Oct 2004 12:12:02 +0100, "Nimrod" <nospamfor@me.com> wrote:
>
> >
> >Still feeling a bit rejected Gareth?
>
>
> how about publishing your own address for a change ?
>
Like you do? HoHum maybe there is truth in those Irish jokes.

Top of the morning to you.

3022. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-10 20:54:44 UTC
From: Nimrod <nospamfor@me.com>
Message-ID: <2stmp7F1pp4ceU1@uni-berlin.de>
Source record: 22704
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur,uk.tech.broadcast

"Airy R. Bean" <me@privacy.net> wrote in message
news:2stiffF1oonmrU1@uni-berlin.de...
> He's an ex-Brit squaddie and therefore an abject coward.
>
> You are asking the impossible of him.
>

Couldn't stay away then Gareth?

Why exactly did you 'leave'?

I do love the way you, Matt, and lucifer are all so sure you know me. You can't all be correct. At the moment none of you are.

3023. Re: power output formula

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-10 21:47:26 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10mjbfmp5o73i35@corp.supernews.com>
Source record: 22710

I think the question is why should engineers, who have designed everything from communications satellites to cell phones to the computer you're using, your ham radio rig, and countless other things over the past couple of hundred years, change their methods? Because Bill isn't able -- or willing -- to understand the difference between charge and electrons?

Sorry, you haven't managed to convince even one engineer, and you've got millions to go. Good luck.

Roy Lewallen, W7EL

Bill Turner wrote:
> On Sun, 10 Oct 2004 09:04:30 +0100, "Ian White, G3SEK"
> <G3SEK@ifwtech.co.uk> wrote:
>
>
>>It's an untidy world, Bill. Please get over it... soon :-)
>
>
> ----------
>
> When I was a little boy, that argument would not have worked with mom.
> I still had to clean my room.
>
> If only mom had been an electrical engineer... "Gosh mom, my room has
> always been like this. Why change things now?"
>
> :-)
>
> --
> Bill W6WRT
>

3024. Re: GPIB-ENET control software

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-10 22:05:18 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <MPG.1bd351f83721bcf7989735@news-central.giganews.com>
Source record: 22711

In article <41690871$0$159$3a628fcd@reader2.nntp.hccnet.nl>, yrrah53
@yahoo.com says...
> Hi all,
>
> Recently I acquired a GPIB-ENET controller. It appears to work. With this
> interface I want to control RF equipment. I can buy NI official software,
> but first I want to know if there's any shareware available, possible in the
> scientific world.

The NI driver page at http://www.ni.com/support/gpib/versions.htm
suggests that you have to pay them US $50.00 for a license to use the NI
488.2 drivers. Pretty lame, if that's true. My guess is that they are
expecting you (the end user) to cough up patent royalties that they (NI)
have to pay to someone else.

I would go ahead and download their "NI-488.2 (Win32) Version 2.2 for
Windows 2000/98/ME/XP" package (http://snipurl.com/9o9w) and see if it
installs. If they don't, you will not be able to use your controller
until you pay them $50.00.

Once you've successfully installed the NI 488.2 drivers, there are quite
a few shareware/freeware applications that will work with your hardware.
I've just released a new version of my HP 7470A plotter emulator that
works with any of the National Instruments interfaces
(http://www.speakeasy.net/~jmiles1/ke5fx/7470.htm).

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

3025. [Annc] New V1.6 version of GPIB utilities including HP 7470A plotter emulator available

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-10 22:22:40 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <MPG.1bd3560ce1db9632989736@news-central.giganews.com>
Source record: 22712
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design,sci.electronics.equipment

```
See http://www.speakeasy.net/~jmiles1/ke5fx/7470.htm for download link
and release notes.

The current version of 7470.EXE has been able to capture screen dumps
from the following instruments using National Instruments GPIB hardware:

Advantest R3762AH VNA
Advantest R4131B DSO
HP 3040A cable tester
HP 8510B VNA
HP 8560A spectrum analyzer
HP 8566B spectrum analyzer
HP 8568B spectrum analyzer
HP 8591E spectrum analyzer
HP 8752C VNA
HP 8753A VNA
HP 8757A scalar network analyzer
LeCroy 9354AM DSO
Tektronix 2430A DSO
Tektronix 490P and 2750P series spectrum analyzers
Tektronix TDS694C DSO
Tektronix TDS784D DPO

Due to several improvements made in this release, many other instruments
should work fine as well... although 7470 is freeware and isn't
guaranteed (or even remotely likely) to work with everything out there.
Feedback is always welcome!

-- jm

-------------------------------------------------------
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam
-------------------------------------------------------
```

3026. Re: What's this inductor doin'?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-10 22:29:35 UTC
From: Steve Evans <smevans@jif-lemon.co.mars>
Message-ID: <r2ejm0t0lfstc6pa8edd2o3statd7a4kr7@4ax.com>
Source record: 22721
Cross-posted to: sci.electronics.basics,rec.radio.amateur.homebrew

On Sun, 10 Oct 2004 14:01:44 +0100, Paul Burridge
<pb@notthisbit.osiris1.co.uk> wrote:

>Well then it appears Reg's hunch was right. The transistor in question
>has an input capacitance of just under 3pF, so the 0.4uH inductor
>forms a parallel tuned circuit with it at 145Mhz. This prevents the
>input signal from partially shunted to ground via the input
>capacitance were the inductor not there. The idea is to allow as much
>of the input signal as possible to develop across the BE diode to
>maximise input impedance and gain. The input capacitance is in
>parallel with this diode and bypasses RF signals around it - which you
>*don't* want. Will a 1uH work instead? Do the maths and find out. But
>if you don't know the inductor's Q that probably won't help much...

Sorry, but none of this makes sense to me. There's no diode involved
so I don't know where you get that from. And what's "input
capacitance" and "Q"?
Do try to speak in plain English!

Steve

--

Fat, sugar, salt, beer: the four essentials for a healthy diet.

3027. Re: What's this inductor doin'?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-10 22:29:36 UTC
From: Steve Evans <smevans@jif-lemon.co.mars>
Message-ID: <o8ejm0lucutbsv4pvs97m0ek9v4hlnlq4c@4ax.com>
Source record: 22722
Cross-posted to: sci.electronics.basics,rec.radio.amateur.homebrew

On Sun, 10 Oct 2004 05:41:23 -0700, Roy Lewallen <w7el@eznec.com>
wrote:

[snip]

>(*) Even this explanation is highly simplified. At higher frequencies,
>the inductor will exhibit additional series and parallel resonances due
>to various parasitic capacitances and inductances and transmission line
>effects.

<groan>
Dur, nope. I still don't get it. Can anyone explain this stuff *in
simple terms*? I'm really struggling here with some of the
terminology. :-(
--

Fat, sugar, salt, beer: the four essentials for a healthy diet.

3028. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-10 23:35:01 UTC
From: "Jock." <real_class_a@yahoo.co.uk>
Message-ID: <mohjm0toqrt3v1psgomjku4i56caqjvuie@4ax.com>
Source record: 22705
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur,uk.tech.broadcast

On Sun, 10 Oct 2004 21:54:44 +0100, "Nimrod" <nospamfor@me.com> wrote:

>
>"Airy R. Bean" <me@privacy.net> wrote in message
>news:2stiffF1oonmrU1@uni-berlin.de...
>> He's an ex-Brit squaddie and therefore an abject coward.
>>
>> You are asking the impossible of him.
>>
>
>Couldn't stay away then Gareth?
>
>Why exactly did you 'leave'?
>
>I do love the way you, Matt, and lucifer are all so sure you know me. You
>can't all be correct. At the moment none of you are.

Yawn!

--

Jock.

Women should not be enlightened or educated in any
way. They should, in fact, be segregated as they are
the cause of hideous and involuntary erections in
holy men.
- Augustine (attributed: source unknown)

3029. Re: Newbie J-Pole.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-11 01:41:35 UTC
From: Kim & Steve Merrill <buck0@comcast.net>
Message-ID: <K42dnYKH-pc2efTcRVn-gQ@comcast.com>
Source record: 22713

Another link to check out: http://home.comcast.net/~buck0/ll_coolj.html

This 2 Meter 1/2-wave j-pole design from 450ohm ladderline will work on both 2M and 70cm.

(Will even work on both bands, as a 2Meter collinear 1/2-wave configuration, as seen at the end of this page...:
http://home.comcast.net/~buck0/ll5coolj.html)

Hope it helps too.
73,
Steve KB1DIG

"Rose and Ian" <rpetersen@cogeco.ca> wrote in message news:CZB9d.270$q02.56585@read2.cgocable.net...
> I am planning to build my first J-pole. Originally it was going to be a 2m
> only. I found a good web site,
> gave me all the measurments and seemed simple enough. I then thought why not
> make it a dual band as I have a dual band mobile. Now the measurement have
> all changed and its seem much more complicated, Im not too good at following
> written instructions. Can anyone help, designs, measurements, web site with
> good pictures and instructions etc.
>
> Any help gratefully recieved
>
> Regards
> Ian Smith
> VA3SOF
>
>

3030. ham humor

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-11 02:57:03 UTC
From: The Eternal Squire <eternalsquire@comcast.net>
Message-ID: <U_6dnVdw64Pia_TcRVn-gQ@comcast.com>
Source record: 22714

Q: What's red and hard and full of siemens?

A: A rusty iron pipe.

Chuckles,

The Eternal Squire

3031. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-11 03:29:23 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <l6nad.4733$kz3.1304@fed1read02>
Source record: 22706
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur,uk.tech.broadcast

"Jock." <real_class_a@yahoo.co.uk> wrote in message
news:vk0jm0lrurjilqn3v02tialk6385looeld@4ax.com...
> On Sun, 10 Oct 2004 09:41:47 -0700, "Ed Price" <edprice@cox.net> wrote:
>
>>
>>"Jock." <real_class_a@yahoo.co.uk> wrote in message
>
>>> To be a Frenchman abroad is to be miserable;
>>> to be an American abroad is to make others miserable.
>>
>>Then it logically follows that we should kill 'em all to end their misery.
>
> No, all Americans to make the world a better and safer place.
>
> The Iraqi resistance has made a fair start anyway ...
>
> --
>
> Jock.

Too bad the last time we had to invade France we didn't leave it as a
democracy. Maybe the next time.....

Ed
wb6wsn

3032. Re: What's this inductor doin'?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-11 05:51:17 UTC
From: Robert Monsen <rcsurname@comcast.net>
Message-ID: <pbpad.368999$Fg5.278975@attbi_s53>
Source record: 22723
Cross-posted to: sci.electronics.basics,rec.radio.amateur.homebrew

Steve Evans wrote:
> On Sun, 10 Oct 2004 14:01:44 +0100, Paul Burridge
> <pb@notthisbit.osiris1.co.uk> wrote:
>
>
>>Well then it appears Reg's hunch was right. The transistor in question
>>has an input capacitance of just under 3pF, so the 0.4uH inductor
>>forms a parallel tuned circuit with it at 145Mhz. This prevents the
>>input signal from partially shunted to ground via the input
>>capacitance were the inductor not there. The idea is to allow as much
>>of the input signal as possible to develop across the BE diode to
>>maximise input impedance and gain. The input capacitance is in
>>parallel with this diode and bypasses RF signals around it - which you
>>*don't* want. Will a 1uH work instead? Do the maths and find out. But
>>if you don't know the inductor's Q that probably won't help much...
>
>
> Sorry, but none of this makes sense to me. There's no diode involved
> so I don't know where you get that from. And what's "input
> capacitance" and "Q"?
> Do try to speak in plain English!
>
> Steve
>

The transistor acts like a tiny capacitor from base to emitter, in addition to its other jobs. Thus, an inductor in series with the base will act like a bandpass filter at

f = 1/(2*pi*sqrt(L*C))

An inductor and capacitor with the same values in parallel will act like a bandstop filter at that frequency.

Q is the "quality or merit factor" of the inductor, and is computed by dividing the 'reactance' (or AC resistance) of the inductor by the DC resistance *at the frequency in question*; it will generally be different at different frequencies. Q is really the ratio of reactive power in the inductance to the real power dissipated in the resistance, and can be computed by using the formula:

Q = 2*PI*f*L/ri

where f is frequency, and ri is the resistance of the coil at f. You buy inductors with a given Q range.

For an LC resonant circuit, the Q of the inductor will affect the 'Q' of the resulting resonance, which simply means that with a bigger Q, the passband or stopband will be wider. The Q of a resonant circuit is defined as the resonant frequency divided by the width of the passband.

--
Regards,
Robert Monsen

"Your Highness, I have no need of this hypothesis."
- Pierre Laplace (1749-1827), to Napoleon,
on why his works on celestial mechanics make no mention of God.

3033. Re: Need help with VHF transmitter kit

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-11 12:24:04 UTC
From: "Watson A.Name - \"Watt Sun, the Dark Remover\"" <NOSPAM@dslextreme.com>
Message-ID: <10mkveb1ji9ms92@corp.supernews.com>
Source record: 22715
Cross-posted to:
rec.radio.amateur.homebrew,sci.electronics.design,sci.electronics.basics,sci.electronics.misc,alt.radio.broadcasting

"Bob Haberkost" <cbclistener-really!-@canada.com> wrote in message
news:66had.811$5N6.412@trndny08...

[snip]

> > BTW, you are shamefully crossposting to too many newsgroups!
>
> I show the list of only 5 groups....not excessive, but more than I
usually see
> without it being tagged (and glommed) as spam.

That's after I deleted a half dozen newsgroups. I wouldn't be surprised
if some of the others chewed him out thoroughly for wasting their time.

> --

3034. Re: Need help with VHF transmitter kit

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-11 13:09:03 UTC
From: Winfield Hill <Winfield_member@newsguy.com>
Message-ID: <cke0lf0p6f@drn.newsguy.com>
Source record: 22716
Cross-posted to:
rec.radio.amateur.homebrew,sci.electronics.design,sci.electronics.basics,sci.electronics.misc,alt.radio.broadcasting

```
>> "mndflmr" wrote ...
>>>
>>> Recently I purchased a low-power VHF transmitter kit from Ramsey.
>>> After building this kit, I have discovered that it will not work
>>> for my purpose. I am trying to transmit audio and video about 20
>>> feet from a satellite receiver to my bedroom. The power output
>>> from the transmitter is so low the picture quality is very poor.
>
>>> Here is the link to the kit manual:
>>> http://www.ramseyelectronics.com/downloads/manuals/TV6.pdf

It's possible mndflmr's problem is misadjusted pots R3 and R7.

--
Thanks,
- Win

(email: use hill_at_rowland-dotties-org for now)
```

3035. Re: 18nH Inductor--Thanks!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-11 13:40:20 UTC
From: John Passaneau <jxp16@psu.edu>
Message-ID: <cke2g6$1ope$1@f04n12.cac.psu.edu>
Source record: 22707
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

"Joe" <nuisancewildlife@nospamearthlink.net> wrote in message
news:LaY9d.13496$gs1.5769@newsread2.news.atl.earthlink.net...
>
> "Roy Lewallen" <w7el@eznec.com> wrote in message
> news:10megpq4nfhsc78@corp.supernews.com...
> > Joe wrote:
> > > . . .
> > > I was wondering about a post I read somewhere else a long time ago. Is
> there
> > > such a thing as a paste (that comes in a tube) that can be applied to
> the
> > > terminals of a surface mount device and then when it is stuck to the
> board,
> > > the paste hardens into something like hardened solder? So it is
mounted
> to
> > > the board and soldered with this paste?
> >
> > One-part conductive epoxy fits that description. It's commonly used to
> > mount SMT parts on hybrid circuits. However, the ones I'm familiar with
> > require curing at an elevated temperature (e.g., 150C for an hour). I
> > believe there are also some UV curing conductive epoxies. Conductive
> > epoxy can be used for mounting parts on a PCB, too, but I don't think
> > it's commonly done because it's considerably more expensive than solder.
> > There might be two-part conductive epoxies that cure at room
> > temperature, but I've never used one and am not sure they exist. The
> > one-part epoxies I've used aren't conductive until they're cured -- the
> > tiny conductive (gold or silver) particles in the paste don't contact
> > each other until the curing process causes the epoxy to shrink and pull
> > them together.
> >
> > Then there's solder paste, nearly universally used for mounting parts on
> > PCBs. This also fits your description and can by applied by hand with a
> > syringe, then melted by a number of means -- hot air, IR, soldering
> > iron. It's actually a slurry of flux and tiny spheres of solder. It's
> > not really sticky, but sort of gummy, so some other means (like
> > superglue) has to be used if the parts need to be kept in place when the
> > board is inverted or severely disturbed before the paste is melted.
> >
> > Roy Lewallen, W7EL
>
>
> Thanks Roy,

>
> It sounds like the solder paste is what I heard about. Sounds easier than
> trying to solder such small parts with an iron. I will see if mouser
carries
> it and give it a try.
>
> Joe
> KB1KVI
>
>
Some more comments about solder paste:

Solder paste has a shelf life. Unlike wire solder it will go bad after a
time on the self.
It cost more than regular solder too. Its also hard to use on components
like IC's with close spaced leads. In the commercial world the solder paste
is put on the board before the components are by a silk screen like process,
then the components are placed. The gummy solder paste is used to hold the
parts in place or if the board is to be inverted, to mount parts on both
sides they are glued in place. The problem for the "home" user is putting
the paste only on the pads of fine pitch parts other wise its no better than
wire solder. The method I use is based on a solder tip for my iron made by
Pace. They call it the "mini wave" tip. It has a oval shaped pit that you
fill with solder. It's used by tacking down the IC by hand using 1 or 2
easier to reach leads, then painting the part liberality with liquid flux.
It looks and is messy, then taking this "mini wave tip" with the pool of
solder and letting the ball of solder just touch the leads on the IC,
quickly wipe the solder pool down the length of the row of IC leads.
Capillary action and the flux pulls the solder onto the leads and does a
very good job of soldering. It takes a bit of practice and some solder wick
to remove the solder bridges that can happen until you get the hang of it
but it works and I've done IC's with up to 164 leads this way. For small
parts like resistors and SOTS and the like I use a very fine tip iron and
lots of liquid flux. Cleaning up the flux can be a problem but there are
flux removers that work. Another way is to use water soluble flux. This is a
very active flux and CAN NOT BE LEFT ON THE BOARD. It must be washed off
with water SOON after use. It's used with solder that also has the same type
of flux in. Soap and water and a small brush works well to clean the water
soluble flux off and leaves you with a very nice looking board. All most all
electronic components are not effected by soap and water as this is the
standard commercial process.

--
John Passaneau, W3JXP
Penn State University
w3jxp@arrl.net

3036. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-11 13:51:18 UTC
From: "Jock." <real_class_a@yahoo.co.uk>
Message-ID: <dt3lm0p579rbvpkuqjhots9lnoeev6isdc@4ax.com>
Source record: 22708
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur,uk.tech.broadcast

On Sun, 10 Oct 2004 20:29:23 -0700, "Ed Price" <edprice@cox.net> wrote:

>
>"Jock." <real_class_a@yahoo.co.uk> wrote in message
>news:vk0jm0lrurjilqn3v02tialk6385looeld@4ax.com...
>> On Sun, 10 Oct 2004 09:41:47 -0700, "Ed Price" <edprice@cox.net> wrote:
>>
>>>
>>>>"Jock." <real_class_a@yahoo.co.uk> wrote in message
>>
>>>> To be a Frenchman abroad is to be miserable;
>>>> to be an American abroad is to make others miserable.
>>>
>>>Then it logically follows that we should kill 'em all to end their misery.
>>
>> No, all Americans to make the world a better and safer place.
>>
>> The Iraqi resistance has made a fair start anyway ...

>Too bad the last time we had to invade France we didn't leave it as a
>democracy. Maybe the next time..........

The sort of democracy you're trying to establish in Iraq, you mean?

--

Jock.

Women should not be enlightened or educated in any
way. They should, in fact, be segregated as they are
the cause of hideous and involuntary erections in
holy men.
- Augustine (attributed: source unknown)

3037. Re: What's this inductor doin'?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-11 16:07:00 UTC
From: Rich Grise <null@example.net>
Message-ID: <Ecyad.4995$gd1.555@trnddc08>
Source record: 22724
Cross-posted to: sci.electronics.basics,rec.radio.amateur.homebrew

On Sunday 10 October 2004 10:51 pm, Robert Monsen did deign to grace us with
the following:

> Steve Evans wrote:
>> On Sun, 10 Oct 2004 14:01:44 +0100, Paul Burridge
>> <pb@notthisbit.osiris1.co.uk> wrote:
>>
>>
>>>Well then it appears Reg's hunch was right. The transistor in question
>>>has an input capacitance of just under 3pF, so the 0.4uH inductor
>>>forms a parallel tuned circuit with it at 145Mhz. This prevents the
>>>input signal from partially shunted to ground via the input
>>>capacitance were the inductor not there. The idea is to allow as much
>>>of the input signal as possible to develop across the BE diode to
>>>maximise input impedance and gain. The input capacitance is in
>>>parallel with this diode and bypasses RF signals around it - which you
>>>*don't* want. Will a 1uH work instead? Do the maths and find out. But
>>>if you don't know the inductor's Q that probably won't help much...
>>
>>
>> Sorry, but none of this makes sense to me. There's no diode involved
>> so I don't know where you get that from. And what's "input
>> capacitance" and "Q"?
>> Do try to speak in plain English!

Possibly surprisingly, all that jargon actually qualifies as English!
It's just that it's, well, jargon. :-)

>>
>> Steve
>>
>
> The transistor acts like a tiny capacitor from base to emitter, in
> addition to its other jobs. Thus, an inductor in series with the base
> will act like a bandpass filter at
>
> f = 1/(2*pi*sqrt(L*C))
>
> An inductor and capacitor with the same values in parallel will act like
> a bandstop filter at that frequency.
>
> Q is the "quality or merit factor" of the inductor, and is computed by
> dividing the 'reactance' (or AC resistance) of the inductor by the DC
> resistance *at the frequency in question*; it will generally be

> different at different frequencies. Q is really the ratio of reactive
> power in the inductance to the real power dissipated in the resistance,
> and can be computed by using the formula:
>
> Q = 2*PI*f*L/ri
>
> where f is frequency, and ri is the resistance of the coil at f. You buy
> inductors with a given Q range.
>
> For an LC resonant circuit, the Q of the inductor will affect the 'Q' of
> the resulting resonance, which simply means that with a bigger Q, the
> passband or stopband will be wider.

You were doing so good up to this point. ;-)

> The Q of a resonant circuit is
> defined as the resonant frequency divided by the width of the passband.

Oh, OK - you've fixed it here.

Cheers!
Rich

3038. Re: What's this inductor doin'?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-11 16:09:17 UTC
From: Rich Grise <null@example.net>
Message-ID: <Neyad.4997$gd1.1352@trnddc08>
Source record: 22725
Cross-posted to: sci.electronics.basics,rec.radio.amateur.homebrew

On Sunday 10 October 2004 03:29 pm, Steve Evans did deign to grace us with
the following:

> On Sun, 10 Oct 2004 05:41:23 -0700, Roy Lewallen <w7el@eznec.com>
> wrote:
>
> [snip]
>
>>(*) Even this explanation is highly simplified. At higher frequencies,
>>the inductor will exhibit additional series and parallel resonances due
>>to various parasitic capacitances and inductances and transmission line
>>effects.
>
> <groan>
> Dur, nope. I still don't get it. Can anyone explain this stuff *in
> simple terms*? I'm really struggling here with some of the
> terminology. :-(
> --

You need to look through these until something starts to make sense to
you:
http://www.google.com/search?q=basic+electronics+tutorial&btnG=Search+the+Web

Welcome to the zoo!
Rich

3039. Re: power output formula

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-11 16:41:46 UTC
From: Joel Kolstad <JKolstad71HatesSpam@Yahoo.Com>
Message-ID: <hcGdnYLxxqMiKvfcRVn-sg@comcast.com>
Source record: 22717

"Bill Turner" <noway@nohow.com> wrote in message
news:jd2km0dsglrp8spg935v093u48lk43nkgg@4ax.com...
> Where I draw the line is those few engineers - and I've met some - who
> believe that current really, really does flow from plus to minus, and
> it's a *real* flow, not just some mathematical concept.

Hole flow in semiconductor devices, which represents a positive charge
current, and certainly can be from 'plus to minus,' is arguably 'real.'

I would agree with you that anyone who seriously misunderstands any of this
and claims to be a practicing electrical engineer should be viewed with a
little skepticism. :-) If you're working with numerous such individuals, it
might be time to look for other jobs...

3040. Re: ham humor

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-11 17:01:14 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2svti1F1pt32mU1@uni-berlin.de>
Source record: 22718

What's long, hard and full of thick semen?

An Irish Submarine

"The Eternal Squire" <eternalsquire@comcast.net> wrote in message
news:U_6dnVdw64Pia_TcRVn-gQ@comcast.com...
> Q: What's red and hard and full of siemens?
>
> A: A rusty iron pipe.
>
> Chuckles,
>
> The Eternal Squire

3041. Re: ham humor

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-11 18:05:05 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2t00flF1qbvuaU1@uni-berlin.de>
Source record: 22719

Perhaps in the light of recent events, that should
read a Canadian Submarine?

"Airy R. Bean" <me@privacy.net> wrote in message
news:2svti1F1pt32mU1@uni-berlin.de...
> What's long, hard and full of thick semen?
>
> An Irish Submarine
>
> "The Eternal Squire" <eternalsquire@comcast.net> wrote in message
> news:U_6dnVdw64Pia_TcRVn-gQ@comcast.com...
> > Q: What's red and hard and full of siemens?
> >
> > A: A rusty iron pipe.
> >
> > Chuckles,
> >
> > The Eternal Squire
>
>

3042. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-11 19:45:43 UTC
From: zzzpk_pkearn_class_a@multi_band_cb_is_here.eircom.es.it.net
Message-ID: <416ae2ba.489023@news1.eircom.net>
Source record: 22728
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur,uk.tech.broadcast

On Sun, 10 Oct 2004 21:54:37 +0100, "Nimrod" <nospamfor@me.com> wrote:

>
>"ZZZPK" <zzzpk_pkearn_class_a@multi_band_cb_is_here.eircom.es.it.net> wrote
>in message news:416985b5.2241852@news1.eircom.net...
>> On Sun, 10 Oct 2004 12:12:02 +0100, "Nimrod" <nospamfor@me.com> wrote:
>>
>> >
>> >Still feeling a bit rejected Gareth?
>>
>>
>> how about publishing your own address for a change ?
>>
>Like you do? HoHum maybe there is truth in those Irish jokes.
>
>Top of the morning to you.

oh look...its CHIKROD ! brother(??) of binary chicken.

3043. Re: What's this inductor doin'?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-11 19:59:11 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <ckeorksip1@newshost.mot.com>
Source record: 22726
Cross-posted to: sci.electronics.basics,rec.radio.amateur.homebrew

"Steve Evans" <smevans@jif-lemon.co.mars> wrote in message
news:r2ejm0t0lfstc6pa8edd2o3statd7a4kr7@4ax.com...
> On Sun, 10 Oct 2004 14:01:44 +0100, Paul Burridge
> <pb@notthisbit.osiris1.co.uk> wrote:
>
> >Well then it appears Reg's hunch was right. The transistor in question
> >has an input capacitance of just under 3pF, so the 0.4uH inductor
> >forms a parallel tuned circuit with it at 145Mhz. This prevents the
> >input signal from partially shunted to ground via the input
> >capacitance were the inductor not there. The idea is to allow as much
> >of the input signal as possible to develop across the BE diode to
> >maximise input impedance and gain. The input capacitance is in
> >parallel with this diode and bypasses RF signals around it - which you
> >*don't* want. Will a 1uH work instead? Do the maths and find out. But
> >if you don't know the inductor's Q that probably won't help much...
>
> Sorry, but none of this makes sense to me. There's no diode involved
> so I don't know where you get that from. And what's "input
> capacitance" and "Q"?
> Do try to speak in plain English!
>
> Steve

Hi Steve (swell name, by the way),
From this last comment, it appears that you have a lot to learn. Paul's was a pretty good explanation of a first step at understanding what might be going on in the circuit shown some time ago (an inductor in shunt with the base-emitter of the transistor).

The Base-Emitter in a transistor is a semiconductor junction just like a diode and in the (higher power) RF amplifiers behaves pretty much like a diode. With RF applied to the base, there will be conduction on the positive peaks only and this will constitute a DC current flow which must have a DC path. The inductor provides such a path since the capacitor can not. If this makes no sense to you then you, indeed are in over your head in an attempt to understand because it is pretty basic and simple. You will need to understand diodes and transistors first.

you say you are "really struggling here with with some of the terminology." Perhaps you can tell us which words are giving you heartburn?

I will respond to Paul's content, however, with this. The BE capacitance of this device, in this aparent application, I am pretty sure is not the dominant effect. The Rrverse biased capacitance is the wrong thing

to focus on. While it is interesting that that it and the inductor are near resonance, this probaly is not what is happening because this would make the inpedance looking into the base very high and difficult to get power to the base, contrary to Reg's hunch. The orignal ASCII cricuit simply had a coupling cap and a base-emitter shunt cap. It looks like class B or C. C more likely. Therefore the transistor is in conduction part of the time and not for another part of the time. Therefore we have a nonlinear, large signal condition. The base impedance under this condition (pulsed conduction) will be quite low and dominate and therefore, it will need some impedance matching to get enough into the base (from the preceeding collector). SO, I say that the inductor is :
1- Providing the obvious DC path and.
2- Impedance matching along with the "coupling" capacitor (did it have a value??)...BUT!

The one monkey wrench I will throw in, is that the Miller effect will also have a very significant effect on the input impedance of the stage. The Ccb is a path providing significant feedback and probably dominating the input impedance.

If you don't recall, the Miller Effect describes the capacitance looking into the base which looks like Ccb times the voltage gain (call it A). This is due to the fact that Ccb connects between the input / base and output / collector. Because the collector voltage is ~~ 180 degrees out of phase, with the base voltage, an input voltage change of, say one millivolt, on the input side of Ccb results in a change in voltage on the output side of Ccb of one milivolt times the voltage gain, A. This results in a total change across Ccb of A+1 milivolts and therefore a current change A+1 times a value that the 1 milivolt input change expected to see. This makes the capacitor look A+1 times as big as it actually is.

Finally, and possibly the most difficult to quantify (ok two monkey wrenches--nobody expects the Spanish inquisition), in RF circuits there is *very frequently* one other confounding factor and this is the circuit board layout and/or the actual physical construction. All the previous talk about how inductors and capacitors behave differently at high frequencies (I believe by Roy Lewallen) is nicely put, but the actual connection methods also can have a very significant effect on what value components are used. The "wiring" can add other capacitances and inductances which, very often, do not show up on the schematic. This can have profound effect on the components used, completely masking any hope of understanding of the circuit from the schematic diagram. As the power level in the circuit goes up, the impedances go down and short wires or PC board runs can become significant impedances, either to help or hurt the desired matching circuit.
--
Steve N, K,9;d, c. i My email has no u's.

3044. Re: What's this inductor doin'?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-11 21:01:46 UTC
From: Joe Rocci <joe@roccis.com>
Message-ID: <_wCad.1355$uN4.36@trndny05>
Source record: 22727
Cross-posted to: sci.electronics.basics,rec.radio.amateur.homebrew

Steve,
I'm not sure, but I think the original post said this stage was a frequency multiplier with an OUTPUT frequency of about 145 MHz. If that's the case, then the INPUT frequency would be 72 MHz or less. At that frequency, I don't think the choke and the input capacitance of the transistor are anywhere near resonance. Also, the coupling cap was stated as 1nF if I recall.

I think what we're looking at here is a DC -lock coupling cap and a DC-return RF choke....nothing more.

Joe
W3JDR

Steve Nosko <suteuve.nosukowicuz@moutouroula.com> wrote in message news:ckeorksip1@newshost.mot.com...
>
> "Steve Evans" <smevans@jif-lemon.co.mars> wrote in message
> news:r2ejm0t0lfstc6pa8edd2o3statd7a4kr7@4ax.com...
> > On Sun, 10 Oct 2004 14:01:44 +0100, Paul Burridge
> > <pb@notthisbit.osiris1.co.uk> wrote:
> >
> > >Well then it appears Reg's hunch was right. The transistor in question
> > >has an input capacitance of just under 3pF, so the 0.4uH inductor
> > >forms a parallel tuned circuit with it at 145Mhz. This prevents the
> > >input signal from partially shunted to ground via the input
> > >capacitance were the inductor not there. The idea is to allow as much
> > >of the input signal as possible to develop across the BE diode to
> > >maximise input impedance and gain. The input capacitance is in
> > >parallel with this diode and bypasses RF signals around it - which you
> > >*don't* want. Will a 1uH work instead? Do the maths and find out. But
> > >if you don't know the inductor's Q that probably won't help much...
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> > Sorry, but none of this makes sense to me. There's no diode involved
> > so I don't know where you get that from. And what's "input
> > capacitance" and "Q"?
> > Do try to speak in plain English!
> >
> > Steve
>
>
> Hi Steve (swell name, by the way),
> From this last comment, it appears that you have a lot to learn.
Paul's
> was a pretty good explanation of a first step at understanding what might

be
> going on in the circuit shown some time ago (an inductor in shunt with the
> base-emitter of the transistor).
>
> The Base-Emitter in a transistor is a semiconductor junction just like a
> diode and in the (higher power) RF amplifiers behaves pretty much like a
> diode. With RF applied to the base, there will be conduction on the
> positive peaks only and this will constitute a DC current flow which must
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> not. If this makes no sense to you then you, indeed are in over your head
> in an attempt to understand because it is pretty basic and simple. You
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terminology."
> Perhaps you can tell us which words are giving you heartburn?
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> capacitance of this device, in this aparent application, I am pretty sure
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> to focus on. While it is interesting that that it and the inductor are
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> resonance, this probaly is not what is happening because this would make
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> inpedance looking into the base very high and difficult to get power to
the
> base, contrary to Reg's hunch. The orignal ASCII cricuit simply had a
> coupling cap and a base-emitter shunt cap. It looks like class B or C. C
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and
> not for another part of the time. Therefore we have a nonlinear, large
> signal condition. The base impedance under this condition (pulsed
> conduction) will be quite low and dominate and therefore, it will need
some
> impedance matching to get enough into the base (from the preceeding
> collector). SO, I say that the inductor is :
> 1- Providing the obvious DC path and.
> 2- Impedance matching along with the "coupling" capacitor (did it have a
> value??)...BUT!
>
> The one monkey wrench I will throw in, is that the Miller effect will also
> have a very significant effect on the input impedance of the stage. The
Ccb
> is a path providing significant feedback and probably dominating the input
> impedance.
>

> If you don't recall, the Miller Effect describes the capacitance looking
> into the base which looks like Ccb times the voltage gain (call it A).
This
> is due to the fact that Ccb connects between the input / base and output /
> collector. Because the collector voltage is ~~ 180 degrees out of phase,
> with the base voltage, an input voltage change of, say one millivolt, on
the
> input side of Ccb results in a change in voltage on the output side of Ccb
> of one milivolt times the voltage gain, A. This results in a total change
> across Ccb of A+1 milivolts and therefore a current change A+1 times a
value
> that the 1 milivolt input change expected to see. This makes the
capacitor
> look A+1 times as big as it actually is.
>
> Finally, and possibly the most difficult to quantify (ok two monkey
> wrenches--nobody expects the Spanish inquisition), in RF circuits there is
> *very frequently* one other confounding factor and this is the circuit
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> layout and/or the actual physical construction. All the previous talk
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> how inductors and capacitors behave differently at high frequencies (I
> believe by Roy Lewallen) is nicely put, but the actual connection methods
> also can have a very significant effect on what value components are used.
> The "wiring" can add other capacitances and inductances which, very often,
> do not show up on the schematic. This can have profound effect on the
> components used, completely masking any hope of understanding of the
circuit
> from the schematic diagram. As the power level in the circuit goes up, the
> impedances go down and short wires or PC board runs can become significant
> impedances, either to help or hurt the desired matching circuit.
> --
> Steve N, K,9;d, c. i My email has no u's.
>
>

3045. Re: What's this inductor doin'?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-11 22:45:39 UTC
From: Steve Evans <smevans@jif-lemon.co.mars>
Message-ID: <fh3mm05oan3ijr2851rdb83d24nhkov5fi@4ax.com>
Source record: 22731
Cross-posted to: sci.electronics.basics,rec.radio.amateur.homebrew

On Mon, 11 Oct 2004 21:01:46 GMT, "Joe Rocci" <joe@roccis.com> wrote:

>Steve,
>I'm not sure, but I think the original post said this stage was a frequency
>multiplier with an OUTPUT frequency of about 145 MHz. If that's the case,
>then the INPUT frequency would be 72 MHz or less.

No Joe! The frequency is 145Mhz throughout.

An aside to Steve... I'm pouring over your expansive explanation.
It'll take a while to sink in, though!

Thanks,

Steve.
--

Fat, sugar, salt, beer: the four essentials for a healthy diet.

3046. Re: What's this inductor doin'?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-11 22:54:38 UTC
From: Steve Evans <smevans@jif-lemon.co.mars>
Message-ID: <7u3mm0lun8fk658o0ibl23neqbf9vmlnt2@4ax.com>
Source record: 22732
Cross-posted to: sci.electronics.basics,rec.radio.amateur.homebrew

On Mon, 11 Oct 2004 14:59:11 -0500, "Steve Nosko"
<suteuve.nosukowicuz@moutouroula.com> wrote:

>The Base-Emitter in a transistor is a semiconductor junction just like a
>diode and in the (higher power) RF amplifiers behaves pretty much like a
>diode. With RF applied to the base, there will be conduction on the
>positive peaks only and this will constitute a DC current flow which must
>have a DC path. The inductor provides such a path since the capacitor can
>not.

Okay, Steve, I'm gonna have to take your explanation in bite-size
chunks. Kindly indulge me...

I don't see that the inductor is necessary to provide such a path to
ground for the signal peaks, since they (the input signal pos. peaks)
turn on the transistor and complete the circuit to ground via the
base/emitter junction, which will be a low resistance path with
sufficient base drive level on the peaks. Can you tell me why this
path alone isn't good enough and there has to be an inductor across
B/E as well?

Thanks!

Steve
--

Fat, sugar, salt, beer: the four essentials for a healthy diet.

3047. Re: ham humor

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-11 23:17:15 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <415mm0500npug7fa1l1dp2fo5a8m2govnp@4ax.com>
Source record: 22729

On Mon, 11 Oct 2004 19:05:05 +0100, "Airy R. Bean" <me@privacy.net>
wrote:

>Perhaps in the light of recent events, that should
>read a Canadian Submarine?

There must already be a bunch of jokes going around over that sub fire
incident. You can always guarantee some wag will come up with a wheeze
over the worst things that happen in life. It's just as well, really
or we'd all go nuts. :-(
--

"What is now proved was once only imagin'd." - William Blake, 1793.

3048. Re: What's this inductor doin'?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-11 23:54:00 UTC
From: Joe Rocci <joe@roccis.com>
Message-ID: <s2Fad.1148$5N6.232@trndny08>
Source record: 22733
Cross-posted to: sci.electronics.basics,rec.radio.amateur.homebrew

Steve,

If the inductor was not there to hold the zero-crossings of the input sine wave at zero volts, then the whole waveform would sink toward a lower DC voltage because it is capacitively coupled. You can prove this to yourself by taking a large capacitor and driving a diode that is connected to ground. The test can easily be done with audio frequencies if you don't have RF equipment. You could also simulate it on a program like SPICE.

If the choke were removed from the circuit, this input DC shift would reverse bias the BE junction, preventing the abiltiy of the waveform to drive current into the BE junction. No base current = no collector current = no gain.

BTW, I was almost sure your original post said this was a multiplier circuit. Did the word "multiplier" not appear in it anywhere? Hmmm...

Joe
W3JDR

Steve Evans <smevans@jif-lemon.co.mars> wrote in message news:7u3mm0lun8fk658o0ibl23neqbf9vmlnt2@4ax.com...
> On Mon, 11 Oct 2004 14:59:11 -0500, "Steve Nosko"
> <suteuve.nosukowicuz@moutouroula.com> wrote:
>
> >The Base-Emitter in a transistor is a semiconductor junction just like a
> >diode and in the (higher power) RF amplifiers behaves pretty much like a
> >diode. With RF applied to the base, there will be conduction on the
> >positive peaks only and this will constitute a DC current flow which must
> >have a DC path. The inductor provides such a path since the capacitor can
> >not.
>
> Okay, Steve, I'm gonna have to take your explanation in bite-size
> chunks. Kindly indulge me...
>
> I don't see that the inductor is necessary to provide such a path to
> ground for the signal peaks, since they (the input signal pos. peaks)
> turn on the transistor and complete the circuit to ground via the
> base/emitter junction, which will be a low resistance path with
> sufficient base drive level on the peaks. Can you tell me why this
> path alone isn't good enough and there has to be an inductor across
> B/E as well?
>
> Thanks!

>
> Steve
> --
>
> Fat, sugar, salt, beer: the four essentials for a healthy diet.

3049. Re: Car Radios: Why is the reception so good...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-12 02:36:47 UTC
From: "Bob D." <bobmgtd@insightbb.com>
Message-ID: <2rHad.113885$He1.9393@attbi_s01>
Source record: 22730

OEM car radios are pretty much state-of-the-art design. They always have been. Today's models have ceramic IF filters, up conversion on AM, noise blankers, audio DSP.... The next generation will have digital IF. For some reason automakers have always been real picky about radio performance, and willing to pay for it! (Been in the OEM automotive radio design biz for 30 years.)

Bob D.

"Steve Nosko" <suteuve.nosukowicuz@moutouroula.com> wrote in message
news:cja0ep$1jo$1@newshost.mot.com...
> #1 reason is the Antenna. #2 cost is king!
>
> Car = antenna on AM & FM
>
> Home radio = Bar antenna on AM and ? what on FM... Sometimes it is the
> power cord. Sometimes you have a wire to drape over the lamp shade. The
> aluminum backing on house insulation can provide some attenuation effect,
> but I'm sure this is less of a factor...it is the primarily the antenna.
>
> Car radios on FM do not have exceptional selectivity as speculated above.
> The adjacent channel selectivity is only fair and the systems are made to
> only use alternate channels in any one market, anyway. When you're
> between
> markets and have a weak station 200 KHz away from a strong one that you
> have
> trouble. If "they" wanted better performance @ home is could be done,
> just
> costs $$. Low IF for reduced BW can be done in any radio, but size and Q
> and frequency are not independent, so lower freq IF means bigger coils and
> more "R", so "same Q - lower IF" is not that simple.
>
>
> Did you hear about that guy who changed his name to "They". Interview on
> pub radio this weekend.
>
>
>
> "Proctologically Violated��" <physical@erols.com> wrote in message
> news:4156c821$0$4034$61fed72c@news.rcn.com...
>> as compared to my home radios/stereos?
>>
>> All--
>>

>> Have wondered for years why this is so--almost w/o
>> exception,
>> on both AM/FM. On the car NGs, it was suggested that my house was
> blocking
>> signals, and that the metallic car acted as a big antenna. Neither seems
>> plausible, as my car next to the shop radio (which is terrible) still
>> gets
>> good reception, and that if the metal in a car were so good, you wouldn't
>> need a car antenna.
>> I'm thinking it's the actual electronics. Any
>> opinions/explanations?
>> ----------
>> Mr. P.V.'d
>> formerly Droll Troll
>>
>>
>
>

3050. Re: Car Radios: Why is the reception so good...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-12 04:58:23 UTC
From: Alf Jacob Munthe <alfjacob@dcpost.no>
Message-ID: <ckfo9i$u1j$1@troll.powertech.no>
Source record: 22734

Hi!

In many European contries we have DAB (DIGITAL) transmissions, mostly along the main roads. I got my last car radio with DAB and also FM. You select a station and there it is, whithout any fallouts or noise on the whole trip, for instance from Oslo to Trondheim. Some entusiast complains about the compression, it is like MP3, but most people find the quality sufficiently good. If the DAB signal falls out, the FM takes over. It is also a very good FM-receiver. I very often listen to a station sending only classical music. Few FM stations relay that program, but with DAB you have it crystal clear all the time!

Is something similar coming stateside?

Alf

"Bob D." <bobmgtd@insightbb.com> skrev i melding
news:2rHad.113885$He1.9393@attbi_s01...
> OEM car radios are pretty much state-of-the-art design. They always have
> been. Today's models have ceramic IF filters, up conversion on AM, noise
> blankers, audio DSP.... The next generation will have digital IF. For some
> reason automakers have always been real picky about radio performance, and
> willing to pay for it! (Been in the OEM automotive radio design biz for 30
> years.)
>
> Bob D.
>
> "Steve Nosko" <suteuve.nosukowicuz@moutouroula.com> wrote in message
> news:cja0ep$1jo$1@newshost.mot.com...
> > #1 reason is the Antenna. #2 cost is king!
> >
> > Car = antenna on AM & FM
> >
> > Home radio = Bar antenna on AM and ? what on FM... Sometimes it is the
> > power cord. Sometimes you have a wire to drape over the lamp shade.
The
> > aluminum backing on house insulation can provide some attenuation
effect,
> > but I'm sure this is less of a factor...it is the primarily the antenna.
> >
> > Car radios on FM do not have exceptional selectivity as speculated
above.
> > The adjacent channel selectivity is only fair and the systems are made
to
> > only use alternate channels in any one market, anyway. When you're

> > between
> > markets and have a weak station 200 KHz away from a strong one that you
> > have
> > trouble. If "they" wanted better performance @ home is could be done,
> > just
> > costs $$. Low IF for reduced BW can be done in any radio, but size and
Q
> > and frequency are not independent, so lower freq IF means bigger coils
and
> > more "R", so "same Q - lower IF" is not that simple.
> >
> >
> > Did you hear about that guy who changed his name to "They". Interview
on
> > pub radio this weekend.
> >
> >
> >
> > "Proctologically Violated��" <physical@erols.com> wrote in message
> > news:4156c821$0$4034$61fed72c@news.rcn.com...
> >> as compared to my home radios/stereos?
> >>
> >> All--
> >>
> >> Have wondered for years why this is so--almost w/o
> >> exception,
> >> on both AM/FM. On the car NGs, it was suggested that my house was
> > blocking
> >> signals, and that the metallic car acted as a big antenna. Neither
seems
> >> plausible, as my car next to the shop radio (which is terrible) still
> >> gets
> >> good reception, and that if the metal in a car were so good, you
wouldn't
> >> need a car antenna.
> >> I'm thinking it's the actual electronics. Any
> >> opinions/explanations?
> >> ----------
> >> Mr. P.V.'d
> >> formerly Droll Troll
> >>
> >>
> >
> >
>
>

3051. Re: OT: attn: gudmundur: Are you still doing SDK-85 stuff?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-12 05:44:36 UTC
From: nospam@nospam.net
Message-ID: <d1qmm0tgpppda76p5edq07tksopdlant84@4ax.com>
Source record: 22736

Well, the truth is I've never tested much beyond using the monitor to assemble simple code and test the unit (9600 7N1). I can dump the first 2K and haven't seen any errors.

I haven't touched this stuff in several years, and even then wasn't a guru. I'm re-training with the official Intel SDK-85 rev. C (hamfest bargain) with version 2.1 of the monitor (from my tech school days) . I'm using the SID/SOD and tapping off ahead of the current loop drivers (in fact they are still connect despite instructions to disconnect them) to the usual 1488/89 for rs232c. My biggest undertaking was getting the monitor in modern digital form by scanning the source code. I had plans to refine my skills and thought this would help. But as time went by I moved on to something else. Now I'm working on some other projects that require me to refresh my skills in this area. In all my schools years, my MCS-85 labs were always my favorite and decided to start back here. Next - re-learn the MCS-48 stuff and on to the modern 8051 derivatives.

Would the monitor source be of intrest to you? I'll have to look at the monitor again and see if I can understand your stack changes.

On Sat, 09 Oct 2004 04:06:32 -0000, hexter@blazenet.net (gudmundur) wrote:

> Wow, I ran across this post by accident, Yes, I am still in the states,
>and just wrote some programs for re-formatting NMEA marine nav data
>strings. I kept most of the second kilobyte intact, with changes mostly
>to the soft uart for 4800 8N1, and extensively modified the first 80
>bytes of stack push/pop locations right up at the beginning of the first
>kilobyte. Used the remainder of the first K for my datastring parsing.
>Have 2K of ram on my little unit (not the original SDK motherboard), and
>I can write little parsing mods in ram to test them. (I work with
>Raytheon older nav equipment, and radar gear, it is my specialty)
> I use the SDK tiny clone to do things like have my Delorme TripMate
>drive my 700L Loran chartplotter.
>
> Did you actually do 9600 baud using the soft uart SID/SOD? I thought
>my 4800 was really pushing the limit for sustained data bursts of
>1 or 2 kilobytes. It was hard to get the timing of the bits just right.
>A little bit fast, or slow, and things slip out of sync after a few
>hundred bytes.
>
>
>
>In article <qle9m0p62jiocb0d65vdqu1uu4m2soaav7@4ax.com>, nospam@nospam.net

>says...
>>
>>gudmundur,
>>
>>I found your April '03 usenet post about the SDK-85 monitor and was
>>unable contact you by email. I have some SDK-85 stuff as well, and
>>have recently pulled it out of storage for a self induced ASM
>>refresher. Several years ago I 'OCR'ed a printout of the SDK-85
>>monitor, with comments, from my school days and managed to get it to
>>compile in Pseudo Sam. It may still have a few typos but it runs. I
>>also did a simple 9600 bps serial mod which seems to work well. I
>>would be intersted in the stack problems and improvements you
>>mentioned.
>>
>>Any interest in sharing info?
>>
>>Thanks,
>>
>>bigk

3052. Re: ham humor

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-12 07:01:15 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <%iLad.11657$qU.11040@clgrps13>
Source record: 22735

Behold, Airy R. Bean signalled from keyed 4-1000A filament:

> Perhaps in the light of recent events, that should read a Canadian
> Submarine?

What do seamen sing by candlelight?

"We all live in a Canadian submarine...."

:-))))

--
Gregg t3h g33k
"Ratings are for transistors....tubes have guidelines"
http://geek.scorpiorising.ca

3053. Looking for IF transformer - 1.6 MHz for tube receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-12 09:35:45 UTC
From: ON5MJ <my_call_sign@skynet.be>
Message-ID: <416ba564$0$22090$ba620e4c@news.skynet.be>
Source record: 22739

Hi everybody,

I would like to find some IF transformers for a tube receiver. Frequency
about 1,600 KHz. Does someone know where this is still for sale ?

Thanks and 73 de Jacques - ON5MJ

mail box is on5mj #arobase# skynet.be

3054. ** FLEA at MIT ** Sunday October 17th Cambridge MA

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-12 11:29:23 UTC
From: w1gsl@mit.edu
Message-ID: <416bc013$0$560$b45e6eb0@senator-bedfellow.mit.edu>
Source record: 22738
Cross-posted to: rec.radio.swap,rec.radio.amateur.misc,rec.radio.info,sci.electronics.misc,ne.forsale,ne.general,rec.radio.amateur.homebrew,rec.radio.amateur.boatanchors

This coming Sunday.... The season's last...

+++ Now even more Buyers Parking !!!
Thanks to TKT we have use of their new parking lot
across Albany St from the SWAPFEST !!!

!! ** More Buyers PARKING is available ** for details see
http://web.mit.edu/w1gsl/Public/flyer

*** !!!! In our Traditional GARAGE and the adjacent lot !!!! ****
so come rain or shine or super heat the Flea is on !!!

********* $1 buyers discount with hardcopy of this notice ********

COMPUTERS - ELECTRONICS - HAM RADIO - COMPUTERS - ELECTRONICS - HAM RADIO

FLEA all SUMMER at MIT
Sunday October 17th 2004
9AM-2PM

Come to the city for a great flea - plenty of free parking.

MIT's electronics and ham radio flea will take
place on the third Sunday of each month this summer,
April thru October.

There is tailgate space for over 600 sellers and
free, off-street parking for >2000 cars!

Buyers admission is $5 (you get $1 off if
you're lucky enough to have a copy of our ad)
and sellers spaces are $20 for the first and
$15 for each additional at the gate.

The flea will be held at the corner of Albany and
Main streets in Cambridge; right in the Kendall
Square area from 9AM to 2PM, with sellers set-up
time starting at 7AM.

*** Attention Sellers ***
Prepaid vendors.. Season Pass or monthly,
will be admitted FIRST.
Separate lines will form prior to gate opening
for prepaid and nonprepaid vendors

!! RAIN or SHINE !! Have no fear of rain, a covered
well illuminated tailgate area is available for all
sellers (6'8" clearance).

Talk-in: 145.23- (PL 88.5) W1BOS/R and
W1XM/R-449.725/444.725 (PL 114.8/2A).

Sponsors: MIT Electronics Research Society
MIT UHF Repeater Association (W1XM)
MIT Radio Society (W1MX)
Harvard Wireless Club (W1AF)

For more info / advanced reservations 617 253 3776

********** $1 buyers discount with hard copy of this notice ************

<<<<<<<<<<<<<<<<<<<<<<< cut here >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>

Mail the coupon below by the 5th of the month to be a Prepaid Vendor.

FLEA at MIT 2004 Rates

SELLERS

Advance $17 First space - includes $10 Cambridge Vendor License
$12 Additional Spaces
Must be received by the 5th of the month.

Gate Admission $20 First Space - includes $10 Cambridge Vendor License
$15 Additional Spaces
Admission is after the prepaid vendors

Early Bird Buyer -Admission after the prepaid vendor line is admitted. ~ 7:15AM
** You may not sell. **
$15 per person at the gate.

****************************** cut here ******************************

FLEA at MIT 2004 Advance Space Application

____April ____May ____June ____ July ____Aug ___Sept ____Oct
@ $17 for the first each month + $12 each additional

Name _____ Call _____ $ Included_____

Address _____ Phone _____ Make Check to
The MIT Radio Society
City _____ State _____ Zip _____ PO Box 397082
Cambridge MA 02139
E-mail _____

****
Steve Finberg W1GSL w1gsl@mit.edu
PO Box 82 MIT Br Cambridge MA 02139-7082 617 258 3754
****

3055. Re: Looking for IF transformer - 1.6 MHz for tube receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-12 12:46:24 UTC
From: "G.Beat" <nonow9mapsgb@no.comcast.spam>
Message-ID: <AmQad.116012$He1.32675@attbi_s01>
Source record: 22740

"ON5MJ" <my_call_sign@skynet.be> wrote in message
news:416ba564$0$22090$ba620e4c@news.skynet.be...
> Hi everybody,
>
> I would like to find some IF transformers for a tube receiver. Frequency
> about 1,600 KHz. Does someone know where this is still for sale ?
>
> Thanks and 73 de Jacques - ON5MJ
>
> mail box is on5mj #arobase# skynet.be
>
The Heathkit HR-10B receiver (tube receiver) used an IF around 1681 kHz.
Other receivers of that era (1950's; 1960s) also used IF frequencies in this
range (above broadcast, below 160 meter allocation).

gb

3056. NOT ifwtech.com

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-12 12:57:25 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <czL7RPQ1S9aBFAO0@ifwtech.co.uk>
Source record: 22737
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

Sorry for the bandwidth, but...

Please note: my former ifwtech.com domain is NOT under my control any more.

I lost that domain name 3 years ago, due to my ISP's careless failure to renew it. Fortunately I also had the ifwtech.CO.UK name registered, and have been using that ever since.

What's new - and nasty - is that ifwtech.com has now fallen into the hands of a company that has reactivated it as a gateway to popup ads, premium-rate phone services and other dubious activities. The really nasty thing is that this new site uses keywords like "yagis" and "power amplifiers", so it can easily be mistaken for something of mine. It most definitely isn't.

Please check, in case you still have any old web links pointing to ifwtech.com. Now would be a *very* good time to update them to ifwtech.CO.UK !

Once again, sorry for the bandwidth... but be warned about other domain names that may have been reactivated as the "evil walking dead".

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

3057. Re: NOT ifwtech.com

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-12 15:41:14 UTC
From: "Gary S." <Idontwantspam@net>
Message-ID: <8munm01ifma11rmc240q4nopk60hqhfs0p@4ax.com>
Source record: 22741
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

On Tue, 12 Oct 2004 13:57:25 +0100, "Ian White, G3SEK"
<G3SEK@ifwtech.co.uk> wrote:

>Sorry for the bandwidth, but...
>
>Please note: my former ifwtech.com domain is NOT under my control any
>more.
>
>I lost that domain name 3 years ago, due to my ISP's careless failure to
>renew it. Fortunately I also had the ifwtech.CO.UK name registered, and
>have been using that ever since.
>
>What's new - and nasty - is that ifwtech.com has now fallen into the
>hands of a company that has reactivated it as a gateway to popup ads,

A former ISP I had used a few years back, apparently suffered the same
fate after they went under, the domain name was snapped up by a
spammer.

Happy trails,
Gary (net.yogi.bear)
---
at the 51st percentile of ursine intelligence

Gary D. Schwartz, Needham, MA, USA
Please reply to: garyDOTschwartzATpoboxDOTcom

3058. Re: ham humor

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-12 16:03:36 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2t2e2bF1r0neeU1@uni-berlin.de>
Source record: 22744

"All the nice girls love a candle,
All the nice girls love a wick,
'Cos there's something about a candle,
That reminds them of a pr***.
Nice and greasy, slips in easy,
It's a girlie's pride and joy.
All the nice girls love a candle,
Ship Ahoy! Ship Ahoy!

(To the tune of "All the nice girls love a sailor")

"Gregg" <nospam@unknown.org> wrote in message
news:%iLad.11657$qU.11040@clgrps13...
> Behold, Airy R. Bean signalled from keyed 4-1000A filament:
>
> > Perhaps in the light of recent events, that should read a Canadian
> > Submarine?
>
> What do seamen sing by candlelight?
>
> "We all live in a Canadian submarine...."
>
> :-))))
>
> --
> Gregg t3h g33k
> "Ratings are for transistors....tubes have guidelines"
> http://geek.scorpiorising.ca

3059. XR-50 coil form

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-12 17:14:42 UTC
From: oh5rm <oh5rm@luukku.com>
Message-ID: <ckh3e0hsa1@phys-news1.kolumbus.fi>
Source record: 22743

Does anybody still have the inductance nomogram for this form?
Mine is lost. oh5rm

3060. Re: Noise Figure Measurements

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-12 17:15:58 UTC
From: Jim <IHateSpam@NoSpam.net>
Message-ID: <gjUad.128$gP.85@fe61.usenetserver.com>
Source record: 22742

Steve,

It has been a couple of years since I have done a noise figure measurement so my brain may be a bit rusty, but I don't see anything wrong with this.

In fact, if you had a calibrated noise source, this is one of the 'official' methods of measuring noise figure.

An anecdotal story for you...

About four years ago (subsequently laid off :-( ) I was working for a company that was making a virtual (that is, used digital signal processing) RF/Microwave measurement system. One of our customers was a >>>Major<<< communications satellite builder. They were complaining that our system was not working right for measuring noise figure. I knew it was, of course, since I had written the software and thoroughly tested it :-). I used two different manual methods, one of which is exactly what you are doing (except for using acalibrated noise source) and got the same answer as my software. Turns out that they (the >>>Major<<< satellite builder) didn't know how to use their nosie figure meter!

Jim
N8EE

"Steve Kavanagh" <skavanagh72nospam@yahoo.ca> wrote in message news:5249fb3f.0410070519.2a1d4f3a@posting.google.com...
> I've been playing with trying to make rough noise figure measurements
> on the cheap and have a couple of questions:
>
> (1) Are there any issues with the following setup and procedure for
> making relative noise figure measurements (e.g. comparing two
> receivers) ?
>
> ```
> ____________ __________ ________
> | | | | | |
> |Uncalibrated| | Step | |Receiver| Audio Out
> | Noise |---->|Attenuator|------>| Under |-------*----o (0 dB)
> | Source | | | | Test | _|_
> |____________| |__________| |________| | |
> | | 2.7k
> |_|
> |
> *----o (-3 dB)
> _|_
> | |
> | | 6.65k
> ```

> |_|
> _|_
> ///
> Procedure:
> (a) For receiver 1 connect a high impedance AC voltmeter to the audio
> output marked "0 dB". Record voltage with noise source off.
> (b) Turn noise source on and measure AC voltage at "-3 dB" output.
> Adjust step attenuator to get same voltage as in step (a). Record
> step attenuator setting.
> (c) Repeat steps (a) and (b) for receiver 2.
> (d) The difference in noise figure between the two receivers is the
> same as the difference in attenuator settings recorded in (b) and (c).
> For example if the attenuation for receiver 1 is 10 dB and for
> receiver 2 is 12 dB, then receiver two has a noise figure which is 2
> dB less than that of receiver 1.
>
> Assuming this is OK we move on to question 2:
>
> (2) To avoid the expense of a calibrated noise source, I wonder if the
> repeatability from unit to unit of simple low noise amplifier circuits
> (perhaps a MAR-6 ?) is good enough to allow one to be used as a noise
> figure standard, at least for fairly rough measurements at HF and VHF.
> I am hoping that accuracies of +/- 1 to 2 dB might be achievable.
> Has anyone measured the NF performance of simple MMIC amps at HF & VHF
> ? Or looked into noise figure repeatability ?
>
> 73,
> Steve VE3SMA

3061. Re: Noise Figure Measurements

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-12 17:15:58 UTC
From: Jim <IHateSpam@NoSpam.net>
Message-ID: <PjUad.129$gP.81@fe61.usenetserver.com>
Source record: 22745

Steve,

It has been a couple of years since I have done a noise figure measurement
so my brain may be a bit rusty, but I don't see anything wrong with this.

In fact, if you had a calibrated noise source, this is one of the 'official'
methods of measuring noise figure.

An anecdotal story for you...

About four years ago (subsequently laid off :-( ) I was working for a
company that was making a virtual (that is, used digital signal processing)
RF/Microwave measurement system. One of our customers was a >>>Major<<<
communications satellite builder. They were complaining that our system was
not working right for measuring noise figure. I knew it was, of course,
since I had written the software and thoroughly tested it :-). I used two
different manual methods, one of which is exactly what you are doing (except
for using acalibrated noise source) and got the same answer as my software.
Turns out that they (the >>>Major<<< satellite builder) didn't know how to
use their nosie figure meter!

Jim
N8EE

"Steve Kavanagh" <skavanagh72nospam@yahoo.ca> wrote in message
news:5249fb3f.0410070519.2a1d4f3a@posting.google.com...
> I've been playing with trying to make rough noise figure measurements
> on the cheap and have a couple of questions:
>
> (1) Are there any issues with the following setup and procedure for
> making relative noise figure measurements (e.g. comparing two
> receivers) ?
>
> ___________ __________ ________
> | | | | | |
> |Uncalibrated| | Step | |Receiver| Audio Out
> | Noise |---->|Attenuator|------>| Under |-------*----o (0 dB)
> | Source | | | | Test | _|_
> |_____________| |__________| |________| | |
> | | 2.7k
> |_|
> |
> *----o (-3 dB)
> _|_
> | |
> | | 6.65k

> |_|
> _|_
> ///
> Procedure:
> (a) For receiver 1 connect a high impedance AC voltmeter to the audio
> output marked "0 dB". Record voltage with noise source off.
> (b) Turn noise source on and measure AC voltage at "-3 dB" output.
> Adjust step attenuator to get same voltage as in step (a). Record
> step attenuator setting.
> (c) Repeat steps (a) and (b) for receiver 2.
> (d) The difference in noise figure between the two receivers is the
> same as the difference in attenuator settings recorded in (b) and (c).
> For example if the attenuation for receiver 1 is 10 dB and for
> receiver 2 is 12 dB, then receiver two has a noise figure which is 2
> dB less than that of receiver 1.
>
> Assuming this is OK we move on to question 2:
>
> (2) To avoid the expense of a calibrated noise source, I wonder if the
> repeatability from unit to unit of simple low noise amplifier circuits
> (perhaps a MAR-6 ?) is good enough to allow one to be used as a noise
> figure standard, at least for fairly rough measurements at HF and VHF.
> I am hoping that accuracies of +/- 1 to 2 dB might be achievable.
> Has anyone measured the NF performance of simple MMIC amps at HF & VHF
> ? Or looked into noise figure repeatability ?
>
> 73,
> Steve VE3SMA

3062. Re: Looking for IF transformer - 1.6 MHz for tube receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-12 20:00:53 UTC
From: ON5MJ <my_call_sign@skynet.be>
Message-ID: <416c3753$0$864$ba620e4c@news.skynet.be>
Source record: 22654

Thank you G. for your reply. This gives me a better clue for searching.
Anyway I don't know yet where to buy a few of those precious IF
transformers.

73 de ON5MJ Jacques.

3063. Re: Looking for IF transformer - 1.6 MHz for tube receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-12 20:30:00 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10moflt367v2i26@corp.supernews.com>
Source record: 22746

ON5MJ wrote:

> Hi everybody,
>
> I would like to find some IF transformers for a tube receiver. Frequency
> about 1,600 KHz. Does someone know where this is still for sale ?
>
> Thanks and 73 de Jacques - ON5MJ
>
> mail box is on5mj #arobase# skynet.be
>
>
You may be reduced to finding decent cans and building your own
transformers using toroids. Not the best solution, but a home made IF
can is certainly in the ham tradition...

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

3064. Re: Looking for IF transformer - 1.6 MHz for tube receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-12 21:38:24 UTC
From: ON5MJ <my_call_sign@skynet.be>
Message-ID: <416c5085$0$10405$ba620e4c@news.skynet.be>
Source record: 22747

Thank you too Tim for your reply. After all why not trying the toroids solution. I am only very few aware if this kind of design.

73 de ON5MJ - Jacques.

3065. Re: Looking for IF transformer - 1.6 MHz for tube receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-12 21:52:42 UTC
From: ON5MJ <my_call_sign@skynet.be>
Message-ID: <416c514b$0$9021$ba620e4c@news.skynet.be>
Source record: 22652

I already have replied to Tim for thanking him but I don't see my reply anymore. Sorry if there is a double reply.

Jacques de ON5MJ

3066. Re: XR-50 coil form

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-12 21:53:51 UTC
From: dont spam me <nospamplease@yahoo.com>
Message-ID: <ckhjpf$n05$1@skeeter.ucdavis.edu>
Source record: 22648

You might join the yahoo rfamplifiers group and ask over there. I'm pretty sure someone over there would have the information.

cheers,
skipp

: oh5rm <oh5rm@luukku.com> wrote:
: Does anybody still have the inductance nomogram for this form?
: Mine is lost. oh5rm

3067. QSL.NET

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-12 22:03:31 UTC
From: songoku_@ig.com.br
Message-ID: <9ec5b8a8.0410121403.6bc99e05@posting.google.com>
Source record: 22653

Hello,
It has been almost a year that I cannot access QSL.NET.
It's not ISP problem, because I've tried at some friends house, and
they could not access as well.
It's not virus problem because I have formatted my PC.

I've heard that QSL.NET has blocked all access from South America. Is
that true?
Why?

This is very selfish of your part, Mr. Admin from QSL.NET (if for
coincidence you are reading this post):
My Radio-Amateur friends an I have always used QSL.NET as a way of
research, look for another ideas, and communicating with other
Radio-Amateur via internet.

You have just cut our access to the server.
Will this selfish and Infantile conduct be forever?

Thank you very much,
Hayato

3068. yahoo rfamplifiers group, now without spam

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-12 22:07:29 UTC
From: Skipp says <specialordersdontupsetus@yahoo.com>
Message-ID: <ckhkj1$n05$3@skeeter.ucdavis.edu>
Source record: 22649

Hi there,

Just a poor man's plug for the yahoo rfamplifiers group. If you'd like to
read amplifier technical posts without all the porno type spam. Drop on
by and join up.

yahoo groups
rfamplifiers

C'ya there

cheers
skipp

3069. Re: What's this inductor doin'?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-12 22:10:41 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <ckhku1$e66$1@newshost.mot.com>
Source record: 22650
Cross-posted to: sci.electronics.basics,rec.radio.amateur.homebrew

"Steve Evans" <smevans@jif-lemon.co.mars> wrote in message
news:7u3mm0lun8fk658o0ibl23neqbf9vmlnt2@4ax.com...
> On Mon, 11 Oct 2004 14:59:11 -0500, "Steve Nosko"
> <suteuve.nosukowicuz@moutouroula.com> wrote:
>
> >The Base-Emitter in a transistor is a semiconductor junction just like a
> >diode and in the (higher power) RF amplifiers behaves pretty much like a
> >diode. With RF applied to the base, there will be conduction on the
> >positive peaks only and this will constitute a DC current flow which must
> >have a DC path. The inductor provides such a path since the capacitor
can
> >not.
>
> Okay, Steve, I'm gonna have to take your explanation in bite-size
> chunks. Kindly indulge me...
>
> I don't see that the inductor is necessary to provide such a path to
> ground for the signal peaks, since they (the input signal pos. peaks)
> turn on the transistor and complete the circuit to ground via the
> base/emitter junction, which will be a low resistance path with
> sufficient base drive level on the peaks. Can you tell me why this
> path alone isn't good enough and there has to be an inductor across
> B/E as well?
> Thanks! Steve

Most certainly, Steve.... Indulge, I will.
This can get confusing... Steve Noskowicz here (K9DCI)

Joe Rocci tried, but I don't think he went through the proper step-by-step
explanation.

OK Here's what happens... Start with the capacitor completely discharged -
zero volts across it - right end same voltage as left side (whatever that
may be). On the first positive peak, some current flows through the base
emitter junction because the voltage on the right side of the cap is the
same as that on the left side. (this assumes there is at least 0.7 volts of
signal coming from the left. NPN transistors conduct current when the base
is about 0.7 volts positive.
The current is some quantity of electrons, right. Well these electrons
will start to "fill up" or charge the capacitor. Each time another positive
pulse happens, the right side of the capacitor collects more and more
electrons. This charges the cap more and more and makes the right side more
and more negative. There is no way to drain off this charge before the next
pulse comes along. The base-emitter junction will be reverse biased and not

conduct any current. I hope you see this because that's the key.
As the caps gets more charge from each pulse, the right side becomes more negative. After each pulse, it will take more and more voltage on the caps left side to get enough voltage on the right side (0.7 volts) to get to the base-emitter conduction voltage and get any current to flow.
The end result is that the capacitor will charge to the peak input voltage (less about 0.7 volts) and the base will never get to the 0.7 volt level. At this point, the base voltage will be swinging (with the input signal causing it) from about 0.7 volts plus to a value equal to *negative* the peak-to-peak input voltage (less the 0.7 volts). That's minus volts. The AC signal at the bacse will NOT be swinting equally around zero volts.

This could be viewed as what we call a "clamper circuit" The AC voltage AT THE BASE will have its positive peak "clamped" or moved to +0.7 volts and the waveform will extend from there as negative as the waveform is tall.

IF we had 5 volts peak (10 volts peak-to-peak) the cap left side, the base voltage will swing from +0.7 volts to -9.3 volts.

WHEW !
Did this work ???
--
Steve N, K,9;d, c. i My email has no u's.

3070. Re: XR-50 coil form

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-12 22:30:24 UTC
From: n2ey@aol.comSPAMNO
Message-ID: <20041012183024.11479.00000845@mb-m29.aol.com>
Source record: 22651

In article <ckh3e0hsa1@phys-news1.kolumbus.fi>, "oh5rm" <oh5rm@luukku.com>
writes:

>Does anybody still have the inductance nomogram for this form?

Oh yes.

Just go here:

http://hometown.aol.com/wn3iyc/myhomepage/photo.html

(sorry about the quality - the original is tiny and my scanner only does 300
dpi)

73 de Jim, N2EY

3071. Rusty bolt effect

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-12 23:15:44 UTC
From: Bill <Bill@birchnet.demon.co.uk>
Message-ID: <nx4ctnDlXGbBFwge@birchnet.demon.co.uk>
Source record: 22657

Hi all,
many years ago I read a very good article on the "rusty bolt effect"
that went into great detail, even as far as warning about corroding coke
cans in the undergrowth. I now can not find my copy of this. I don't
suppose any one can point me in the direction of any good descriptions
of this? I've spent time Googling and have come up with a lot of info
but I'm still looking for something I can show to a non technical person
and hope they can understand the fundamentals.
Any ideas??????
--
Bill

3072. Re: Looking for IF transformer - 1.6 MHz for tube receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-13 01:11:06 UTC
From: Henry Kolesnik <kolesnik@sbcglobal.net>
Message-ID: <Kg%ad.4842$Al3.364@newssvr30.news.prodigy.com>
Source record: 22668

Why not take turns off of a 455KHz IF and perhaps use less capacitance.
One of the more common WWII surplus Rxs had a BCB IF but I can't recall
what was. Perhaps someone here will.

--
73
Hank WD5JFR
"ON5MJ" <my_call_sign@skynet.be> wrote in message
news:416ba564$0$22090$ba620e4c@news.skynet.be...
> Hi everybody,
>
> I would like to find some IF transformers for a tube receiver. Frequency
> about 1,600 KHz. Does someone know where this is still for sale ?
>
> Thanks and 73 de Jacques - ON5MJ
>
> mail box is on5mj #arobase# skynet.be
>
>

3073. Re: yahoo rfamplifiers group, now without spam

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-13 02:48:59 UTC
From: "DR. Death" <nospam.linearschematics@yahoo.com>
Message-ID: <10mp5sinaq02225@corp.supernews.com>
Source record: 22655

"Skipp says" <specialordersdontupsetus@yahoo.com> wrote in message
news:ckhkj1$n05$3@skeeter.ucdavis.edu...
>
> Hi there,
>
> Just a poor man's plug for the yahoo rfamplifiers group. If you'd like to
> read amplifier technical posts without all the porno type spam. Drop on
> by and join up.
>
> yahoo groups
> rfamplifiers
>
> C'ya there
>
> cheers
> skipp
So post the link.

3074. RDS/XM was Re: Car Radios: Why is the reception so good...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-13 03:14:34 UTC
From: R J Carpenter <rcarpen@erols.com>
Message-ID: <Lt-dnWb2uJnwNvHcRVn-hQ@rcn.net>
Source record: 22656

"Doug Smith W9WI" <w9wi@invalid.invalid> wrote in message
news:416BE788.5010308@invalid.invalid...

> For
> that reason, while I've logged over 1,200 FM stations here, I've *never*
> seen one using the RDS "alternate frequencies" function!

Surely you've heard West Virginia Public Radio stations - call letters
generally WVxx. As of a few years ago they all had the AF function active.
I'll admit I haven't checked recently. WETA-FM/WETH-FM had AF some years
ago, but they turned off their RDS a couple of years ago.

> [1] It is already possible via satellite radio. There are two services
> - XM and Sirius - which provide nationwide coverage via satellite direct
> to cars/homes. Both recently obtained permission to install low-powered
> terrestrial repeater stations to ensure reliable coverage in central
> city areas where tall buildings sometimes shield listeners from the
> satellites.

Both sat system have had terrestrial repeater since Day One. They have a
continual fight to continue operating them. IIRC, the recent action merely
extended temporary operating permission. AM/FM broadcasters fear the
satcasters and are playing whatever game they can to restrict their
operation.

I had a 2.5-hour tour of XM this Monday. Billions of dollars invested.
They have around 800 terrestrial repeaters. My guess is that they have
60 to 75 percent of the number of subscribers needed to break even. One
meaningless statistic: they had 25,000 subscriber activations Christmas
Day 2003.

3075. Re: RDS/XM was Re: Car Radios: Why is the reception so good...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-13 04:55:03 UTC
From: Doug Smith W9WI <w9wi@invalid.invalid>
Message-ID: <416CB527.7040207@invalid.invalid>
Source record: 22659

R J Carpenter wrote:
> Surely you've heard West Virginia Public Radio stations - call letters

I have heard the Charleston outlet, but only once and before I had a RDS decoder. Reception to the east is pretty difficult from here - I've never heard South Carolina and have only one each N.C. and Virginia station in the log.

--
Doug Smith W9WI
Pleasant View (Nashville), TN EM66
http://www.w9wi.com

3076. Re: Rusty bolt effect

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-13 05:17:47 UTC
From: Rick Frazier <rickf@rickfrazier.com>
Message-ID: <416CB993.91DDD705@rickfrazier.com>
Source record: 22658

er... these articles didn't happen to originate around April 1 did they?

-_Rick

Bill wrote:

> Hi all,
> many years ago I read a very good article on the "rusty bolt effect"
> that went into great detail, even as far as warning about corroding coke
> cans in the undergrowth. I now can not find my copy of this. I don't
> suppose any one can point me in the direction of any good descriptions
> of this? I've spent time Googling and have come up with a lot of info
> but I'm still looking for something I can show to a non technical person
> and hope they can understand the fundamentals.
> Any ideas??????
> --
> Bill

3077. Re: QSL.NET

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-13 05:46:00 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <si3bd.5524$z96.2254@clgrps12>
Source record: 22662

I don't know if they so much blocked access as they just have shitty
servers and or pipes.

I'm on DSL and for years, no QSL.net web page has loaded at a faster rate
than 1.2kB/s :-(

--
Gregg t3h g33k
"Ratings are for transistors....tubes have guidelines"
http://geek.scorpiorising.ca

3078. Re: Rusty bolt effect

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-13 06:36:26 UTC
From: Bill <Bill@birchnet.demon.co.uk>
Message-ID: <Gfi0GxTPzMbBFwGE@birchnet.demon.co.uk>
Source record: 22661

In message <416CB993.91DDD705@rickfrazier.com>, Rick Frazier
<rickf@rickfrazier.com> writes
>er... these articles didn't happen to originate around April 1 did they?
>

Errrrrrr no they didn't.

--
Bill

3079. Re: Rusty bolt effect

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-13 06:46:04 UTC
From: Bill <Bill@birchnet.demon.co.uk>
Message-ID: <4OGrC0Ue8MbBFwhY@birchnet.demon.co.uk>
Source record: 22660

In message <jkipm0drd6kl0m2uc3jtlq6vg47g2bbpeb@4ax.com>, Paul Keinanen
<keinanen@sci.fi> writes
>On Wed, 13 Oct 2004 05:17:47 GMT, Rick Frazier <rickf@rickfrazier.com>
>wrote:
>
>>er... these articles didn't happen to originate around April 1 did they?
>
>>Bill wrote:
>
>>> many years ago I read a very good article on the "rusty bolt effect"
>>> that went into great detail, even as far as warning about corroding coke
>>> cans in the undergrowth.
>
>The rusty bolt (intermodulation) problem can be quite severe e.g. with
>repeaters in a commercial site with lots of high power transmitters.
>
>Are the coke cans made of iron ?
>Anyway, there would have to be a metal to metal contact that has
>oxidised in order to have this kind of junction problem, so I do not
>understand how thrown away cans could normally create such junctions.
It was maybe 20 years ago that I read this article so I am a little
vague on the details but I seem to recall that it was a build up of
coke, drinks, cans that was a problem. So yes it would be metal to metal
contact.
Another problem it highlighted was the effect of guy ropes. Where a guy
rope is cleated and anchored there is often a short piece of the rope
left over that runs either beside the guy or just hangs there. Not a
problem if it is rope but if it is a wire guy then you can have a 1/4
wave aerial immediately attached to a corroded junction.

>
>Paul OH3LWR
>

--
Bill

3080. Re: XR-50 coil form

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-13 06:47:27 UTC
From: oh5rm <oh5rm@luukku.com>
Message-ID: <ckij1u$9ud$1@phys-news1.kolumbus.fi>
Source record: 22663

"N2EY" <n2ey@aol.comSPAMNO> wrote in message
news:20041012183024.11479.00000845@mb-m29.aol.com...
> In article <ckh3e0hsa1@phys-news1.kolumbus.fi>, "oh5rm"
> <oh5rm@luukku.com>
> writes:
>
>>Does anybody still have the inductance nomogram for this form?
>
> Oh yes.
>
> Just go here:
>
> http://hometown.aol.com/wn3iyc/myhomepage/photo.html
>
> (sorry about the quality - the original is tiny and my scanner only does
> 300
> dpi)
>
> 73 de Jim, N2EY

Thanks Jim,

If I remember wright the original was no good quality either. But when I
printed it now it is quite readable.
Nice to see that there still are hams who know what XR-50 is!

73 de Jouko OH5RM

3081. Re: Noise Figure Measurements

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-13 12:55:44 UTC
From: skavanagh72nospam@yahoo.ca
Message-ID: <5249fb3f.0410130455.5bec70f4@posting.google.com>
Source record: 22664

"bviel" <sjouk@home.nl> wrote in message news:<ck7ivd$3ka$1@news3.zwoll1.ov.home.nl>...

Thanks for the suggestions. I'll have a look at the web references.
Just a couple of notes on things that won't work.

> Noise performance of Mar's MMIC's should be noted on datasheets.

Yes, but they never show the range of noise figures, only a typical or
worst case numbers. Of course if the noise figure is very low (PHEMT)
then the variability is pretty small as long as the circuit is done
right.

> Terminate receiver with 50 Ohm resistor, measure output and label it
> zero dB.

This doesn't work, because the noise is dominated by the receiver
noise, not the resistor thermal noise (unless the receiver is very
very good !).

73,
Steve VE3SMA

3082. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-13 13:05:15 UTC
From: "Jock." <real_class_a@yahoo.co.uk>
Message-ID: <io9qm05n2qc49b5m00fka06nrbmnf4jffl@4ax.com>
Source record: 22665
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur,uk.tech.broadcast

On Wed, 13 Oct 2004 03:07:11 -0700, "Ed Price" <edprice@cox.net> wrote:

>> The sort of democracy you're trying to establish in Iraq, you mean?

>In short, we were quite within our national interests to remove the fascist
>Hussein and Baathists.

Who's going to remove the Bush fascists and their toadies?

>Sorry, but I'm NOT a citizen of the World. So long as Iraqis wielded a sword
>in place of diplomacy, they were in need of containment and/or attitude
>adjustment.

Who's going to contain your sword-wielders? Perhaps another defeat like
Vietnam might sober you up, although I very much doubt it.

>And as far as I can remember, the French plan for Mideast
>stability, protection of human rights and assurance of World oil supplies
>just wasn't working. Uhh, they DID have a plan, didn't they?

They may well have had, but I'd bet it didn't involve illegal, Nazi-style
invasion and occupation of a sovereign country.

--

Jock.

A low voter turnout is an indication of fewer people
going to the polls.

- Dan Quayle ex US Vice President

3083. Re: Noise Figure Measurements

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-13 13:08:37 UTC
From: skavanagh72nospam@yahoo.ca
Message-ID: <5249fb3f.0410130508.231d4b33@posting.google.com>
Source record: 22666

"Jim" <IHateSpam@NoSpam.net> wrote in message
news:<PjUad.129$gP.81@fe61.usenetserver.com>...

> It has been a couple of years since I have done a noise figure measurement
> so my brain may be a bit rusty, but I don't see anything wrong with this.

Thanks, Jim. I thought I had it right but did want a check from
someone with more experience in this field.
>
> In fact, if you had a calibrated noise source, this is one of the 'official'
> methods of measuring noise figure.

Ahhh...and therein lies the real problem for most hams. It just
occurred to me that there might be another solution to this (at least
at HF), which could be to generate noise at an accurately calibrated
level (as accurate as the power supply voltage) using a pseudo-random
digital signal.

73,
Steve VE3SMA

3084. Re: Rusty bolt effect

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-13 13:34:57 UTC
From: john graesser <graesser@tca.net>
Message-ID: <10mqbhgkm59gf80@corp.supernews.com>
Source record: 22667

"Paul Keinanen" <keinanen@sci.fi> wrote in message
news:jkipm0drd6kl0m2uc3jtlq6vg47g2bbpeb@4ax.com...
> Are the coke cans made of iron ?
> Anyway, there would have to be a metal to metal contact that has
> oxidised in order to have this kind of junction problem, so I do not
> understand how thrown away cans could normally create such junctions.

Cans are made of aluminum now, but 30 years ago they were steel. Back then
it took some hand strength to crush a can, now a little girl can do it.

3085. Re: Noise Figure Measurements

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-13 16:33:31 UTC
From: mikea@mikea.ath.cx
Message-ID: <ckjlcr$rg1$3@puck.litech.org>
Source record: 22683

Steve Kavanagh <skavanagh72nospam@yahoo.ca> wrote:
> "Jim" <IHateSpam@NoSpam.net> wrote in message
news:<PjUad.129$gP.81@fe61.usenetserver.com>...

> > It has been a couple of years since I have done a noise figure measurement
> > so my brain may be a bit rusty, but I don't see anything wrong with this.

> Thanks, Jim. I thought I had it right but did want a check from
> someone with more experience in this field.
> >
> > In fact, if you had a calibrated noise source, this is one of the 'official'
> > methods of measuring noise figure.

> Ahhh...and therein lies the real problem for most hams. It just
> occurred to me that there might be another solution to this (at least
> at HF), which could be to generate noise at an accurately calibrated
> level (as accurate as the power supply voltage) using a pseudo-random
> digital signal.

You might find Terry Ritter's work on getting a good noise source to
be of at least a bit (ahem!) of interest:

<http://www.ciphersbyritter.com/NEWS5/FMRNG.HTM>

There are lots of other hits in Google for a search on
'calibrated "pseudo random" noise'
(without the outer single quotes).

It's hard to generate good noise, and at least as hard to find it.

--
Mike Andrews
mikea@mikea.ath.cx
Tired old sysadmin

3086. Re: Rusty bolt effect

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-13 16:46:57 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <ckjmb2$o2h$1@newshost.mot.com>
Source record: 22686

"Bill" <Bill@birchnet.demon.co.uk> wrote in message
news:nx4ctnDlXGbBFwge@birchnet.demon.co.uk...
> Hi all,
> many years ago I read a very good article on the "rusty bolt effect"
> that went into great detail, even as far as warning about corroding coke
> cans in the undergrowth. I now can not find my copy of this. I don't
> suppose any one can point me in the direction of any good descriptions
> of this? I've spent time Googling and have come up with a lot of info
> but I'm still looking for something I can show to a non technical person
> and hope they can understand the fundamentals.
> Any ideas??????
> --
> Bill

I've told this B4, but... It doesn't always have to be IM. There's what I dubbed the "screwdriver effect". Near (within 10 feet or so) a transmitting antenna (2 Meters works great) and receiver on a nearby frequency, rub a screwdriver, or other metal object onto another one.

The Apollo space program used ships at sea for communications. They had high power HF equipment (many kW) which interfered with the radar systems (multi-GHz). The deck railing chain sections used for removable sections were found to be causing the problem. The links move with wind and ship motion causing intermittent and noisy contacts which produced noise that modulated the HF RF field causing sidebands up into the GHz regions.

I observed similar on early car telephones @ 150 KHz. Noisy hood, bumper or trunk (or motorcycle seat spring) junctions caused noise that modulated the transmitter's radiated field which extended into the Rx band and desensitized the receiver. I developed a probe to sniff out the noise sources and bond (make solid) the connections.
One of the local repeaters has a similar problem when it gets windy. Everyone has scratchy noise on their signal, regardless of signal strength. Nobody wants to climb the tower and check every other installation and bolt for tightness or whatever...
--
Steve N, K,9;d, c. i My email has no u's.antenna installation....

3087. Re: QSL.NET

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-13 17:36:52 UTC
From: Lawrence Statton N1GAK/XE2 <lawrence@hummer.cluon.com>
Message-ID: <x7brf6a5aj.fsf@hummer.cluon.com>
Source record: 22689

songoku_@ig.com.br (Hayato) writes:

> I've heard that QSL.NET has blocked all access from South America. Is
> that true?
> Why?

I am in Mexico and I get the same behavior. I had to set up a proxy
server on my colo machine in the US to use their site.

-- --
Lawrence Statton N1GAK/XE2
echo lawrenabae@abaluon.com | sed s/aba/c/g

3088. Re: Looking for IF transformer - 1.6 MHz for tube receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-13 22:16:06 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <d7arm0drasm34cgvble7nfckjc5486gbn8@4ax.com>
Source record: 22680

On Tue, 12 Oct 2004 23:38:24 +0200, "ON5MJ" <my_call_sign@skynet.be>
wrote:

>Thank you too Tim for your reply. After all why not trying the toroids
>solution. I am only very few aware if this kind of design.
>
>73 de ON5MJ - Jacques.
>

probably because they are not so easy for simple IF transformers with
two tuned circuits

73
jm

J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

3089. Re: What's this inductor doin'?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-13 23:02:35 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10mrd0g2o526502@corp.supernews.com>
Source record: 22692
Cross-posted to: sci.electronics.basics,rec.radio.amateur.homebrew

Steve Evans wrote:
>
> Sure did, Steve! I ran it through a spice program and you're right in
> every detail. So there's obviously some basic flaw in my understanding
> of caps. The textbooks say to treat a cap as a short circuit at AC
> (assuiming its reactance isn't too high at the frequency of interest).
> That would appear to be grossly misleading as there's a huge
> difference between the mean voltage levels on each side. . .

The mean voltage on each side is the DC component. The fact that it's different on the two sides illustrates the fact that the capacitor is an open circuit to DC. The shape of the waveforms on the two sides of the capacitor are the same. That illustrates that the AC component is the same on both sides -- the capacitor is a short circuit to AC.

It's gonna
> take me a while to get this trough my thick skull. :-(
> So what happens when you have a small ac ripple riding on a DC bias?

The bias (DC) is removed, and the ripple (AC) is passed through.

> I'll spice it but won't understand it, I guess. :-(

Roy Lewallen, W7EL

3090. Re: QSL.NET

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-13 23:08:28 UTC
From: "Eike Lantzsch, ZP6CGE" <eikelan@gmx.net>
Message-ID: <slrncmrdbc.u1.eikelan@ID-77364.user.individual.net>
Source record: 22669

Hayato wrote:
> Hello,
> It has been almost a year that I cannot access QSL.NET.
> It's not ISP problem, because I've tried at some friends house, and
> they could not access as well.
> It's not virus problem because I have formatted my PC.
>
> I've heard that QSL.NET has blocked all access from South America. Is
> that true?
> Why?
[snip]
>
> Hayato

I'm in South America and can access qsl.net without problems.
Maybe it is because my ISP has an IP-address range within a US ISP's
address pool.

Kind regards, Eike

3091. Re: Noise Figure Measurements

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-13 23:58:24 UTC
From: skavanagh72nospam@yahoo.ca
Message-ID: <5249fb3f.0410131558.4f1c1e16@posting.google.com>
Source record: 22672

"Jim" <IHateSpam@NoSpam.net> wrote in message
news:<Brebd.3$x52.2@fe39.usenetserver.com>...

> As other's have said, there are ways to build a calibrated noise source.
> I've even seen zener diodes and just plain old switching diodes used.

I use a 1N21 (in reverse breakdown) as an uncalibrated source up to
about 5 GHz. A friend uses a 1N23 to 10 GHz. But how can it be
calibrated without using professional test gear ? I don't know.

> What frequency are you using?

Anywhere from HF to 24 GHz is of interest ! I have used the relative
noise figure measurement scheme between 3.5 & 903 MHz so far.

> One thing to keep in mind is that any loss or
> mismatch can affect your measurement.

Indeed...I assume that the use of a reasonable minimum attenuation in
the step attenuator will minimize the effects of receiver input
mismatch on the measurement accuracy (assuming the attenuator is
itself well matched). I rather doubt that I would be able to homebrew
an accurate measurement system at 24 GHz (or even 10 GHz). But
construction tolerance issues should not be a problem at HF or (with
care) at VHF.

73,
Steve VE3SMA

3092. Re: Looking for IF transformer - 1.6 MHz for tube receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-14 00:50:27 UTC
From: ON5MJ <my_call_sign@skynet.be>
Message-ID: <416dcc76$0$9008$ba620e4c@news.skynet.be>
Source record: 22688

Thank you Henry for your reply.

I have though to this solution before and I made a simple simulation where coils remain the same: in this case the capacitance must be divided approximately by 12 (exactly square of 1.6/.455). So moving the frequency from 455 KHz to 1.6 MHz should probably imply to unwind some length of wire to keep a realistic capacitance including the stray one I can't avoid. Consequently I am now wondering if the optimal coupling between primary and secondary would still exist ? I hope it is but probably not and in this case the problem is not solved.

Does anyone have any experience in this domain ?

73 de ON5MJ - Jacques.

3093. Re: Noise Figure Measurements

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-14 04:24:56 UTC
From: bviel <sjouk@home.nl>
Message-ID: <ckkv2n$835$1@news2.zwoll1.ov.home.nl>
Source record: 22674

By the way....

I worked out your method of Noise Figure measurements of two receivers
at a mathematical way and it seemed right.
I am glad the same statement where made by the professionals under us.
They are a bit "rusty" but we need them !

"bviel" <sjouk@home.nl> schreef in bericht
news:ckkuco$k7s$1@news5.zwoll1.ov.home.nl...
>
> "Steve Kavanagh" <skavanagh72nospam@yahoo.ca> schreef in bericht
> news:5249fb3f.0410130455.5bec70f4@posting.google.com...
> > "bviel" <sjouk@home.nl> wrote in message
> news:<ck7ivd$3ka$1@news3.zwoll1.ov.home.nl>...
> >
> > Thanks for the suggestions. I'll have a look at the web references.
> > Just a couple of notes on things that won't work.
> >
> > > Noise performance of Mar's MMIC's should be noted on datasheets.
> >
> > Yes, but they never show the range of noise figures, only a typical or
> > worst case numbers. Of course if the noise figure is very low (PHEMT)
> > then the variability is pretty small as long as the circuit is done
> > right.
> The noise figure of a MMIC is flat from DC to Ghz, the one I worked with.
> Did not test the Mar's.
> >
> > > Terminate receiver with 50 Ohm resistor, measure output and label it
> > > zero dB.
> >
> > This doesn't work, because the noise is dominated by the receiver
> > noise, not the resistor thermal noise (unless the receiver is very
> > very good !).
> The method is from JT44 EME software where you can measure noise figures.
> The Help with the program should explain everything.
> I myself am in the position to measure noise with my scope for a "second"
> opinion.
> The noise of a high frequency transistor b-e diode should deliver the
right
> sort of noise
> also called white noise.
> Or high frequency diode microwave type.
> The transistor has because of his junction noise behavior the most real
> white noise,
> or general white noise.

>
>
>
> >
> > 73,
> > Steve VE3SMA
>
>

3094. Re: Noise Figure Measurements

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-14 04:49:01 UTC
From: bviel <sjouk@home.nl>
Message-ID: <ckl0frihm1@news2.zwoll1.ov.home.nl>
Source record: 22676

By the way....

I worked out your method of Noise Figure measurements of two receivers
at a mathematical way and it seemed right.
I am glad the same statement was made by the professionals under us.
They are a bit "rusty" but we need them !
http://www.mth.msu.edu/~maccluer/Lna/noisetemp.html
Amplifier Noise Measurements layout linked, by a German company
that sells LNA's.

"Steve Kavanagh" <skavanagh72nospam@yahoo.ca> schreef in bericht
news:5249fb3f.0410130455.5bec70f4@posting.google.com...
> "bviel" <sjouk@home.nl> wrote in message
news:<ck7ivd$3ka$1@news3.zwoll1.ov.home.nl>...

3095. Re: QSL.NET

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-14 11:57:27 UTC
From: songoku_@ig.com.br
Message-ID: <9ec5b8a8.0410140357.66db3f6d@posting.google.com>
Source record: 22673

I have an e-mail account, I receive 1500+ spam per day. But any of them are from Brazil.

Thanks

3096. Re: Noise Figure Measurements

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-14 13:37:13 UTC
From: skavanagh72nospam@yahoo.ca
Message-ID: <5249fb3f.0410140537.2582b92@posting.google.com>
Source record: 22682

Some assorted comments and follow-on questions on your suggestions:

- (from bviel) The Elecraft noise generator is not a calibrated unit. They give a typical ENR but specifically state that it varies from unit to unit. Their low-level signal generator is calibrated (though perhaps not quite accurately enough) but this would bring in the issue of measurement errors between noise and sine-wave powers. And it only works at one frequency.

- (from bviel) Which MMIC did you find had flat noise figure to 1 GHz ? My experience is that MMIC NF specs are usually at a frequency above the flat part of the spectrum, as this is more indicative of the high frequency performance. Are there any with noise figure also specified, or at least well characterized, at low frequencies (within the spectral region where the NF is flat) ? But the other question with MMICs is the unit-to-unit variation in noise figure which I don't believe is ever specified. If all units of a given part have, say, between 2 and 3 dB noise figure then a MMIC amp could be a fairly good standard for amateur use, but if the variation is from 1 to 4 dB then the usefulness is limited, in my opinion.

- (from bviel) I don't have the JT-44 software but I did look at the (full) manual. On page 35 it describes the "Measure Sub-Mode" which allows noise levels to be compared. However it does not appear to support absolute noise figure measurements (unless you use a calibrated noise source). Is there more in the online help ?

- (from Mike Andrews) Terry Ritter's stuff seems mostly concerned with the degree of randomness rather than absolute output power, which makes sense as he is concerned with cryptography. But I did find, elsewhere on his web page,

http://www.ciphersbyritter.com/REALRAND/92102201.HTM

a low frequency noise generator based on a diode source followed by a limiting amp. I imagine this concept could be extended to HF by suitable choice of amplifier. I am not sure of the significance of the very different output waveform (pulses of random width and fixed amplitude) compared to the true random (Gaussian) noise from the diode itself. I am not sure if I am willing to tackle the math needed to understand this or to calculate the ENR - can anyone help ?

73,
Steve VE3SMA

3097. Re: QSL.NET

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-14 14:32:41 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <d6wbd.2419$cr4.325@edtnps84>
Source record: 22679

Behold, Hayato signalled from keyed 4-1000A filament:

> I have an e-mail account, I receive 1500+ spam per day. But any of them
> are from Brazil.

I think it depends on the recipient country as to what proxy and open
relay the spammers use. I have never received one from South America, or
relayed through there.

The sophistication of spamming systems are mind boggling. That's one of
the reasons they will never all be shut down. A good example was one week
last February, many Canadian ISP's got hit with spam relayed through
proxies on the US cia.gov and fbi.gov servers!!! Not only is that
sophisticated, that takes BALLS!

--
Gregg t3h g33k
"Ratings are for transistors....tubes have guidelines"
http://geek.scorpiorising.ca

3098. Re: QSL.NET

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-14 18:05:47 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10mtfvufqbkko5e@corp.supernews.com>
Source record: 22685

It's difficult to determine the real source of spam, since the From and Reply-To lines are always forged. (My email address appears on some, since spam bots pick it off the Web and use it in forged addresses. I see those often when they're sent to an invalid address and bounce.) SpamCop is a service which parses the message header to determine the true source of spam. It's not perfect, but does a decent job. I've seen .br as the source of quite a few spams I've run through their parser. Of course, the greatest number come from the US, or at least US ISPs, but then so do the majority of the legitimate messages to those of us in the US.

Roy Lewallen, W7EL

Hayato wrote:

> I have an e-mail account, I receive 1500+ spam per day. But any of
> them are from Brazil.
>
> Thanks

3099. Replacing xtals with nano-tubes (Nature)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-14 21:08:55 UTC
From: John Walton <jdwalton@comcast.net>
Message-ID: <Q92dnQiIffNadPPcRVn-vw@comcast.com>
Source record: 22670

reading an article in "Nature" I was intrigued with work done by a group at Cornell -- exploiting the fact that as a nanotube flexes (by imposition of a charge) the capacitance changes -- the researchers made a nice little 50MHz oscillator --

3100. Re: What's this inductor doin'?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-14 22:17:02 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <ckmu1u$b60$1@newshost.mot.com>
Source record: 22691
Cross-posted to: sci.electronics.basics,rec.radio.amateur.homebrew

long post warning directed at Ratch...

Hi there Ratch. Comments inserted below, but I am using terminology that has been used for a long time and is commonly accepted. If the OP has problems, I prefer him to pose (sp) the questions for clarification.

Much of what you point out is right along the lines of the following examples.

ROM stands for "Read Only Memory", right?
RAM stands for "Random Access Memory", right?

Yet ROM is also "Random Access". Therefore, ROM IS RAM. These are conventions which came about by an imperfect system of terminology. Namely, whatever sticks gets used.

Example closer to this:

Does a "river flow"? Do you know what this means? I think you do, yet by your comment a river is a flow of watter and "a river flows" would be "incorrect". We could only say that "Water Flows".

While I appreciate youre desire to be correct, I do not believe the OP would be confused by my use of very common terminilogy and if he/she is, then the questions will come from them/he/she.

I would, however, ask that you comment on the concepts in question. Is it an explanation of *WHY* the coupling cap causes the Veb to go negative causing no conduction in the part?

"Ratch" <Watchit@Comcast.net> wrote in message
news:Hkhbd.120265$He1.113453@attbi_s01...
> "Steve Nosko" <suteuve.nosukowicuz@moutouroula.com> wrote in message
> news:ckhku1$e66$1@newshost.mot.com...
> > > >[...snippity snip...]
> > > > On the first positive peak, some current flows through the base
>
> Current does not flow. Current IS flow.

I agree (in a manner of speaking) that changing this to:

" some charge flows through the base emitter junction"
is "correct", but I maintain that it is _just as understandable_.

However, if I really wanted to use the word, current, how would you word it? What does current do when it does its thing? Since "flow" is included

in the term "current", would I say:
" On the first pulse, some current happens through base emitter junction." ?
We don't talk that way.

> > The current is some quantity of electrons, right.
> Er, no. Current is quantity of charge per unit time.

Certainly it is. However, the point is that the capacitor develops a potential difference across its two terminals because of the difference of charge between the two sides. I maintain that my use is common usage in the field. I agree that I could have said:
"The current is some quantity of electrons per time, right."
I believe that either way, the following sentence would provide the necessary train of thought.

> > Well, these electrons will start to "fill up" or charge the capacitor...

Then you say:
> A capacitor does not charge.

It is completely common to refer to "charging a capacitor". You will probably be very surprised that we also refer to "charging an incuctor". This use of the word "charge" no longer refers to electron charge (in both cases), though that is where the term originated. This "charge" is a generic term meaning, perhaps, to "impart come analog quantity", or "fill with some desired substance" which can be electrons, magnetic field, or Halon. Just like we may say to "charge a battery" or "charge" one of those glow-in-the-dark things by holding it near a strong light, then turning off the light to watch it glow brightly. Although we commonly "load" a spring, we could also use this convention (though unconventional for a spring) and charge it in some situation. We "charge" fire extinguishers, but no current flows there eigher and we "charge" gasoline at the pump. Still no electrons. It's common usage which may be imperfect, but accepted and understood as a result.

Going in to depth on a capacitor, you say...
> The net change of charge is zero for a
> capacitor going from zero volts to its breakdown voltage. That is because
> for each amount of charge stored on one plate, the same amount of charge
> leaves the opposite plate. Now it takes energy to accumulate or deplete
> like charges (electrons in this case) because they do not like to get
close
> together. This energy is stored in a electrostatic field proportional to
> the square of the voltage. Therefore a capacitor should be described as
> being "energized", not "charged". Ratch

While this is a detailed description of what may be some of the properties of electric charge and the capacitor, I did not believe that going down to this level of information helps understand how the Base bias goes negative in the target circuit. The operation of the capacitor is a lower level concept which I was hoping the OP had some understanding of. If

not, then more detail of capacitors would be evident from the OP's follow-up.

I'll do what I accuse you of doing and see how you respond.
I have to give the statement "net change of charge is zero for a capacitor going from zero volts to its breakdown voltage" some analysis.
First, I don't think capacitors "go" anywhere when we drive electrons onto one side. (do they sit in the back seat or front?)
Second, I could argue that there is a *change* of charge because there are more electrons on one of the capacitor foils than the other...but that's another thread. I'm just trying to reenforce my point that our use of terminology is imperfect, but in some circles it is accepted.
Oh yes, I don't believe electrons "like" or "dislike" anything... I don't think they can. They do, however, appear to have a repelling force when brought near each other.

Whether or not the net charge changes, we certainly have rearranged that charge such that there is one hell of a potential differennce between the capacitor plates. That is the point.

Gee, do modern capacitors have "plates" any more... so...what do I call these things, eh?

We "energize" circuits and light bulbs. Does that mean that there must be some stored charge differential, as in a capacitor, in order for us to use that term?

...Didn't see any more of your comments...

I maintain that it is common and acceptable for:
current to flow.
Capacitors to charge and discharge.

By the way, even though *you* also use some of this imperfect terminology, I know precisely what you **mean** when you say:
"for a capacitor going from zero volts to its breakdown voltage" - don't go anywhere
"charge stored on one plate" - no plates in many a common cap these days
"they do not like to get close together" - what other emotions do electrons have...

The point of the thread is:
If I replace all of my terms with yours, will the explanation then tell the OP why the inductor is needed ??

73,
--
Steve N, K,9;d, c. i My email has no u's.

3101. Re: What's this inductor doin'?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-14 22:24:19 UTC
From: Steve Evans <smevans@jif-lemon.co.mars>
Message-ID: <kmutm0pljptt1onk6a01urao5uam3cupo6@4ax.com>
Source record: 22693
Cross-posted to: sci.electronics.basics,rec.radio.amateur.homebrew

On Tue, 12 Oct 2004 17:10:41 -0500, "Steve Nosko"
<suteuve.nosukowicuz@moutouroula.com> wrote:

> This could be viewed as what we call a "clamper circuit" The AC voltage
>AT THE BASE will have its positive peak "clamped" or moved to +0.7 volts and
>the waveform will extend from there as negative as the waveform is tall.
>
>IF we had 5 volts peak (10 volts peak-to-peak) the cap left side, the base
>voltage will swing from +0.7 volts to -9.3 volts.

Okay, upon further thought about this there's still something amiss in
my understanding. I take what you say about the cap blocking out the
DC component of the waveform to leave the AC largely unaffected.
However, the term "clamping" AIUI means the diode lops off anything
over about 0.7 volts from the input waveform (ie, it conducts it away
to ground) so around half of it is lost (half wave rectification). Now
you state (and the spice progs agree) that what *actually* happens in
this case is that the whole AC waveform gets shifted south into
negative territory. It's still a full wave, but it's way down into
the negative and only the highest peaks just creep above zero volts.
Is this effect *solely* attributable to the steady build-up of
negative charge on the cap's RHS? I think what's really freaking me
out here is the fact that the signal source is grounded on the neg.
side and yet we have that same signal that after going through a cap
can end up going fully negative *below* ground. It just seems like any
such voltage beneath zero/ground potential is breaking the laws of
physics. Ground should be the 'absolute zero' of the potentials in any
circuit and here it is being violated. I need some help to get my
thick head around the concept! :-(
--

Fat, sugar, salt, beer: the four essentials for a healthy diet.

3102. Re: Short avi clip of me fucking a goat. Enjoy

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-14 22:29:38 UTC
From: Dave <DevarimNOSPAM@hotmail.com>
Message-ID: <ef5e635be65237c14e67d48c6392adc5@news.meganetnews.com>
Source record: 22677
Cross-posted to: rec.radio,rec.radio.amateur,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy

Come on - even if it wasn't painfully obvious this is a virus,
why on EARTH would ANYONE want to download a
file like that? Can you Romainian fuckwits not at least tempt
the stupid with Britney Spears or J Lo?... a GOAT?

Ho hum. What is virus spam coming to anyway.... makes
ya long for the days of Anna Kournikova....

<gcameron@nc.rr.com> wrote in message
news:j4vbd.6105$Fe6.1599089@news4.srv.hcvlny.cv.net...
> Wicked. Check Attached file
>
>

>
>
> #,`````
> `(`````````!'

3103. Re: Noise Figure Measurements

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-14 23:12:54 UTC
From: Stewart Bryant <stbryant@cisco.com>
Message-ID: <1097795826.35817@sj-nntpcache-3>
Source record: 22684

Can you measure the noise power of the noise source by comparing
the output (through the RX) with the power from a signal
generator (again through the RX) of known output power?
Presumably using some form of averaging of multiple readings
across the RX passband.

- Stewart G3YSX

Steve Kavanagh wrote:

> Some assorted comments and follow-on questions on your suggestions:
>
> - (from bviel) The Elecraft noise generator is not a calibrated unit.
> They give a typical ENR but specifically state that it varies from
> unit to unit. Their low-level signal generator is calibrated (though
> perhaps not quite accurately enough) but this would bring in the issue
> of measurement errors between noise and sine-wave powers. And it only
> works at one frequency.
>
> - (from bviel) Which MMIC did you find had flat noise figure to 1 GHz
> ? My experience is that MMIC NF specs are usually at a frequency
> above the flat part of the spectrum, as this is more indicative of the
> high frequency performance. Are there any with noise figure also
> specified, or at least well characterized, at low frequencies (within
> the spectral region where the NF is flat) ? But the other question
> with MMICs is the unit-to-unit variation in noise figure which I don't
> believe is ever specified. If all units of a given part have, say,
> between 2 and 3 dB noise figure then a MMIC amp could be a fairly good
> standard for amateur use, but if the variation is from 1 to 4 dB then
> the usefulness is limited, in my opinion.
>
> - (from bviel) I don't have the JT-44 software but I did look at the
> (full) manual. On page 35 it describes the "Measure Sub-Mode" which
> allows noise levels to be compared. However it does not appear to
> support absolute noise figure measurements (unless you use a
> calibrated noise source). Is there more in the online help ?
>
> - (from Mike Andrews) Terry Ritter's stuff seems mostly concerned with
> the degree of randomness rather than absolute output power, which
> makes sense as he is concerned with cryptography. But I did find,
> elsewhere on his web page,
>
> http://www.ciphersbyritter.com/REALRAND/92102201.HTM
>
> a low frequency noise generator based on a diode source followed by a

> limiting amp. I imagine this concept could be extended to HF by
> suitable choice of amplifier. I am not sure of the significance of
> the very different output waveform (pulses of random width and fixed
> amplitude) compared to the true random (Gaussian) noise from the diode
> itself. I am not sure if I am willing to tackle the math needed to
> understand this or to calculate the ENR - can anyone help ?
>
> 73,
> Steve VE3SMA

3104. Re: What's this inductor doin'?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-14 23:37:36 UTC
From: Joe Rocci <joe@roccis.com>
Message-ID: <45Ebd.302$Am1.102@trndny03>
Source record: 22690
Cross-posted to: sci.electronics.basics,rec.radio.amateur.homebrew

Thanks for re-posting that Steve. I don't know where I got the crazy idea
that this was a multiplier stage....maybe I'm confusing this with a
different thread.

Thanks
Joe
W3JDR

Steve Evans <smevans@jif-lemon.co.mars> wrote in message
news:gastm0hvua613usng7ued0kl399s5a2j76@4ax.com...
> On Wed, 13 Oct 2004 22:58:47 GMT, "Joe Rocci" <joe@roccis.com> wrote:
>
> >> Thanks for the explanation, Joe, but no. I never said anythink about
> >> multiplicaiton
> > >
> > >Steve,
> > >Can you send me a copy of the original post? When these things happen, I
> > >like to see where my crazy notions came from.
> >
> > Here it is in its entirety....
> >
> > Hi everyone,
> >
> > Below you will find my attempt to show in text-form, a circuit
> > fragment from a 145Mhz amplifier:
> >
> >
> > --------------capacitor--------------------------------transistor base
> > |
> > |
> > I
> > |
> > coil
> > |
> > |
> > |
> > |
> > --GND
> >
> > The cap's value is 1nF; the inductor's is 0.4uH.
> > The cap (I assume) is to couple one amplifier stage into the next
> > (50ohm source/load) with minimal attenuation of the desired VHF
> > signal. But like what's the purpose of this inductor to ground??
> > --

>
> Fat, sugar, salt, beer: the four essentials for a healthy diet.

3105. Re: Rusty bolt effect

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-14 23:39:38 UTC
From: Kaskghafmight@hotmail.com
Message-ID: <ckn2np$j7a$1@news8.svr.pol.co.uk>
Source record: 22687

Can only find this from RSGB TVI book

13. The rusty-bolt effect

High-pass filters (at the television receiver aerial terminals) and low-pass filters (at the transmitter) do not always cure TVI problems. Substitution of other TV sets can generally show if the cause is a faulty transmitter or faulty television receiver, but if substitution shows the interference effect to continue, then the cause becomes more difficult to establish. The ''rusty-bolt" effect is one of the hardest of all these TVI causes to locate.
If a known clean transmitter is causing interference to a known good television receiver, then an external cause can be suspected. Perhaps the transmitter signal is being picked up by a local conductor such as a clothes-line or fence-wire. A rusty or corroded joint in this conductor may be acting as a diode. Harmonics of the transmitter signal could be produced by this spurious diode detector and re-radiated. These harmonics can be received by the television receiver and cause interference to the picture or sound.
Such interference may vary with the weather. It may be intermittent and be affected by wind as well as rain.
Typical offenders are metal-tile roofs, metal gutters and down pipes. A heavy blow with a hammer may sometimes correct an offending joint. Applying water from a hose can sometimes change or remove the interfering source and help to identify the culprit.
Either bonding or insulating the offending joint may solve the problem. More than one joint may be causing trouble. Bonding is generally impossible with metal tiles. Shifting the television aerial away from the offending harmonic source or sources is a more practical cure. A bonded wire mesh over the offending joint may be considered. It is unlikely that a complete metal roof will have to be bonded to effect a cure.
Bonding suspect joints can sometimes produce problems. With bonded conductors, a better signal pick-up may result, larger radio frequency currents may flow, and the problem may shift to another joint that was hitherto not suspect. Insulating the suspect joints may sometimes be more effective. A change to nylon guy-wires may sometimes eliminate problem joints.
The accepted rule is that if the offending joints are on the amateur's property, the problem is his. If the offending joints are on the property of the television set's owner the problem is his, Unfortunately, few set-owners understand this problem and so the radio amateur should offer technical assistance and advice. Re-siting the television set aerial or the transmitting aerial is often the only practicable cure.

3106. Re: Noise Figure Measurements

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-15 00:10:41 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10mu5c43ls69r38@corp.supernews.com>
Source record: 22675

You also have to know the noise bandwidth of the system to use this method. If the response is dominated by a single, fairly steep-sided filter, this is easy. But otherwise (such as if both IF filtering and AF amplifier response shape the overall response), some calculation and/or measurement is required. I've gotten what I believe are reasonable results on HF and AF amplifiers using this method. But I haven't tried it on a really low NF system, so would heed Jim's caution.

Roy Lewallen, W7EL

Jim wrote:

> Steve,
>
> There is another method of measuring noise figure that does not need a noise
> source.
>
> The reason that it is not used as often is that it is harder to measure low
> noise figures accurately. Since there are still a few layers of rust on my
> brain I will not geive the details here, since i do not want to say anything
> that is too far off.
>
> This other method involves measuring the gain of the device under test and
> then measuring the noise power output with the input terminated properly.
> The noise output is a combination of the DUT noise and the 'ambient' noise
> from the input termination, times the gain of the receiver. Working
> backwards you can then determine the DUT noise. As you can probably guess,
> the reason it doesn't work so good on small noise figures is that any errors
> in the measurement can easily outnumber the actual noise figure you are
> trying to measure! And I have actually had to deal with this problem. That
> is where half my gray hairs came from (the other half from being laid off).
>
> If you are measuring an entire receiver there are a few things you have to
> be careful with. The receiver must be a linear receiver (no FM, AM diode
> detector, etc.---basically just SSB). There should be a filter to pick just
> one sideband. Turn the AGC off. Make sure you measure the gain in the
> linear region, which also applies to a simple amplifier.
>
> If you have a DUT with a known noise figure, I think that this would be one
> way of calibrating a homebrew noise source.
>
> Jim
> N8EE
>
>

>

3107. Re: Noise Figure Measurements

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-15 00:28:52 UTC
From: Wes Stewart <n7ws_@_yahoo.com>
Message-ID: <v56um01c6mbjt614nclskm97khlrki2mf8@4ax.com>
Source record: 22681

On 14 Oct 2004 16:44:35 -0700, skavanagh72nospam@yahoo.ca (Steve
Kavanagh) wrote:

I haven't really been following this thread but if you are looking for
noise diodes and associated stuff, you should take a look at:

http://www.noisecom.com/

Seems to me that at one time they would calibrate a homebrew source
for a modest fee. That may have been a ham that worked there paving
the way; not sure.

|"Jim" <IHateSpam@NoSpam.net> wrote in message
news:<uZxbd.17$6Q1.11@fe61.usenetserver.com>...
|
|> This other method involves measuring the gain of the device under test and
|> then measuring the noise power output with the input terminated
|> properly
|
|> ....any errors
|> in the measurement can easily outnumber the actual noise figure
|
|Thanks for reminding me of that one, Jim. But I see your point about
|errors. For example, in measuring the gain one needs a standard. One
|of the few pieces of real test gear I have is a bolometer-type RF
|power meter which can measure about -13 dBm accurately. If the
|measurement bandwidth is 1 MHz (suitable for VHF, perhaps) then
|thermal noise is -114 dBm. So I need about 100 dB gain for a very low
|noise figure DUT. To measure that I might need five 20 dB attenuators
|as a standard, each with perhaps +/-0.5 dB accuracy if I am lucky...so
|there's +/-2.5 dB error (well, I suppose I could cross my fingers and
|RSS the numbers). Or I have a diode-type power meter that will
|measure lower power, which leads to issues of how the detector
|responds to noise. And then there's the problem of knowing the noise
|bandwidth precisely...
|
|> is where half my gray hairs came from (the other half from being laid off).
|
|I think about half of mine come from the latter factor too !
|
|> If you are measuring an entire receiver there are a few things you have to
|> be careful with. The receiver must be a linear receiver (no FM, AM diode
|> detector, etc.---basically just SSB). There should be a filter to pick just
|> one sideband. Turn the AGC off. Make sure you measure the gain in the
|> linear region, which also applies to a simple amplifier.

|
|Definitely. Though, with my method the input never gets more than 3
|dB above the receiver noise floor and in most cases a well designed
|receiver will have no AGC response at that level. But with a preamp
|in front it usually will activate the AGC, so AGC has to be switched
|off when comparing preamps - which of course is impossible to do in
|most ham rigs !
|>
|> If you have a DUT with a known noise figure, I think that this would be one
|> way of calibrating a homebrew noise source.
|
|Hence the interest in NF repeatability of MMIC amps, since they are
|hard to build wrong, are well matched over a wide bandwidth and don't
|require tuning for best noise figure. The known DUT can also be the
|standard itself (in association with a receiver of only roughly known
|NF) to avoid issues of errors in calibrating the noise source ENR.
|
|73,
|Steve VE3SMA

3108. Re: Rusty bolt effect

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-15 01:33:04 UTC
From: Terry <tsanford@nf.sympatico.ca>
Message-ID: <wMFbd.27535$hk6.1076681@news20.bellglobal.com>
Source record: 22671

"stoploss" <nospam@nospam.com> wrote in message
news:2t7h9mF1s39huU1@uni-berlin.de...
> Dissimilar metals can rectify, if not very conductive anymore, then you
get
> some harmonics, or generate IM.
>
Re rusty connections!
Apparently there was a situation in UK many years ago where an electric
heater with the old fashioned heating 'coils' was picking up radio waves.
Also a poor connection became a rectifying junction (something like an old
time crystal detector) and the metal of the heater became a sound box.
When some interference problems were being investigated the elderly lady who
owned the heater was asked why she hadn't mentioned or complained about it.
Her reply was that she enjoyed hearing the voices and the music that came
from the heater!
Cheers. Terry.

3109. Re: Noise Figure Measurements

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-15 02:24:10 UTC
From: bviel <sjouk@home.nl>
Message-ID: <ckncc6$tl9$1@news1.zwoll1.ov.home.nl>
Source record: 22678

> I am hoping that accuracies of +/- 1 to 2 dB might be achievable.
If you are satisfied with +/- 1 to 2 dB variation, the link I gave to
the Mar MMIC 35dB "calibrated" Noise generator should be
accurate enough.
That why I "forgot" the approximatly statement.

You can not compare noise power with a calibrated sine wave generator.
That's right, not directly.
You can calculate the RMS for a sine wave.
Also calculate the RMS for noise power, but its another formule.
Use the same impedances and frequency's.

If you know the amount of (milli) Ampere's through the noise diode and
know the impedance of the load, you can make power calculations like
we do with DC.
With the calculation method you don't need to have a calibrated noise head.
Someone else discussed the method, let me give the formule.
The formule is in Chris Bowick's book RF Circuit Design.
Its about Shot Noise. (Not thermal)
In^2 = 2qIdcB

In^2 = the mean square noise current
q = the electron charge (1.6 x 10e-19 coulombs)
Idc = the direct current in Ampere's
B = the bandwith in Hertz

Onces you have the mean square current, calculate the power in the load
resistor.
Did not made calculations with it, since I have the opportunity to measure
noise
right away. Will do it in future to check the formule.

The MMIC I used.... I was afraid there would come a question about it.
It's in a factory designed preamp of Japanese origin, has a forgotten
product
number, I mean National, not sure of that.
Searched hours for datasheets, because I was convinced the NF of the device
was less at 144Mhz, the manual stated approximatly 2dB 2Ghz.
EME use 144Mhz, with the knowledge of bipolar transistors that have an
increase of NF with frequency, 144Mhz would have a NF of about 1 - 1.5dB.
The manual said nothing about a lower NF at lower frequency's.
So bought it with the deal, not good money back.
Found the datasheets, the NF was 2.8dB flat from almost DC to 2Ghz.
From there comes the idea of flat NF respons of MMIC's.
I brought the device back to store and got money back. 150$.
More research learnt me that similar devices with less NF in order of 0.7dB

were avaiable for 20$, OK no box around it, no blinky leds.
I know only that the MMIC is obsolete today, forgot the type number.

A single mosfet, BF981 does 1.7dB at 100Mhz and cost about 1$.
I love homebrewing.
With that device you could also calibrate your noise generator.
It matched the input impedance of the 50 Ohm receiver.
Many EME amateurs use it in their preamps.
If they all use the same scheme it would be accurate within a variation
of say +/- 0.1dB ?

Since I can measure noise power, how to calibrate whitout a calibrated
noise head is not a hot item for me anymore.
Just practice.
Before that, I read several books, spent hours on the internet, collected
many
data.
Its only to share thoughts, nothing science, professional or years of
experience,
and yes I can be wrong.
The goal was maybe you can do something with it, for me, maybe there is a
clever
way to determine the NF without calibrated noise head, maybe even whitout
math.

The JT44 software program, I just finished the interface from receiver to
PC.
Details at the original PSK31 homepage.
Used a "Jensen" audio trafo, to prevent ground loops.
A lot to do... no practical data at this moment.

Have read Terry Ritter's stuff.
He said, no white noise at all. Just pink. See the graph's.
Read in some university books, noise is of pink behavior at the lowest
frequency's.
The graph showed the audio band.
White noise is flat (whitin 15 - 20Khz partitions) and at higher
frequency's, and random.
Whit respect to the measurements of course.

There is an increase of NF to higher frequency regions.
How came that MMIC to a flat respons ?

3110. Re: QSL.NET

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-15 03:38:16 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <ICHbd.21791$qU.9508@clgrps13>
Source record: 22694

Behold, clifto signalled from keyed 4-1000A filament:

> Gregg wrote:
>> Heh, I eliminated all but one or so spam a month by blocking everything
>> from *.cn, *.kr and the entire AOL netblock assignment ;-)
>
> Surprisingly, you don't have to block all of AOL to kill 99.999% of the
> spam coming from there. You stop nearly everything if you block the
> following:
>
> *.ipt.aol.com (e.g. ACB564F5.ipt.aol.com) *.proxy.aol.com (e.g.
> ie3.proxy.aol.com) rly-ip01.mx.aol.com rly-ip02.mx.aol.com
> rly-ip03.mx.aol.com
> rly-ip04.mx.aol.com
> rly-ip05.mx.aol.com
> rly-ip06.mx.aol.com
> *.wan.aol.com (e.g. pix-fw.wan.aol.com) *.webmail.aol.com
>
> Trust me; I'm legendary for my blocking list. I block all of UUNet,
> Savvis, MCI, Earthlink, Verio, RoadRunner; I block China, Korea, Japan,
> Taiwan, Bahamas, Russia, Dominican Republic, Mexico, Costa Rica, Hong
> Kong, Pakistan, Indonesia, Malaysia, Thailand, and most of Canada,
> Australia and New Zealand. (Among others. See
> <http://www.clifto.com/boycottlist.html>.) If I can get by with blocking
> only the above AOL servers, you can too.
>
> With about eight percent of the world blocked, I average five spams per
> week.

Major thanks!!

Oddly enough, my ISP blocks all of the US spammers, but no one else :-/

--
Gregg t3h g33k
"Ratings are for transistors....tubes have guidelines"
http://geek.scorpiorising.ca

3111. Re: Noise Figure Measurements

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-15 04:59:51 UTC
From: bviel <sjouk@home.nl>
Message-ID: <cknlg5sdb1@news4.zwoll1.ov.home.nl>
Source record: 22697

Sorry I was wrong about the noise figure at 100Mhz for the mosfet BF981.
It has to be 0.7dB instead of 1.7dB!

It can still better with the BF998, to get an impress of the scheme try the
following link http://lea.hamradio.si/~s53ww/4xbf998/4xbf998.htm

I think it can be reproducible whitin small variations.

3112. Re: Noise Figure Measurements

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-15 07:27:18 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <hPS0ONIWv3bBFACb@ifwtech.co.uk>
Source record: 22696

Wes Stewart wrote:
>
>I haven't really been following this thread but if you are looking for
>noise diodes and associated stuff, you should take a look at:
>
>http://www.noisecom.com/
>
>Seems to me that at one time they would calibrate a homebrew source for
>a modest fee. That may have been a ham that worked there paving the
>way; not sure.
>
In connection with the QST article by Bill Sabin, W0IYH, NoiseCom had a program of single-quantity sales to amateurs, and offered a low-cost calibration service. I'm not sure whether that program still operates, but some years ago NoiseCom were very helpful in supplying a free sample outside of the USA.

If I were building a noise source again, I wouldn't put NoiseCom to any trouble. Instead, I would use the base-emitter junction of a small-signal UHF/microwave transistor. It seems that just about any junction that goes into avalanche breakdown at a reverse voltage of 5-7V will give an Excess Noise Ratio of about 35dB. With a modern SMD package, the device parasitics will be lower than the wire-ended diodes that NC were offering, so the ENR will be flatter with frequency into the microwave region.

ENR flatness of the whole noise source depends on your construction. The other important factor is that the output impedance must not change significantly between the 'on' and 'off' states of the diode. To achieve both of these, the best technique is to build the noise source using SMD/microstrip technique including an attenuator of about 7dB made from 0805 SMD resistors; and then buy a high-class 20dB attenuator (N or SMA) which need not be expensive at a hamfest. This attenuator then becomes a permanent part of the noise source - not to be taken off and used for something else!

This level of attenuation will give you an ENR of about 5-6dB, which is what you need to measure typical modern low-noise amplifiers.

On the DC side, it is a very good idea to include a constant current source for long-term stability of ENR. Most devices will give a peak of ENR at a few mA, so you need to adjust the current to the top of this peak where the variability is least. (There is much more noise at currents of a few hundred uA, but you don't want to go there - the noise output there is far too sensitive to the DC current, temperature, color

of carpet, phase of moon etc.)

It is VERY important to design for the industry-standard power supply of +28V DC, so that your noise source is a simple plug-in replacement for any professional source... because that is how you're going to get your ENR calibration.

All of these ideas come from an article by DJ9BV in DUBUS magazine which described a very high-class noise source, good up to 10GHz. Mine uses simpler and much less precise construction, so the ENR begins to wobble above a few GHz due to resonances.

The DJ9BV articles (in both English and German) are on the DUBUS website, at:
http://www.marsport.demon.co.uk/archive.htm
Look around 1990, and there are a few follow-ups in later years.
(Unfortunately both archive sites are down right now, but do keep trying - these articles are *exactly* what you've been looking for!)

As for calibration, the best way is to take your noise head to a microwave meet where there is professional NF measuring equipment, and take a cal from the HP346A there. Alternatively, get to know someone - anywhere - who has access to these facilities, and can do it for you one lunchtime.

Other useful background information is in an Agilent App Note, at:
http://literature.agilent.com/litweb/pdf/5952-3706E.pdf

If you can still find a copy of 'The VHF/UHF/DX Book' (out of print) there's a lot of information in there too.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

3113. Re: Wes Hayward's "other" book...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-15 11:57:23 UTC
From: "Harold E. Johnson" <W4ZCB@mchsi.com>
Message-ID: <DWObd.243853$MQ5.40292@attbi_s52>
Source record: 22695

> Many time here we've heard plaudits for "Experimental Methods in RF
> Design" and no one to my recollection has derided it. But Hayward also
> wrote "Introduction to Radio Frequency Design" which never seems to
> get a mention. Does anyone have a copy of this other book and/or an
> opinion on it? I've been offered a copy and would value the Panel's
> view on it.
>
Absolutely! Both hard cover and soft. It ought to be in your library. Look at page 216 in the soft cover, my personal favorite. If you're too young for it, there was an earlier one that was an all time classic, "Solid State Design for the Radio Amateur" by DeMaw and Hayward. Called SSD by those who slept with it, the latest is often referred to as SSSD, "Son of Solid State Design".

W4ZCB

3114. A broken SSB Filter or an Off frequency Oscillator ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-15 15:55:41 UTC
From: chafik.philo@eudoramail.com
Message-ID: <cacbc942.0410150755.49768f5b@posting.google.com>
Source record: 22548

Hello
I have an IC-706 MKII, works fine on all modes except SSB:
On receive,I look at the audio spectrum analyser software, I have
found the following:
in LSB mode, most of the BF energy is located
between 1200 Hz and 2800 Hz approximativly.
in USB mode, most of the BF energy is located
between 200Hz and 1800 Hz approximatively
Fortunatly I can fix the problem by turning the IF shift knob about
-500 Hz in order
to have a normal audio quality.
(NB: the IF shift knob shifts the first oscillator and the BFO by
+-1200 Hz)
But the problem is getting worst while Transmitting since the other
station receive only the lower frequencies of my voice in USB mode,On
LSB mode
the other station receive only the Higher Frequencies of my voice
which give
a hard to copy modulation. the IF shift is not available on Transmit.
On other hand,the output power is only about 30 % on LSB and 70 % on
USB.

So, I dont know if the SSB filter is broken or that the some
oscillator is
off frequency by 500 Hz.
In the Service Manua, I did not found any way to play whith the
oscillator
or the BFO frequency.
Any Idea please.
73 CN8JV Chafik
Morocco

3115. Re: Noise Figure Measurements

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-15 17:34:35 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <xqagHTBroAcBFAqK@ifwtech.co.uk>
Source record: 22550

Steve Kavanagh wrote:
>"Ian White, G3SEK" <G3SEK@ifwtech.co.uk> wrote in message
>news:<hPS0ONIWv3bBFACb@ifwtech.co.uk>...
>
>> Instead, I would use the base-emitter junction of a
>> small-signal UHF/microwave transistor. It seems that just about any
>> junction that goes into avalanche breakdown at a reverse voltage of 5-7V
>> will give an Excess Noise Ratio of about 35dB. With a modern SMD
>> package, the device parasitics will be lower than the wire-ended diodes
>> that NC were offering, so the ENR will be flatter with frequency into
>> the microwave region.
>
>That's an interesting suggestion...but presumably the 35 dB ENR can't
>be counted upon to the level needed for measurements without
>calibration.

That's correct; it is only a design guide to the amount of attenuation
that will be needed to give an ENR that's in the right ballpark. But
then you need to know what the actual value *is* - and for that, you
still need a calibration.

>>
>> The DJ9BV articles (in both English and German) are on the DUBUS
>> website, at:
>> http://www.marsport.demon.co.uk/archive.htm
>> Look around 1990, and there are a few follow-ups in later years.
>> (Unfortunately both archive sites are down right now, but do keep trying
>> - these articles are *exactly* what you've been looking for!)
>
>Thanks, Ian. I found the DUBUS articles...though I haven't read them
>through yet. They look very interesting. Though perhaps not *exactly*
>what I was after, as they use a real microwave noise diode, whereas my
>thrust is more in the direction of what can be done with more common
>parts and without any need for calibration of individual noise
>standards.

My point was that you don't need a real microwave noise diode - any
small, cheap UHF/microwave bipolar transistor will give almost the same
performance up to several GHz.

>I recognize that this probably won't be possible in the
>microwave range but it seems likely (to me, anyway) that reasonable
>accuracy (not good enough for EME preamps !) can probably be attained
>up to VHF, even with these constraints.

You can optimize NF using an uncalibrated source, but with this kind of source you cannot can make worthwhile quantitative measurements without an external calibration.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

3116. Re: Rusty bolt effect

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-15 17:36:31 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <ckp201$l9e$1@newshost.mot.com>
Source record: 22549

"Terry" <tsanford@nf.sympatico.ca> wrote in message
news:wMFbd.27535$hk6.1076681@news20.bellglobal.com...
>
> "stoploss" <nospam@nospam.com> wrote in message
> news:2t7h9mF1s39huU1@uni-berlin.de...
> > Dissimilar metals can rectify, if not very conductive anymore, then you
> get
> > some harmonics, or generate IM.
> >
> Re rusty connections!
> Apparently there was a situation in UK many years ago where an electric
> heater with the old fashioned heating 'coils' was picking up radio waves.
> Also a poor connection became a rectifying junction (something like an old
> time crystal detector) and the metal of the heater became a sound box.
> When some interference problems were being investigated the elderly lady
who
> owned the heater was asked why she hadn't mentioned or complained about
it.
> Her reply was that she enjoyed hearing the voices and the music that came
> from the heater!
> Cheers. Terry.

Love it! AND... it's plausable, too.

--
Steve N, K,9;d, c. i My email has no u's.

3117. Re: Wes Hayward's "other" book...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-15 18:39:27 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10n06b24bevh53@corp.supernews.com>
Source record: 22552

I've had a copy since it was first published in 1982. It's intended to be more of an engineering textbook than the more cookbook-like _Experimental Methods. . _ and its predecessor _Solid State Design for the Radio Amateur_. (Although those books are much more than cookbooks.) Now published in a second edition by the ARRL, it's an excellent reference. It also contains insights into the fundamental workings of circuits that you'll find in few other texts. As just one of many examples, the discussion of oscillators presents some unique insights into the similarities between oscillator types and an understanding of the fundamentals requirements of oscillators.

I highly recommend it for anyone interested in understanding electronic circuits on a more basic level. It nicely complements his other books, and it's a bargain at the price.

Roy Lewallen, W7EL

Paul Burridge wrote:
> Hi guys,
>
> Many time here we've heard plaudits for "Experimental Methods in RF
> Design" and no one to my recollection has derided it. But Hayward also
> wrote "Introduction to Radio Frequency Design" which never seems to
> get a mention. Does anyone have a copy of this other book and/or an
> opinion on it? I've been offered a copy and would value the Panel's
> view on it.
>
> p.

3118. Re: What's this inductor doin'?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-15 19:23:24 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <ckp88dmea1@newshost.mot.com>
Source record: 22554
Cross-posted to: sci.electronics.basics,rec.radio.amateur.homebrew

"Steve Evans" <smevans@jif-lemon.co.mars> wrote in message
news:kmutm0pljptt1onk6a01urao5uam3cupo6@4ax.com...
> On Tue, 12 Oct 2004 17:10:41 -0500, "Steve Nosko"
> <suteuve.nosukowicuz@moutouroula.com> wrote:
>
> > This could be viewed as what we call a "clamper circuit" The AC
voltage
> >AT THE BASE will have its positive peak "clamped" or moved to +0.7 volts
and
> >the waveform will extend from there as negative as the waveform is tall.
> >
> >IF we had 5 volts peak (10 volts peak-to-peak) the cap left side, the
base
> >voltage will swing from +0.7 volts to -9.3 volts.
>
Steve Evans responds:
> Okay, upon further thought about this there's still something amiss in
> my understanding. I take what you say about the cap blocking out the
> DC component of the waveform to leave the AC largely unaffected.
> However, the term "clamping" AIUI means the diode lops off anything
> over about 0.7 volts from the input waveform (ie, it conducts it away
> to ground) so around half of it is lost (half wave rectification).

DAMN! And I sort of thought of this as I was writing it... STUPID ME! I
did what I (in my mind, usually) will normally criticize others for doing
soften here in an attempt to "help" others "fully understand". Namely,
adding some additional explanation or extreme detail which only serves to
further confuse the OP. Please excuse me.

While not necessary for understanding this circuit, I'll fill-in this bit
here. A "clamper" is a diode and cap circuit which will clamp a particular
point on a waveform to a specific voltage (kinda like being clamped in a
vice on the bench), but NOT change the wave's wiggling *shape*. Sometimes
this is needed. In the coupling circuit in question, it is the POSITIVE
PEAK of the signal that gets clamped to +0.7 volts. The wave's SHAPE is
un-changed, but the whole thing is shifted in its DC component.

What you are thinking of is called a "CLIPPER" because it CLIPS *off*
part of the waveform like barber's scissors.

Back to the actual subject.

In general, any waveform can have an AC component and a DC component.
The DC component only serves to "shift" the position of the signal up or
down; which can also be called a DC offset.

> Now

Continues a wiser Steve Evans:
> you state (and the spice progs agree) that what *actually* happens in
> this case is that the whole AC waveform gets shifted south into
> negative territory. It's still a full wave, but it's way down into
> the negative and only the highest peaks just creep above zero volts.
> Is this effect *solely* attributable to the steady build-up of
> negative charge on the cap's RHS?

YUP !

> I think what's really freaking me
> out here is the fact that the signal source is grounded on the neg.
> side and yet we have that same signal that after going through a cap
> can end up going fully negative *below* ground. It just seems like any
> such voltage beneath zero/ground potential is breaking the laws of
> physics. Ground should be the 'absolute zero' of the potentials in any
> circuit and here it is being violated. I need some help to get my
> thick head around the concept! :-(

Oooooo. BEWARE! GROUND IS NOT ABSOLUTE ! ! ! Nope, nope, nope. This is going to take some time to explain and more experience/study will be needed for you to really _get it_.

The bad news for you may be that ground, I must sadly inform you, is relative. There is no one, solid, never varying, absolute thing which is ground, except in our imaginations. Many hams believe there is, but there isn't.

That being said, let's start out simply and build.

Here is a very applicable analogy:

Voltage, also called "potential difference", is a lot like altitude -- height. We can talk about the height above the street level. We might consider the street level to be "ground". In Physics, moving some object to a higher level gives it the "Potential" to do damage if it falls on your head, so the "potential energy" of it is greater. Holding it three feet above your head gives it a certain potential, right? Voltage is just like this.

HOWEVER, what about standing on the roof of a building THEN moving the same object three feet above your head. You must agree that it has the SAME potential to do damage TO YOUR HEAD that it did in the first example, right? In this case, the roof of the building is our ground. So ground is relative and *we* get to pick it. It is usually a known point in our circuit and we use special symbols to show it. Note that this is why voltage is also is called potential *DIFFERENCE*.

Unfortunately, this analogy will fall apart when trying to use it for negative voltage, if we put this negative voltage "Below" our ground, but for the "relative" concept, I hope it worked.

Now I'll try *negative*.

Ground is a REFERNCE to which we relate all the other voltages in the circuit we happen to be talking about.

Lets put a screw into a wooden board and call it our ground. Work with me here, Steve. Connect a wire and run it over to several other screws in the board. They are all now our "ground".

Take your basic Ray-O-Vac flashlight battery. [[actually, for Ratch, this is a "cell", but common usage dies hard. A "battery" is a collection of cells usually connected in series to get a greater voltage]]]. Run a wire from the negative terminal of the battery...oops, cell, and connect it to our ground.

Now, with the negative lead (rhymes with seed) of our volt meter connected to our ground, measure the voltage on the Ray-O-Vac positive terminal with the positive lead of the voltmeter. We get + 1.5 volts.

In electronics (when we want to study some phenomenon carefully) we have a convention of ALWAYS putting the NEGATIVE lead of the voltmeter on our ground. That way we can easily see if the voltage it is positive or negative.

NOW... reverse the connection on the Ray-O-Vac. You will now measure a NEGATIVE 1.5 volts. So what's the way to interpret this.?

Voltage (potential difference) is also called Electro Motive Force because it is the "force" that "pushes" the electrons around the circuit to form Ratch's (and everyone's) current flow (sorry, Ratch, couldn't resist pulling your chain a bit in some friendly ribbing (:-).

When we reverse the battery/cell, we are now "pushing" in the other direction. It is still a potential difference, but negative.

In MY model (the one in my head), I visualize this as being "physically" below ground (and we often refer to it as being "below ground") in the sense that on the oscilloscope and Pspice display it is below on the graph.

If you REALLY want to make the altitude analogy work, you can imagine that gravity always "pulls" things toward the "ground" - but this is YOUR local ground. Then the negative potentials "pull you up".

END.hope this helps, Steve.

73

3119. Re: Wes Hayward's "other" book...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-15 21:36:12 UTC
From: Joel Kolstad <JKolstad71HatesSpam@Yahoo.Com>
Message-ID: <db2dnZ3-RsYg3-3cRVn-3Q@comcast.com>
Source record: 22555

"Paul Burridge" <pb@notthisbit.osiris1.co.uk> wrote in message
news:snbvm09cml9m64g3da8vesqcouu12broek@4ax.com...
> Many time here we've heard plaudits for "Experimental Methods in RF
> Design" and no one to my recollection has derided it. But Hayward also
> wrote "Introduction to Radio Frequency Design" which never seems to
> get a mention. Does anyone have a copy of this other book and/or an
> opinion on it? I've been offered a copy and would value the Panel's
> view on it.

It's great; definitely get a hold of a copy if you're interested in radio
design.

"Introduction to Radio Frequency Design" is somewhat unique in that the
level it's written at is sort of inbetween the "cookbook" approach and the
"highly theoretical, filled with math" approach. It's aimed at individuals
who have something of a formal background in engineering but who (1) don't
want to get bogged down in the math just to get some results and (2)
appreciate having the references to the hard core material so they can
investigate further if need be. This is unlike, say, Joe Carr who seems to
want to target a similar audience, but usually his 'reference' list is
non-existant or pretty generic; Wes will direct you right back to Zverev,
Matthei, Rhea, etc. if you're so inclined. (And whereas someone who only
reads Zverev is probably a LONG way from actually being able to build
anything outside of a SPICE simulator.)

Check out Wes's web page here: http://users.easystreet.com/w7zoi/books.html
... for information on all of his books. His books are also still quite
reasonably priced. (It's not out of line, but I'm still surprised that in
ten years the ARRL handbook has gone from $25 to $55... essentially from 'a
real bargin' to 'about the usual price' for such books.)

---Joel Kolstad

3120. Re: What's this inductor doin'?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-15 23:06:38 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <ckpl5uhov1@hercules.btinternet.com>
Source record: 22553
Cross-posted to: sci.electronics.basics,rec.radio.amateur.homebrew

> > Sure did, Steve! I ran it through a spice program and you're right in
> > every detail.
==========

What makes you think Spice is correct? Its only a buggy computer program.
Rubbish in - rubbish out!

3121. Top coupled resonators (more bandstop filters)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-16 00:47:58 UTC
From: Joel Kolstad <JKolstad71HatesSpam@Yahoo.Com>
Message-ID: <iZqdnZfWCfMb8u3cRVn-jQ@comcast.com>
Source record: 22551

I've been reading Wes Hayward's articles on coupled resonator filters, and I've simulated some of the results and they're what I'd expect. However, his examples are all bandpass filters... and I need a bandstop filter. Chanigng the parallel LC shunt resonators to series LC series resonators doesn't really work at all... although there's a perfect notch at the desired center frequency, the passband response is very low (tens of dB insertion loss) and recovers very, very slowly. It seemed as though I just needed a different size coupling capacitor, but playing around some doesn't improve the response significantly (for instance, if you take the example on page 85 of Introduction to Radio Frequency Design and change the parallel resonators to series resonators, even if you change the 7.2pF top coupling capacitor to something astronomical such as 1nF the response is still poor).

I've ordered a copy of Zverev's book (and Zverev w/Mathei), where the theory of all this comes from, but in the interim... can anyone suggest what the fundamental problem might be? Interesting, from looking at a few pages of Zverev on Amazon.Com he does have schematics of what I think I'm after (top capacitor coupled series resonators to create bandstop filters).

Thanks,
---Joel Kolstad

3122. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-16 01:08:52 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <tw_bd.37586$kz3.18770@fed1read02>
Source record: 22556
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur,uk.tech.broadcast

"Jock." <real_class_a@yahoo.co.uk> wrote in message
news:io9qm05n2qc49b5m00fka06nrbmnf4jffl@4ax.com...
> On Wed, 13 Oct 2004 03:07:11 -0700, "Ed Price" <edprice@cox.net> wrote:
>

>>And as far as I can remember, the French plan for Mideast
>>stability, protection of human rights and assurance of World oil supplies
>>just wasn't working. Uhh, they DID have a plan, didn't they?
>
> They may well have had, but I'd bet it didn't involve illegal, Nazi-style
> invasion and occupation of a sovereign country.

Then you agree that the French did learn something from their disaster in
Indochina. But not enough to avoid invading Egypt in 1956. Maybe the
post-grad course in Algeria was what turned them into peace-loving
post-colonialists.

Yes, the French have tried mightily to avoid foreign provocation. Why, take
Rwanda. As the genocide reached its peak in the early summer of 1994,
France's President Franï¿½ois Mitterand was reported to say, "In such
countries as this, genocide is not too important." IIRC, the French Foreign
Legion was really on a protracted African vacation in Zaire in 1978.

I cite these instances not to demean France (although I think the average
Frenchman deserves a better government than he usually gets), but to deflate
the Francophile pomposity you wear as a veneer over your hatred of America
in general and the present administration in particular.

Nothing I say will change your pickled attitude, so I'll grant you the
high-ground of a last idiotic reply.

Ed
wb6wsn

3123. Re: What's this inductor doin'?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-16 02:49:59 UTC
From: Ratch <Watchit@Comcast.net>
Message-ID: <r%%bd.266294$3l3.184754@attbi_s03>
Source record: 22558
Cross-posted to: sci.electronics.basics,rec.radio.amateur.homebrew

"Steve Nosko" <suteuve.nosukowicuz@moutouroula.com> wrote in message
news:ckmu1u$b60$1@newshost.mot.com...
> long post warning directed at Ratch...
>
> Hi there Ratch. Comments inserted below, but I am using terminology that
> has been used for a long time and is commonly accepted. If the OP has
> problems, I prefer him to pose (sp) the questions for clarification.
>
> Much of what you point out is right along the lines of the following
> examples.
>
> ROM stands for "Read Only Memory", right?
> RAM stands for "Random Access Memory", right?
>
> Yet ROM is also "Random Access". Therefore, ROM IS RAM. These are
> conventions which came about by an imperfect system of terminology.
Namely,
> whatever sticks gets used.

Yes, ROM can also be RAM. The two attributes are not mutually
exclusive.

>
> Example closer to this:
>
> Does a "river flow"? Do you know what this means? I think you do, yet by
> your comment a river is a flow of watter and "a river flows" would be
> "incorrect". We could only say that "Water Flows".

"A river flows" is a rather poetic description. If the Army Corps of
Engineers installed a flow meter in a river, would they label it "river
flow", "water flow", or "rate of flow?"

>
> While I appreciate youre desire to be correct, I do not believe the OP
would
> be confused by my use of very common terminilogy and if he/she is, then
the
> questions will come from them/he/she.

Probably not be confused, but one never knows.

>
> I would, however, ask that you comment on the concepts in question. Is it
> an explanation of *WHY* the coupling cap causes the Veb to go negative

> causing no conduction in the part?

The original question scrolled out of my message buffer. I only have
some of the replies, including yours.

>
>
>
> "Ratch" <Watchit@Comcast.net> wrote in message
> news:Hkhbd.120265$He1.113453@attbi_s01...
> > "Steve Nosko" <suteuve.nosukowicuz@moutouroula.com> wrote in message
> > news:ckhku1$e66$1@newshost.mot.com...
> > > > > >[...snippity snip...]
> > > > > > On the first positive peak, some current flows through the base
> > >
> > Current does not flow. Current IS flow.
> >
> I agree (in a manner of speaking) that changing this to:
>
> " some charge flows through the base emitter junction"
> is "correct", but I maintain that it is _just as
> understandable_.
>
> However, if I really wanted to use the word, current, how would you
word
> it? What does current do when it does its thing? Since "flow" is
included
> in the term "current", would I say:
> " On the first pulse, some current happens through base emitter junction."
?
> We don't talk that way.

You could say "some current exists through ...".

>
>
>
> > > The current is some quantity of electrons, right.
> > Er, no. Current is quantity of charge per unit time.
> >
> Certainly it is. However, the point is that the capacitor develops a
> potential difference across its two terminals because of the difference of
> charge between the two sides. I maintain that my use is common usage in
the
> field. I agree that I could have said:
> "The current is some quantity of electrons per time, right."
> I believe that either way, the following sentence would provide the
> necessary train of thought.

I can easily guess what you mean. Perhaps a better way is to say "The
current brings/deposits a quantity of electrons
..."

>
> > > Well, these electrons will start to "fill up" or charge the
> capacitor...
>
> Then you say:
> > A capacitor does not charge.
>
> It is completely common to refer to "charging a capacitor". You will
> probably be very surprised that we also refer to "charging an incuctor".
> This use of the word "charge" no longer refers to electron charge (in both
> cases), though that is where the term originated. This "charge" is a
> generic term meaning, perhaps, to "impart come analog quantity", or "fill
> with some desired substance" which can be electrons, magnetic field, or
> Halon. Just like we may say to "charge a battery" or "charge" one of
those
> glow-in-the-dark things by holding it near a strong light, then turning
off
> the light to watch it glow brightly. Although we commonly "load" a
spring,
> we could also use this convention (though unconventional for a spring)
and
> charge it in some situation. We "charge" fire extinguishers, but no
current
> flows there eigher and we "charge" gasoline at the pump. Still no
> electrons. It's common usage which may be imperfect, but accepted and
> understood as a result.

"Charge" is used in electronics as either a noun or a verb. I shun
using it as a verb in electronics because it can be
confusing. It is surprising how many nubes think that charging a battery or
a cap means filling it up with electrical charges
so they can be removed and used later. The word "energize" is more
descriptive. There is no problem in using "charge" with respect
to filling a gas tank or using a credit card. This is because we are not
adding/removing "charges" on these items. Furthermore, unlike a cap, we are
actually increaing/decreasing their net quantity of gas or credit.

>
> Going in to depth on a capacitor, you say...
> > The net change of charge is zero for a
> > capacitor going from zero volts to its breakdown voltage. That is
because
> > for each amount of charge stored on one plate, the same amount of charge
> > leaves the opposite plate. Now it takes energy to accumulate or deplete
> > like charges (electrons in this case) because they do not like to get
> close
> > together. This energy is stored in a electrostatic field proportional
to
> > the square of the voltage. Therefore a capacitor should be described as
> > being "energized", not "charged". Ratch
>
> While this is a detailed description of what may be some of the

> properties of electric charge and the capacitor, I did not believe that
> going down to this level of information helps understand how the Base bias
> goes negative in the target circuit. The operation of the capacitor is a
> lower level concept which I was hoping the OP had some understanding of.
If
> not, then more detail of capacitors would be evident from the OP's
> follow-up.

Your hope is probably justified. I was explaining why I thought a cap
should be thought of as energized.

>
> I'll do what I accuse you of doing and see how you respond.
> I have to give the statement "net change of charge is zero for a
> capacitor going from zero volts to its breakdown voltage" some analysis.
> First, I don't think capacitors "go" anywhere when we drive electrons
> onto one side. (do they sit in the back seat or front?)

Neither, they mill about smartly.

> Second, I could argue that there is a *change* of charge because there
> are more electrons on one of the capacitor foils than the other...but
that's
> another thread. I'm just trying to reenforce my point that our use of
> terminology is imperfect, but in some circles it is accepted.

I agree with both sentences above.

> Oh yes, I don't believe electrons "like" or "dislike" anything... I
> don't think they can. They do, however, appear to have a repelling force
> when brought near each other.

Yes, that is more technically correct.

>
>
> Whether or not the net charge changes, we certainly have rearranged
that
> charge such that there is one hell of a potential differennce between the
> capacitor plates. That is the point.

Indeed, the charge is imbalanced.

>
> Gee, do modern capacitors have "plates" any more... so...what do I call
> these things, eh?

I believe they do, whether they are folded, interleaved, rolled, or
bifuracted, they can still be analyzed as a sandwitch
with a dielectric filling.

>
>
>

> We "energize" circuits and light bulbs. Does that mean that there must be
> some stored charge differential, as in a capacitor, in order for us to use
> that term?

No, the word energize means to imbue energy to something. We can create
a electrostaic field in a capacitor, or
a electromagnetic field in a coil, or dissipate heat and maybe light by
creating a current through a resistor. Either way the
circuit is energized.

>
>
> ...Didn't see any more of your comments...
>
> I maintain that it is common and acceptable for:
> current to flow.
> Capacitors to charge and discharge.

Yes, and many folks think that R=V/I is Ohm's law, which it is not.
Ohm's law refers to the resistive linearity of a
material, not the resistance formula. But everyone first thinks of that
formula when you say "Ohm's law".

>
> By the way, even though *you* also use some of this imperfect terminology,
I
> know precisely what you **mean** when you say:
> "for a capacitor going from zero volts to its breakdown voltage" -
don't
> go anywhere

I should have been more descriptive and said "its voltage value goes
from ..."

> "charge stored on one plate" - no plates in many a common cap these

No plates or their equivalent? What then?

> days
> "they do not like to get close together" - what other emotions do
> electrons have...

Yes, I should have said they repel each other. I was giving the
electrons anthropic properties they did not deserve.

>
> The point of the thread is:
> If I replace all of my terms with yours, will the explanation then tell
the
> OP why the inductor is needed ??

Only the OP can answer that one.

One of worse descriptive phrases comes from NASA when they refer to
their astronauts as "space walking." Everyone
knows what they mean, and all can see that they are floating or drifting,
not walking. I always wanted to ask NASA what would
happen if their tethers separated. Would the astros walk away, or float
away from their ship? I liked it better when they
referred to that activity as EVA. Walking in space to me means walking on a
structure in space wearing sticky boots. Ratch

>
>
> 73,
> --
> Steve N, K,9;d, c. i My email has no u's.
>
>

3124. Re: Wes Hayward's "other" book...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-16 03:43:13 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10n166e4qu6j751@corp.supernews.com>
Source record: 22557

Paul Burridge wrote:

> Hi guys,
>
> Many time here we've heard plaudits for "Experimental Methods in RF
> Design" and no one to my recollection has derided it. But Hayward also
> wrote "Introduction to Radio Frequency Design" which never seems to
> get a mention. Does anyone have a copy of this other book and/or an
> opinion on it? I've been offered a copy and would value the Panel's
> view on it.
>
> p.

Buy it, it's worth it.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

3125. Large capacitor question

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-16 08:58:51 UTC
From: Prune <bobysgotguns@yahoo.com>
Message-ID: <Xns95841426C36E8Gormenghast@64.59.144.76>
Source record: 22559

I got several used tin can capacitors, 40 uF @ 3 kV, about 8 pounds each, probably film in oil. With such capacitors, is there any potential problem if I do not keep them upright during operation?? Normally I would assume that wouldn't be an issue, but I've never used such heavy caps before, and especially as they are old with a few small dents on the casings, I'm worried whether stuff may shift inside if I work them horiziontally.

3126. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-16 10:37:22 UTC
From: "Jock." <real_class_a@yahoo.co.uk>
Message-ID: <ebu1n09g4m8otaum546qflqt8flunh9mfh@4ax.com>
Source record: 22560
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur,uk.tech.broadcast

On Fri, 15 Oct 2004 18:08:52 -0700, "Ed Price" <edprice@cox.net> wrote:

>Then you agree that the French did learn something from their disaster in
>Indochina.

Not as much as your disaster in Indo-China. At least they learned.

>Nothing I say will change your pickled attitude, so I'll grant you the
>high-ground of a last idiotic reply.

No it won't. Now piss off!

--

Jock.

It's the Afghan National Army that went into Najaf
and did the work there.

George W. Bush

3127. Re: Large capacitor question

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-16 13:01:08 UTC
From: John Walton <jdwalton@comcast.net>
Message-ID: <u-KdnSCeaPPvh-zcRVn-1A@comcast.com>
Source record: 22561

If you're General Electric you punch them full of holes and throw them in the Hudson River north of Poughkeepsie.

"Prune" <bobysgotguns@yahoo.com> wrote in message news:Xns95841426C36E8Gormenghast@64.59.144.76...
> I got several used tin can capacitors, 40 uF @ 3 kV, about 8 pounds each,
> probably film in oil. With such capacitors, is there any potential problem
> if I do not keep them upright during operation?? Normally I would assume
> that wouldn't be an issue, but I've never used such heavy caps before, and
> especially as they are old with a few small dents on the casings, I'm
> worried whether stuff may shift inside if I work them horiziontally.

3128. Re: What's this inductor doin'?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-16 14:13:22 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <21b2n01ml74qo2p46dodhe2eo42bihvkrn@4ax.com>
Source record: 22562
Cross-posted to: sci.electronics.basics,rec.radio.amateur.homebrew

On Fri, 15 Oct 2004 23:06:38 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>> > Sure did, Steve! I ran it through a spice program and you're right in
>> > every detail.
>=======================
>
>What makes you think Spice is correct? Its only a buggy computer program.
>Rubbish in - rubbish out!

Because it agreed exactly with Steve's prediction. I think therefore
I'm entitled to rely on it in this instance at least.

--

"What is now proved was once only imagin'd." - William Blake, 1793.

3129. WTB : Beam Traps

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-16 14:14:41 UTC
From: NA1VT <na1vt@adelphia.net>
Message-ID: <0uqdnYmxa4ldsezcRVn-qA@adelphia.com>
Source record: 22563
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

Looking to buy a set of traps for a Cushcraft A-3WS 12 &17 M beam. Anyone have a damaged one with good traps?

Thanks for looking.

Contact John-NA1VT at arrl dot net

3130. Re: Wes Hayward's "other" book...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-16 14:31:40 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <7vb2n0tu2vh0qbsk623npeuo4jn9tmvgk9@4ax.com>
Source record: 22564

On Fri, 15 Oct 2004 11:39:27 -0700, Roy Lewallen <w7el@eznec.com>
wrote:

>I've had a copy since it was first published in 1982. It's intended to
>be more of an engineering textbook than the more cookbook-like
>_Experimental Methods. . _ and its predecessor _Solid State Design for
>the Radio Amateur_. (Although those books are much more than
>cookbooks.) Now published in a second edition by the ARRL, it's an
>excellent reference. It also contains insights into the fundamental
>workings of circuits that you'll find in few other texts. As just one of
>many examples, the discussion of oscillators presents some unique
>insights into the similarities between oscillator types and an
>understanding of the fundamentals requirements of oscillators.
>
>I highly recommend it for anyone interested in understanding electronic
>circuits on a more basic level. It nicely complements his other books,
>and it's a bargain at the price.

Oh, blast! You were doing so well there for a while, Roy. Now you've
gone and spoilt it all by using that word "basic." I was hoping for
something at least "intermediate" and I don't really see how "basic"
and "RF design" sit easily together in a single description. Please
tell me it's useful for more advanced stuff too!
--

"What is now proved was once only imagin'd." - William Blake, 1793.

3131. Re: What's this inductor doin'?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-16 14:37:08 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <egc2n05d127913ivvah5ec0d9glp1rlua1@4ax.com>
Source record: 22565
Cross-posted to: sci.electronics.basics,rec.radio.amateur.homebrew

On Fri, 15 Oct 2004 23:06:38 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>What makes you think Spice is correct? Its only a buggy computer program.
>Rubbish in - rubbish out!

BTW, Reg. Is there a program on your site that can handle stripline
calculations for UHF circuit board inductors?
--

"What is now proved was once only imagin'd." - William Blake, 1793.

3132. Re: Wes Hayward's "other" book...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-16 14:59:17 UTC
From: Fred Bartoli <fred._canxxxel_this_bartoli@RemoveThatAlso_free.fr_AndThisToo>
Message-ID: <417136e8$0$29544$626a14ce@news.free.fr>
Source record: 22566

"Paul Burridge" <pb@notthisbit.osiris1.co.uk> a crit dans le message de
news:7vb2n0tu2vh0qbsk623npeuo4jn9tmvgk9@4ax.com...
> On Fri, 15 Oct 2004 11:39:27 -0700, Roy Lewallen <w7el@eznec.com>
> wrote:
>
> >I've had a copy since it was first published in 1982. It's intended to
> >be more of an engineering textbook than the more cookbook-like
> >_Experimental Methods. . _ and its predecessor _Solid State Design for
> >the Radio Amateur_. (Although those books are much more than
> >cookbooks.) Now published in a second edition by the ARRL, it's an
> >excellent reference. It also contains insights into the fundamental
> >workings of circuits that you'll find in few other texts. As just one of
> >many examples, the discussion of oscillators presents some unique
> >insights into the similarities between oscillator types and an
> >understanding of the fundamentals requirements of oscillators.
> >
> >I highly recommend it for anyone interested in understanding electronic
> >circuits on a more basic level. It nicely complements his other books,
> >and it's a bargain at the price.
>
> Oh, blast! You were doing so well there for a while, Roy. Now you've
> gone and spoilt it all by using that word "basic." I was hoping for
> something at least "intermediate" and I don't really see how "basic"
> and "RF design" sit easily together in a single description. Please
> tell me it's useful for more advanced stuff too!

Maybe is it that someone's basic level is someone else' intermediate level ?
;-)

--
Thanks,
Fred.

3133. Re: Wes Hayward's "other" book...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-16 16:31:09 UTC
From: xpyttl <xpyttl_NOSPAM@earthling.net>
Message-ID: <10n2j6ce8iill61@corp.supernews.com>
Source record: 22567

"Paul Burridge" <pb@notthisbit.osiris1.co.uk> wrote in message
news:7vb2n0tu2vh0qbsk623npeuo4jn9tmvgk9@4ax.com...

> Oh, blast! You were doing so well there for a while, Roy. Now you've
> gone and spoilt it all by using that word "basic." I was hoping for

You guys must be reading a different IRFD than me, or maybe I'm just dumber
than I thought. That book has more math in it than my college EE text. OK,
admittedly the math isn't as weird, but I wouldn't call it "basic".

..

3134. Re: What's this inductor doin'?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-16 16:40:54 UTC
From: Steve Evans <smevans@jif-lemon.co.mars>
Message-ID: <s4k2n0p8ns2argai8musela3n8g48f4kg2@4ax.com>
Source record: 22568
Cross-posted to: sci.electronics.basics,rec.radio.amateur.homebrew

On Fri, 15 Oct 2004 23:06:38 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>> > Sure did, Steve! I ran it through a spice program and you're right in
>> > every detail.
>=======================
>
>What makes you think Spice is correct? Its only a buggy computer program.
>Rubbish in - rubbish out!

Buggy?? I'm using Multisim (formerly EWB) which has been around longer
than most spices and therefore has probably less bugs than the rest
put together!

--

Fat, sugar, salt, beer: the four essentials for a healthy diet.

3135. FA: B&K 707 Tube Tester

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-16 17:13:37 UTC
From: tw@emailaccount.com
Message-ID: <d7bc9941.0410160913.5caa12fb@posting.google.com>
Source record: 22569
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

Dynamic mutual conductance model with manual. Fast and easy to use;
tests sweep tubes. Refurbished, no reserve:

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3845694295

3136. Re: Large capacitor question

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-16 17:29:58 UTC
From: Bob <balbert@access1.net>
Message-ID: <NdydndZDdsqZxuzcRVn-ig@hawaiian.net>
Source record: 22571

If there is any need to orient them in a particular way it would so state on the can. Usually they will operate in any position.

73, Bob

3137. Re: A broken SSB Filter or an Off frequency Oscillator ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-16 17:31:51 UTC
From: Bob <balbert@access1.net>
Message-ID: <NdydndFDdsqYxuzcRVn-ig@hawaiian.net>
Source record: 22570

It seems to me that the unit simply needs alignment. Get a service manual and go through the alignment step by step. You will need a frequency counter, oscilloscope, and some other gear as listed in the manual. Otherwise, find a friend with this stuff and that should fix it. I don't think the filter is the problem. The oscillators have to be set.

73, Bob

3138. Re: What's this inductor doin'?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-16 18:15:32 UTC
From: Steve Evans <smevans@jif-lemon.co.mars>
Message-ID: <1kn2n0pud25pa7j9f32drfgekoi7u3pu9m@4ax.com>
Source record: 22572
Cross-posted to: sci.electronics.basics,rec.radio.amateur.homebrew

On Fri, 15 Oct 2004 14:23:24 -0500, "Steve Nosko"
<suteuve.nosukowicuz@moutouroula.com> wrote:

>While not necessary for understanding this circuit, I'll fill-in this bit
>here. A "clamper" is a diode and cap circuit which will clamp a particular
>point on a waveform to a specific voltage (kinda like being clamped in a
>vice on the bench), but NOT change the wave's wiggling *shape*. Sometimes
>this is needed. In the coupling circuit in question, it is the POSITIVE
>PEAK of the signal that gets clamped to +0.7 volts. The wave's SHAPE is
>un-changed, but the whole thing is shifted in its DC component.
>
> What you are thinking of is called a "CLIPPER" because it CLIPS *off*
>part of the waveform like barber's scissors.

Gotcha, Steve. I won't forget that distinction in a hurrq! It\s
amazing after nearly 2 years of studying this subject that I didn't
tumble the true meahing of clamping. Duh!

>> you state (and the spice progs agree) that what *actually* happens in
>> this case is that the whole AC waveform gets shifted south into
>> negative territory. It's still a full wave, but it's way down into
>> the negative and only the highest peaks just creep above zero volts.
>> Is this effect *solely* attributable to the steady build-up of
>> negative charge on the cap's RHS?
>
>
>
> YUP !
>
>
>
>
>> I think what's really freaking me
>> out here is the fact that the signal source is grounded on the neg.
>> side and yet we have that same signal that after going through a cap
>> can end up going fully negative *below* ground. It just seems like any
>> such voltage beneath zero/ground potential is breaking the laws of
>> physics. Ground should be the 'absolute zero' of the potentials in any
>> circuit and here it is being violated. I need some help to get my
>> thick head around the concept! :-(
>
>
>
>Oooooo. BEWARE! GROUND IS NOT ABSOLUTE ! ! ! Nope, nope, nope. This is

>going to take some time to explain and more experience/study will be needed
>for you to really _get it_.
>
>The bad news for you may be that ground, I must sadly inform you, is
>relative. There is no one, solid, never varying, absolute thing which is
>ground, except in our imaginations. Many hams believe there is, but there
>isn't.
>
>
>
>That being said, let's start out simply and build.
>
>
>
>Here is a very applicable analogy:
>
>Voltage, also called "potential difference", is a lot like altitude --
>height. We can talk about the height above the street level. We might
>consider the street level to be "ground". In Physics, moving some object to
>a higher level gives it the "Potential" to do damage if it falls on your
>head, so the "potential energy" of it is greater. Holding it three feet
>above your head gives it a certain potential, right? Voltage is just like
>this.
>
>HOWEVER, what about standing on the roof of a building THEN moving the same
>object three feet above your head. You must agree that it has the SAME
>potential to do damage TO YOUR HEAD that it did in the first example, right?
>In this case, the roof of the building is our ground. So ground is relative
>and *we* get to pick it. It is usually a known point in our circuit and we
>use special symbols to show it. Note that this is why voltage is also is
>called potential *DIFFERENCE*.
>
>Unfortunately, this analogy will fall apart when trying to use it for
>negative voltage, if we put this negative voltage "Below" our ground, but
>for the "relative" concept, I hope it worked.
>
>
>
>Now I'll try *negative*.
>

Okay, Steve, I've snipped your explanation about negative voltages as
that wasn't quite what I was getting at. I'm familiar with the
analogos you used (which I'm sure will help ohters in future via
Google). I've done quite a lot of experimentng with opamps using split
supplies, hence I don't have a problem envisaging below ground
voltages where the supply is say +15V - 0 -15V. The problem I was
having was with below ground voltages in a circuit with only one
ground and one V+ supply! I'm gojng to have a good think about this
before posting back for further clarification. I'm not completly sure

that its all down to the cap alone. Mebe the diode has an effect on t
producing his sub-ground signal as well?

Steve

--

Fat, sugar, salt, beer: the four essentials for a healthy diet.

3139. Re: Wes Hayward's "other" book...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-16 18:36:48 UTC
From: Rex <me@hutmail.invalid>
Message-ID: <99p2n0pi3kk3v292qehkckfun5rfiomr87@4ax.com>
Source record: 22573

On Sat, 16 Oct 2004 15:31:40 +0100, Paul Burridge
<pb@notthisbit.osiris1.co.uk> wrote:

>On Fri, 15 Oct 2004 11:39:27 -0700, Roy Lewallen <w7el@eznec.com>
>wrote:
>
>>I've had a copy since it was first published in 1982. It's intended to
>>be more of an engineering textbook than the more cookbook-like
>>_Experimental Methods. . _ and its predecessor _Solid State Design for
>>the Radio Amateur_. (Although those books are much more than
>>cookbooks.) Now published in a second edition by the ARRL, it's an
>>excellent reference. It also contains insights into the fundamental
>>workings of circuits that you'll find in few other texts. As just one of
>>many examples, the discussion of oscillators presents some unique
>>insights into the similarities between oscillator types and an
>>understanding of the fundamentals requirements of oscillators.
>>
>>I highly recommend it for anyone interested in understanding electronic
>>circuits on a more basic level. It nicely complements his other books,
>>and it's a bargain at the price.
>
>Oh, blast! You were doing so well there for a while, Roy. Now you've
>gone and spoilt it all by using that word "basic." I was hoping for
>something at least "intermediate" and I don't really see how "basic"
>and "RF design" sit easily together in a single description. Please
>tell me it's useful for more advanced stuff too!

Paul, maybe you should stay away from it because apparently you can't
read.

At the beginning, Roy said, "It's intended to be more of an engineering
textbook than the more cookbook-like _Experimental Methods. . _"

At the end he said, "I highly recommend it for anyone interested in
understanding electronic circuits on a more basic level." This is
apparently where you got confused. Oh, and he never specifically
mentioned "RF design".

English can be tricky. In the context of the rest of the message, I take
Roy's, "understanding electronic circuits on a more basic level," to
mean at the level of the basic principles that define the circuit's
functions, not less than advanced. As Roy and others have said it is
MORE rigorous and mathematical than the other books.

If you were trying to make a joke, you should have ended with a happy
face.

3140. Re: Noise Figure Measurements

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-16 19:26:28 UTC
From: Jim <IHateSpam@NoSpam.net>
Message-ID: <sBecd.137$sR2.113@fe61.usenetserver.com>
Source record: 22574

"Stewart Bryant" <stbryant@cisco.com> wrote in message
news:1097795826.35817@sj-nntpcache-3...
> Can you measure the noise power of the noise source by comparing
> the output (through the RX) with the power from a signal
> generator (again through the RX) of known output power?
> Presumably using some form of averaging of multiple readings
> across the RX passband.
>
> - Stewart G3YSX
>
> Steve Kavanagh wrote:
>
> > Some assorted comments and follow-on questions on your suggestions:
> >
> > - (from bviel) The Elecraft noise generator is not a calibrated unit.
> > They give a typical ENR but specifically state that it varies from
> > unit to unit. Their low-level signal generator is calibrated (though
> > perhaps not quite accurately enough) but this would bring in the issue
> > of measurement errors between noise and sine-wave powers. And it only
> > works at one frequency.
> >
> > - (from bviel) Which MMIC did you find had flat noise figure to 1 GHz
> > ? My experience is that MMIC NF specs are usually at a frequency
> > above the flat part of the spectrum, as this is more indicative of the
> > high frequency performance. Are there any with noise figure also
> > specified, or at least well characterized, at low frequencies (within
> > the spectral region where the NF is flat) ? But the other question
> > with MMICs is the unit-to-unit variation in noise figure which I don't
> > believe is ever specified. If all units of a given part have, say,
> > between 2 and 3 dB noise figure then a MMIC amp could be a fairly good
> > standard for amateur use, but if the variation is from 1 to 4 dB then
> > the usefulness is limited, in my opinion.
> >
> > - (from bviel) I don't have the JT-44 software but I did look at the
> > (full) manual. On page 35 it describes the "Measure Sub-Mode" which
> > allows noise levels to be compared. However it does not appear to
> > support absolute noise figure measurements (unless you use a
> > calibrated noise source). Is there more in the online help ?
> >
> > - (from Mike Andrews) Terry Ritter's stuff seems mostly concerned with
> > the degree of randomness rather than absolute output power, which
> > makes sense as he is concerned with cryptography. But I did find,
> > elsewhere on his web page,
> >

> > http://www.ciphersbyritter.com/REALRAND/92102201.HTM
> >
> > a low frequency noise generator based on a diode source followed by a
> > limiting amp. I imagine this concept could be extended to HF by
> > suitable choice of amplifier. I am not sure of the significance of
> > the very different output waveform (pulses of random width and fixed
> > amplitude) compared to the true random (Gaussian) noise from the diode
> > itself. I am not sure if I am willing to tackle the math needed to
> > understand this or to calculate the ENR - can anyone help ?
> >
> > 73,
> > Steve VE3SMA
>

The answer is: Sort of.

Another post I made mentions that if you know the gain of your DUT you can calculate the noise figure by measuring the noise power output with the input terminated properly. Likewise, I think you could determine the ENR of a noise source by the same method.

Someone else mentioned calculating the noise power of the ENR from the current used. This would give the total noise power, but what is needed is the noise power at a very narrow band of frequencies. If you are trying to measure a receiver, the receiver determines the bandwidth, but with an LNA you need a narrow band detector.

When I was doing the afore mentioned software, I used a FFT power spectrum and made four measurements (DUT with noise source, DUT with out noise source, test receiver with noise source, test receiver without noise source). The FFT provided the narrow band filtering.

Of course, watch out for double sideband fold over in the mixer!

Jim
N8EE

3141. Re: Wes Hayward's "other" book...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-16 19:39:52 UTC
From: et472@FreeNet.Carleton.CA
Message-ID: <ckrte8$2sl$1@freenet9.carleton.ca>
Source record: 22575

Rex (me@hutmail.invalid) writes:
>
> At the beginning, Roy said, "It's intended to be more of an engineering
> textbook than the more cookbook-like _Experimental Methods. . _"
>
And of course, it was published as a text book. It came out in 1982 from
a text book publisher, Prentice Hall. I seem to recall it carrying a
text book price. I think the only reason many of us took note of it
was because it was by Wes Hayward. I seem to recall it getting coverage
in the ham magazines at the time. I'm not so sure ARRL would have published
a second printing but for the fact that Wes Hayward is well known to hams,
and has had a book or two published by the ARRL.

It covers what it does well, and yes it is a much more involved explanation
than ham books. But it's field is quite limited. It's not so practical,
You can get very detailed explanation of the Colpitts oscillator, but
little about oscillators beyond that.

It's not cutting edge. It wasn't back in 1982, it was supposed to give
a grounding so one could take up other books and get the latest, and it's not
now; I gather there was very minimal changes in the ARRL printing.

This book came up in the other newsgroup in the context of someone wanting
to design a wideband VHF amplifier for his tv set. And no, he was not
advanced in his technical knowledge. It was indeed a lousy suggestion for
his purpose, because not only would he be better off with a cookbook type
book, but Intro to RF Design isn't about a lot of specifics.

On the other hand, the ARRL priting came with a flopppy disk of some basic
programs for designing circuits. I've really only glanced at them, but they
are a bonus for those buying the book.

Michael VE2BVW

3142. Re: Wes Hayward's "other" book...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-16 20:36:59 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10n31jea9q9p8fb@corp.supernews.com>
Source record: 22576

That was a poor choice of word on my part -- I apologize. I meant "fundamental". Wes explains how things work on a fundamental level. But it isn't a textbook of pure basic theory. It relates working circuits to their fundamental roots.

I took an expensive advanced microwave design short course some years ago. The instructor was a person who'd worked in the field for many years. With disturbing frequency, he would come out with statements I knew to be false and, after some questioning, I discovered that he didn't have any idea of the fundamental (or basic) criteria for oscillation. He'd been designing oscillators for years without really knowing what made them oscillate. This might have been a case of someone who read the "intermediate" texts without ever reading the "fundamental" ones.

This isn't to say that people can't design useful things without fully understanding what they're doing -- I'm convinced that a majority of useful things are created this way. But you can do an awfully lot more if you have a real fundamental understanding of how things work. The most truly creative and innovative engineers I've known have this understanding -- and an intense curiosity about things they don't know.

I guarantee there's plenty of "intermediate" and "advanced" level information in that book, and even without knowing anything of your background, I also guarantee there's plenty of "fundamental" knowledge you missed somewhere along the line and will pick up from this book. If I'm wrong, let me know and I'll buy the book from you. I can always use another copy.

Roy Lewallen, W7EL

Paul Burridge wrote:
> On Fri, 15 Oct 2004 11:39:27 -0700, Roy Lewallen <w7el@eznec.com>
> wrote:
>>. . .
>>I highly recommend it for anyone interested in understanding electronic
>>circuits on a more basic level. It nicely complements his other books,
>>and it's a bargain at the price.
>
>
> Oh, blast! You were doing so well there for a while, Roy. Now you've
> gone and spoilt it all by using that word "basic." I was hoping for
> something at least "intermediate" and I don't really see how "basic"
> and "RF design" sit easily together in a single description. Please
> tell me it's useful for more advanced stuff too!

3143. Re: Wes Hayward's "other" book...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-16 21:07:19 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <7333n05frcm459fv7f8l264kme1gml23o6@4ax.com>
Source record: 22577

On Sat, 16 Oct 2004 13:36:59 -0700, Roy Lewallen <w7el@eznec.com>
wrote:

>
>I took an expensive advanced microwave design short course some years
>ago. The instructor was a person who'd worked in the field for many
>years. With disturbing frequency, he would come out with statements I
>knew to be false and, after some questioning, I discovered that he
>didn't have any idea of the fundamental (or basic) criteria for
>oscillation. He'd been designing oscillators for years without really
>knowing what made them oscillate. This might have been a case of someone
>who read the "intermediate" texts without ever reading the "fundamental"
>ones.
>
>This isn't to say that people can't design useful things without fully
>understanding what they're doing -- I'm convinced that a majority of
>useful things are created this way. But you can do an awfully lot more
>if you have a real fundamental understanding of how things work. The
>most truly creative and innovative engineers I've known have this
>understanding -- and an intense curiosity about things they don't know.
>
well, said! But isn't this the very frequent feeling one gets from
reading amateur radio magazines? The constructors (I wouldn't use the
word "designer") should have constructed and tested at least 10 equal
constructions, or have similar experience before publishing an idea,
which may later turn out that might not be repeatable

Too often constructions are published when it is a hope rather than
experience that it is a good idea. For somebody it is more important
to use wellknown devices than trying to propose something else

73, Jan-Martin

J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

3144. Re: Noise Figure Measurements

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-16 21:26:40 UTC
From: Mike Monett <no@spam.com>
Message-ID: <41719210.5583@spam.com>
Source record: 22579

Mike Andrews wrote:

[...]

> You might find Terry Ritter's work on getting a good noise source to
> be of at least a bit (ahem!) of interest:
>
> <http://www.ciphersbyritter.com/NEWS5/FMRNG.HTM>
>
> There are lots of other hits in Google for a search on
> 'calibrated "pseudo random" noise'
> (without the outer single quotes).
>
> It's hard to generate good noise, and at least as hard to find it.
>
> --
> Mike Andrews
> mikea@mikea.ath.cx
> Tired old sysadmin

Also take a look at Terry's analysis of various other noise sources:

http://www.ciphersbyritter.com/NOISE/NOISRC.HTM

Good noise is hard to find:)

Mike Monett

3145. Re: Wes Hayward's "other" book...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-16 21:31:07 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <aj43n01mehidkqddo7k189ngnfllvvhjv9@4ax.com>
Source record: 22578

On Sat, 16 Oct 2004 13:36:59 -0700, Roy Lewallen <w7el@eznec.com>
wrote:

[snip]

Thanks for the clarification, Roy. I'm sure your kind offer won't be
necessary, though, as it now sounds like pretty much the kind of
source I'm looking for. The companion diskette is included, but I
doubt there will be anything on it that Reg hasn't already covered in
his amazing collection of programs for radio and ariel design.

p.
--

"What is now proved was once only imagin'd." - William Blake, 1793.

3146. Re: A broken SSB Filter or an Off frequency Oscillator ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-16 21:52:26 UTC
From: fmmck@aol.com
Message-ID: <20041016175226.05268.00001583@mb-m23.aol.com>
Source record: 22580

<< So, I dont know if the SSB filter is broken or that the some
oscillator is
off frequency by 500 Hz.
In the Service Manua, I did not found any way to play whith the
oscillator
or the BFO frequency. >>

Chafik-

I have the older IC-706, which is most likely uses the same IF scheme as yours. My first impression is that the most likely problem is a bad IF Filter.

While older equipment had separately adjustable USB, LSB and CW crystals that were warped by the IF-Shift control, the IC-706 apparently gets its IF converter frequency from a synthesizer that is controlled by the CPU. I don't know how it is warped. It might be done digitally. If it is done by warping the master oscillator, there is a possibility it is misadjusted, except I never found such an IF adjustment procedure in the service manual.

If you happened to have one of the optional filters (or could borrow one), you could see whether the problem follows the filter or the IF-Shift.

73, Fred, K4DII

3147. Re: Large capacitor question

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-16 21:59:48 UTC
From: fmmck@aol.com
Message-ID: <20041016175948.05268.00001584@mb-m23.aol.com>
Source record: 22581

<< I got several used tin can capacitors, 40 uF @ 3 kV, about 8 pounds each, probably film in oil. With such capacitors, is there any potential problem if I do not keep them upright during operation?? >>

Prune-

They will most likely operate in any orientation. On the other hand, I've had several different oil-filled capacitors leak, so it is best to orient them with the seals up.

73, Fred, K4DII

3148. Re: Wes Hayward's "other" book...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-16 22:17:47 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10n37geequo48c2@corp.supernews.com>
Source record: 22582

Few people appreciate the vast difference between making something that sort of works, once, and a design that can be produced by the thousands with nearly every one working, fully meeting specifications, and being reliable under a wide range of operating conditions. Those of us who have made a living by developing quality products such as test equipment have a full appreciation for this, and go about the design process in a very different manner than a person accustomed to making a one-off circuit for home use.

Many, or most, of the books oriented toward amateurs are written by people who haven't developed the background or discipline to produce reliable, repeatable circuits. Magazine articles are even more in this category. Some circuits found in handbooks have perhaps never been actually built or tested by the author, even in a quantity of one. That's not a condemnation -- after all, this is amateur radio, most offerings are free, and the designs are adequate for a lot of users. Hopefully -- although I'm afraid a bit wishfully -- some builders at least have enough technical know-how to take care of minor design flaws. Nonetheless, it's really a treat when we're given a circuit or an explanation by a truly professional engineer whose approach to circuit design is one of making reliable, repeatable circuits. The chances of a copy of the circuit working the first time, as predicted and claimed, are much higher than for a design built once with little understanding of how it works or what its limitations and weak points are. And the deeper the designer's understanding of the fundamental principles involved, the greater the chance that he's accounted for and designed around potential problems in repeatability and operating environment.

That's one of the reasons I like and heartily recommend Wes' books and other writings. I've known him as a friend and as an engineering colleague for 30 years now. He's one of the very best, and we're lucky to have access to a fraction of what he's learned.

Roy Lewallen, W7EL

J M Noeding wrote:
>
> well, said! But isn't this the very frequent feeling one gets from
> reading amateur radio magazines? The constructors (I wouldn't use the
> word "designer") should have constructed and tested at least 10 equal
> constructions, or have similar experience before publishing an idea,
> which may later turn out that might not be repeatable
>
> Too often constructions are published when it is a hope rather than
> experience that it is a good idea. For somebody it is more important

> to use wellknown devices than trying to propose something else
>
> 73, Jan-Martin
>
> ---
> J. M. Noeding, LA8AK, N-4623 Kristiansand
> http://home.online.no/~la8ak/c.htm

3149. Re: What's this inductor doin'?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-16 22:43:50 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cks876dgn1@titan.btinternet.com>
Source record: 22583
Cross-posted to: sci.electronics.basics,rec.radio.amateur.homebrew

>
> >> > Sure did, Steve! I ran it through a spice program and you're right in
> >> > every detail.
> >>======================
> >
> >What makes you think Spice is correct? Its only a buggy computer
program.
> >Rubbish in - rubbish out!
>
> Buggy?? I'm using Multisim (formerly EWB) which has been around longer
> than most spices and therefore has probably less bugs than the rest
> put together!
>

==========

There's far too much blind faith placed in computer programs.

Programs can be no better than their authors who are only fallible human beings.

Good programmers may be able to write practically bug-free programs. But their technical knowledge of the subject matter might be no better than the old-wives who write magazine articles and often contribute to these threads.

Without any intended offence, your Multisim program is worthless to me for the purpose of checking or confirming anything. Why? Because I've never even heard of it! Therefore it carries no weight in attempting to convince me of anything.

Your use of the word "probably" is significant. In the absence of knowledge of the probabilities involved I think it inadvertently displays a measure of lack of confidence in the program.

The only way of accumulating confidence in a computer program is to use it and compare results with what you are already aware of as being true. But if what you are already aware of is untrue and so also is the computer (because you both make the same easily-made mistakes) then your own confidence will be improved but the confidence of others (who may think they know better) in what you say will be undermined.

So, on balance, quoting (or misquoting) computers, measuring instruments, magazine and other articles and contributors to this newsgroup is just a lot of hot air and nobody gets anywhere. Reliabilty depends solely on the confidence which can be placed in the writer.

In extreme cases some authors are worshipped as being infallible such as in ARRL and RSGB handbooks, Terman and Kraus (who I have heard of). Name dropping is better not practiced by name-droppers as a means of supporting and reinforcing their technical arguments.

In the end, statements made by newsgroup contributors are made on their own responsibility without the assistance of free adverts of type numbers of particular measuring instruments, names of computer programs which the great majority of readers have never heard of, the 3 gentlemen who pronounced that 120 radials was a magic number but who forgot to measure ground conductivity, and various worshipped authors whose printing errors and misquoted sermons occasionally disagree with each other, etc.

I'll allow mention of Clerk Maxwell but only by people who have read and understood him. And there's very few of them around. ;o)

Well, I've wandered around and probably said too much. I'm unable to swig wine of any sort tonight because I'm on a 7-day course of anti-biotics and it says on the associated leaflet, in capital letters, alcohol is barred.

Reg.

3150. Re: Intermediate Licence project

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-16 23:20:45 UTC
From: Highland Ham <abcgm0csz.kn6whxyz@abcntlworldxyz.com>
Message-ID: <h1icd.908$RL3.792@newsfe2-gui.ntli.net>
Source record: 22584

> Starting from scratch, with a previous irrelevant interest, perhaps
> needleworking, fishing or CB Radio, you can obtain an M3/CB
> Fools' Licence within 2 days. There is no way that anyone in such
> a category has picked up any technical nous to qualify them as a
> Radio Ham. If there really are people such as you claim, and you have
> not just invented them for the purpose of this discussion, then why
haven't
> they got a higher grade of licence?
=========
The brief course leading to the Foundation Licence is meant to enable the
licensee to take part in amateur radio comms in a responsible way ,without
causing harmful interference ...full stop. It also means that he/she is not
fully qualified technically , which is not deemed necessary by the relevant
UK authorities.

While preparing for the next level ,the Intermediate Licence he/she is
increasing his/her technical knowledge and acquires electronic construction
capabilities. He/she also learns to calibrate equipment ,using relevant
instruments.

Finally while preparing for the Full Licence the licensee increases his/her
level of knowledge to comply with international standards set by ITU

This 3 tier system is similar to the US 'ladder climbing AR licensing system
' and is IMHO an excellent way to train radio hobbyists to the required
level and stimulate further personal development.
There is no justification to make any derogatory comments in respect of
Foundation Licence holders.

Frank GM0CSZ / KN6WH

3151. Re: What's this inductor doin'?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-16 23:35:00 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10n3c17ljnuke16@corp.supernews.com>
Source record: 22585
Cross-posted to: sci.electronics.basics,rec.radio.amateur.homebrew

Reg Edwards wrote:
> . . .
> The only way of accumulating confidence in a computer program is to use it
> and compare results with what you are already aware of as being true. . .
> . . .

SPICE has been used for decades in the design of countless products that you undoubtedly use daily. It's an extremely useful and valuable tool, without which many modern designs simply wouldn't be possible.

Roy Lewallen, W7EL

3152. Re: What's this inductor doin'?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-17 00:56:24 UTC
From: Steve Evans <smevans@jif-lemon.co.mars>
Message-ID: <b5h3n0d7uj15gg1a50t2l083suoel29hj8@4ax.com>
Source record: 22586
Cross-posted to: sci.electronics.basics,rec.radio.amateur.homebrew

On Sat, 16 Oct 2004 16:35:00 -0700, Roy Lewallen <w7el@eznec.com>
wrote:

>Reg Edwards wrote:
>> . . .
>> The only way of accumulating confidence in a computer program is to use it
>> and compare results with what you are already aware of as being true. . .
> > . . .
>
>SPICE has been used for decades in the design of countless products that
>you undoubtedly use daily. It's an extremely useful and valuable tool,
>without which many modern designs simply wouldn't be possible.

Here again, Roy I"m confused. You say its indespensible; Reg Edwards
says its' unreliable. Who am I to beleive? When the experts disagree,
its imposible to form a reliable conculsion.
--

Fat, sugar, salt, beer: the four essentials for a healthy diet.

3153. Re: What's this inductor doin'?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-17 01:12:38 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <6hh3n0todel74pl7vvm5qsuhbpulgsj4ct@4ax.com>
Source record: 22587
Cross-posted to: sci.electronics.basics,rec.radio.amateur.homebrew

On Sat, 16 Oct 2004 22:43:50 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>Without any intended offence, your Multisim program is worthless to me for
>the purpose of checking or confirming anything. Why? Because I've never
>even heard of it! Therefore it carries no weight in attempting to convince
>me of anything.

I can't believe you haven't heard of Multisim, Reg! It used to be
Electronics Work Bench and is with little doubt the worst heap of sh*t
simulator on the market. One can but hope the OP's got the demo
version for nowt or he's spunked a load of cash on SFA. They wanted 4
grand for this hopless crock of sh*t last time I looked!! :-D
--

"What is now proved was once only imagin'd." - William Blake, 1793.

3154. Re: What's this inductor doin'?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-17 01:45:57 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10n3jmobev3dc29@corp.supernews.com>
Source record: 22588
Cross-posted to: sci.electronics.basics,rec.radio.amateur.homebrew

It's only impossible to form a reliable conclusion when "experts" disagree if your sole source of knowledge and information is from those "experts". That's a bad spot to be in. There are many sources of information available to help you learn about the topic and come to a more informed opinion. That's the solution to your dilemma -- develop a wider range of sources of information and decrease your dependence on the "experts".

Originally developed at Berkeley, SPICE has been commercialized by a number of companies, one of the most popular being PSpice by MicroSim. It's in very wide use, and has been for decades. Do you think that a couple of generations of engineers would have paid several thousand dollars each for software with a reputation of unreliability?

My own experience includes about 30 years designing a variety of test and measurement equipment for several companies, followed by several years doing electronics design as a consultant. In that time, I and my colleages at Tektronix and other companies used SPICE very often. (In fact, recognizing it value, Tek spent a large amount of money and devoted resources to development of its own internal version of SPICE, which included schematic entry and other features before they were available in outside commercial versions.) It's virtually impossible to design an analog or mixed analog-digital integrated circuit without it, and I and my colleagues found it indispensible for many other projects.

You might compare this with Reg's experience with SPICE, if he'll tell you what it is, and see what brought him to make the unequivocal statement about it which he did. I don't personally think he really believes that it's unreliable, though, but was just making one of his characteristic trolls in order to relieve boredom.

Roy Lewallen, W7EL

Steve Evans wrote:

> On Sat, 16 Oct 2004 16:35:00 -0700, Roy Lewallen <w7el@eznec.com>
> wrote:
>
>
>>Reg Edwards wrote:
>>
>>>. . .
>>>The only way of accumulating confidence in a computer program is to use it
>>>and compare results with what you are already aware of as being true. . .
>>>. . .

>>
>>SPICE has been used for decades in the design of countless products that
>>you undoubtedly use daily. It's an extremely useful and valuable tool,
>>without which many modern designs simply wouldn't be possible.
>
>
> Here again, Roy I"m confused. You say its indespensible; Reg Edwards
> says its' unreliable. Who am I to beleive? When the experts disagree,
> its imposible to form a reliable conculsion.

3155. Searching overtone Butler type xtal osc info

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-17 02:58:36 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <cpn3n0l4la42dtr6pckhgpch3rj54n4hef@4ax.com>
Source record: 22589

on the page http://home.online.no/~la8ak/d3.htm I've shown two
versions for the Butler oscillator, but the first is a later version
with diode limiters to improve the stability.

Believe I've seen an article or a note about using diode limiters for
the second type of Butler oscillator, but I am unable to trace the
document now

Any suggestions?

73
Jan-Martin

J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

3156. Searching overtone Butler type xtal osc info

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-17 02:59:14 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <kvn3n0dr534512fdh8qn1t3hedpel7v1i9@4ax.com>
Source record: 22590

on the page http://home.online.no/~la8ak/d3.htm I've shown two
versions for the Butler oscillator, but the first is a later version
with diode limiters to improve the stability.

Believe I've seen an article or a note about using diode limiters for
the second type of Butler oscillator, but I am unable to trace the
document now

Any suggestions?

73
Jan-Martin

J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

3157. Re: Wes Hayward's "other" book...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-17 03:33:24 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <j8p3n01r16vf3mt3cc8vu98b4nck5ht978@4ax.com>
Source record: 22591

On Sat, 16 Oct 2004 15:17:47 -0700, Roy Lewallen <w7el@eznec.com>
wrote:

>
>Many, or most, of the books oriented toward amateurs are written by
>people who haven't developed the background or discipline to produce
>reliable, repeatable circuits. Magazine articles are even more in this
>category. Some circuits found in handbooks have perhaps never been
>actually built or tested by the author, even in a quantity of one.
>That's not a condemnation -- after all, this is amateur radio, most
>offerings are free, and the designs are adequate for a lot of users.
>Hopefully -- although I'm afraid a bit wishfully -- some builders at
>least have enough technical know-how to take care of minor design flaws.
>Nonetheless, it's really a treat when we're given a circuit or an
>explanation by a truly professional engineer whose approach to circuit
>design is one of making reliable, repeatable circuits. The chances of a
>copy of the circuit working the first time, as predicted and claimed,
>are much higher than for a design built once with little understanding
>of how it works or what its limitations and weak points are. And the
>deeper the designer's understanding of the fundamental principles
>involved, the greater the chance that he's accounted for and designed
>around potential problems in repeatability and operating environment.
>
>That's one of the reasons I like and heartily recommend Wes' books and
>other writings. I've known him as a friend and as an engineering
>colleague for 30 years now. He's one of the very best, and we're lucky
>to have access to a fraction of what he's learned.
>
When amateur constructors are mentioned, it is not only those who do
strange things. While many large telecommunication and instrument
factories like HP, Tektronic, Siemens, Wandel&Goltermann,
Rohde&Schwartz, LME, Philips, Telettra seem to have certain rules to
follow and you may even see certain ways the different factory solves
the problems, it is some very large companies in Norway, Great
Brittain and elsewhere who make rather strange solutions.

One Italian company forgot to put transient protection over a relay,
and the driver transistor was damaged ever so often. I've maintained
many different transmitters which were almost impossible to tune up
after replacing parts because the impedances changed a lot, adding a
resistor in the base circuit improved on this. A wellknown Norwegian
radiolink manufacturer designed local oscillators in 6-8GHz using
2N3866 with over 1.5W power consumption, a buffer with the same and
operated in class C, the next doubler to 200MHz in class C and a
2N3866 as well, and a 2N3375 in class C. The first and third

transistors were critical and had to be replaced every two years, and the signal on 6cm was so noisy that SM6ESG couldn't find any beat note. He modified the stages to class A, reduced the drive level on all stages and the heat was considerable lower, and at least the oscillator noise very much improved

So, one shouldn't only blame the amateurs for bad constructors, but sometime the manufacturers may even be worse

73,
Jan-Martin

J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

3158. Tube current sink

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-17 04:19:54 UTC
From: Prune <bobysgotguns@yahoo.com>
Message-ID: <Xns9584D9015D441Gormenghast@64.59.144.76>
Source record: 22592

What's the best tube type to use for a voltage controlled current sink, with respect to linearity?

I am building plasma tweeters, with a DC glow discharge modulated by audio (similar to US patent 4,219,705, but I'm using microhollow discharges (MHCD) as cathodes for the larger discharge to remove cathode fall instabilities; this technique was unknown during the time of that patent). My power supply is 2700 V at 400 mA (200 mA for each of two channels for a stereo setup), ripple filtered to 0.01 V. I'm hoping to have the discharge drop most of the voltage, and the driving device a lesser portion. The driver needs to be a voltage controlled current sink at the plasma cathode (the plasma anode is the high voltage). Since the audio modulation is only a few percent of the bias, less than 20 mA, essentially I'm concerned with linearity in a small range around the average operating point. I need to know what's the best tube type to use in terms of the sound quality, and in what configuration (grounded cathode or grid, etc.). Most current drives use pentodes, but I've been told a triode is more linear.

3159. Re: Wes Hayward's "other" book...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-17 05:11:05 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10n3vncd6ldi0e8@corp.supernews.com>
Source record: 22593

I obviously can't speak for the Italian or Norwegian companies you mention, but I do have the direct experience of 17 years of circuit design and project engineering management at Tektronix. It's hard to imagine experiences like yours happening with Tek equipment.

During the time I worked there, and presumably up to the present, Tek had what they called the "phase" system. The engineers would do their very best to design the product to meet all the advertised specifications, plus additional non-advertised in-house specs. These included temperature, vibration, shock, humidity and other environmental specs; certification by various safety agencies; and EMC requirements, in addition to detailed electrical performance specs.

When this design was complete, a meeting was held. Attendees included representatives from design engineering, marketing, product safety, component and evaluation engineering, and others. Only by consensus of this group was the milestone declared to have been completed.

This was just the beginning, though, of the first phase, called "A Phase". A number of instruments were built, typically around 25 to 50. Some were sent to the environmental lab to test performance over the range of specified environmental conditions. Others were shaken and shocked. Others were studded with temperature probes and tested for excessive temperature at many internal points. A few were put on accelerated long-term reliability testing at a greatly elevated temperature. Some were cycled on and off at high temperature. The design was carefully analyzed by the evaluation engineering group, looking for overstressed components. And many of the units were tested against the full specification list, to insure that they fully met every spec.

During this phase, many problems were of course found and fixed. The engineers would generate change orders describing the fixes, and the test units were modified accordingly.

When it was believed that the units all met the many requirements, another milestone meeting was held. Again if the attendees agreed, the milestone was declared met, and "B Phase" began.

B Phase was largely a re-run of A Phase. Again, a sizeable number of instruments were built and fully tested. Problems which were found were corrected. Only at the end of this phase was production started.

Production often started with a pilot build. The first hundred or so instruments were given extra scrutiny, temperature cycled, and otherwise tested in a way to overstress them. These instruments normally became demo units for the sales force, and some were retained by engineering

for internal use.

After pilot production, volume shipment finally commenced. Some large companies required an incoming inspection test where every one of the electrical performance specifications was checked, and the instrument rejected if any failed. I once had the job of collecting test equipment and writing a procedure for customers to use for testing our 50 GHz bandwidth sampling head to specification, and it was very difficult to find equipment capable of verifying the performance. We weren't able to claim 60 GHz bandwidth even though we were pretty sure our units would do it, because we couldn't find a way for us or the customer to verify it at the time.

After the units were in production, each field service center kept records of repairs, and which components failed. They were sorted by circuit number (e.g. Q123) and part number, as well as by instrument and board. If any part showed a high failure rate, the design was modified and future instruments were built using the new design.

I know that other quality manufacturers have similar development systems.

That's why a Tektronix instrument costs a lot more than some others. The existence of companies putting out the shoddy sort of stuff you mention shows that some people are willing to trade quality for price. That's their choice.

But the environment I described is the one I, and Wes, are accustomed to, and it's what our designs had to get through.

Roy Lewallen, W7EL
(formerly Principal Engineer, Tektronix)

J M Noeding wrote:
> On Sat, 16 Oct 2004 15:17:47 -0700, Roy Lewallen <w7el@eznec.com>
> wrote:
>
> When amateur constructors are mentioned, it is not only those who do
> strange things. While many large telecommunication and instrument
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> follow and you may even see certain ways the different factory solves
> the problems, it is some very large companies in Norway, Great
> Brittain and elsewhere who make rather strange solutions.
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> and the driver transistor was damaged ever so often. I've maintained
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> radiolink manufacturer designed local oscillators in 6-8GHz using
> 2N3866 with over 1.5W power consumption, a buffer with the same and
> operated in class C, the next doubler to 200MHz in class C and a

> 2N3866 as well, and a 2N3375 in class C. The first and third
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> the signal on 6cm was so noisy that SM6ESG couldn't find any beat
> note. He modified the stages to class A, reduced the drive level on
> all stages and the heat was considerable lower, and at least the
> oscillator noise very much improved
>
> So, one shouldn't only blame the amateurs for bad constructors, but
> sometime the manufacturers may even be worse
>
> 73,
> Jan-Martin
> ---
> J. M. Noeding, LA8AK, N-4623 Kristiansand
> http://home.online.no/~la8ak/c.htm

3160. Re: What's this inductor doin'?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-17 05:59:02 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <ckt1n6$qj7$1@titan.btinternet.com>
Source record: 22594
Cross-posted to: sci.electronics.basics,rec.radio.amateur.homebrew

Some years back, after retirement, I bought out of curiosity a copy of Electronics Work Bench. It was and still is the only such program I have ever had my hands on. I think it arrived on a collection of floppies.

After a few days curiosity was satisfied. Then I junked it.

Reg

3161. Re: What's this inductor doin'?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-17 07:49:18 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <ckt85u$c55$1@hercules.btinternet.com>
Source record: 22595
Cross-posted to: sci.electronics.basics,rec.radio.amateur.homebrew

All programs have bugs. I only asked why people think it IS reliable.

I am aware of its existence only from the frequent mentions made on newsgroups.

Why do the arguments continue after Spice has arbitrated?

I have no reason to think Roy's opinion of Spice is anything other than true.

But whatever it is, it is not a device intended to be used as a means of instructing learners on the theory of electrical circuits. All programs have many limitations which eventually always become serious and which are UNKNOWN to the user. Very often they are unknown even to the programmer. Limitations should not be allowed to cross over the borders of knowledge. Programs should not be worshipped for always telling the gospel truth. They don't.

For example, a sensible circuit designer invariably checks the output of a program by making a hardware prototype - or several. Why? Because he trusts neither himself nor the program!

Reg

"Steve Evans" <smevans@jif-lemon.co.mars> wrote in message news:b5h3n0d7uj15gg1a50t2l083suoel29hj8@4ax.com...
> On Sat, 16 Oct 2004 16:35:00 -0700, Roy Lewallen <w7el@eznec.com>
> wrote:
>
> >Reg Edwards wrote:
> >> . . .
> >> The only way of accumulating confidence in a computer program is to use it
> >> and compare results with what you are already aware of as being true. . .
> > > > . . .
> > >
> >SPICE has been used for decades in the design of countless products that
> >you undoubtedly use daily. It's an extremely useful and valuable tool,
> >without which many modern designs simply wouldn't be possible.
>
> Here again, Roy I"m confused. You say its indespensible; Reg Edwards
> says its' unreliable. Who am I to beleive? When the experts disagree,
> its imposible to form a reliable conculsion.
> --

>
> Fat, sugar, salt, beer: the four essentials for a healthy diet.

3162. Re: Top coupled resonators (more bandstop filters)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-17 09:07:54 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10n4djealcqhic6@corp.supernews.com>
Source record: 22596

It's been a while since I've done this. But one way to realize a band stop filter is to begin with a lowpass prototype of the desired response (Butterworth, Chebyshev, etc.). Then add a capacitance in parallel with each inductance of the lowpass, of value 1/(w0^2 * L), and an inductance in series with each capacitance of the network, of value 1/(w0^2 * C). Beginning with a common series L - shunt C lowpass, this results in series-connected parallel resonant circuits with shunt series resonant circuits in between. Intuitively, the topology is correct in that you'll have zeros due to both the series and shunt networks, and the response will be unity at DC and infinite frequency. Another topology which would work is alternating shunt series resonant circuits and series parallel resonant circuits. The topology you describe can't possibly work since the coupling capacitor prevents unity response at DC.

This methodology doesn't account for inductor loss, as Wes' analysis does. You'll find the necessary information about this in Zverev, and making use of it will give you a real appreciation for the programs now available for the purpose.

Roy Lewallen, W7EL

Joel Kolstad wrote:

> I've been reading Wes Hayward's articles on coupled resonator filters, and
> I've simulated some of the results and they're what I'd expect. However,
> his examples are all bandpass filters... and I need a bandstop filter.
> Chanigng the parallel LC shunt resonators to series LC series resonators
> doesn't really work at all... although there's a perfect notch at the
> desired center frequency, the passband response is very low (tens of dB
> insertion loss) and recovers very, very slowly. It seemed as though I just
> needed a different size coupling capacitor, but playing around some doesn't
> improve the response significantly (for instance, if you take the example on
> page 85 of Introduction to Radio Frequency Design and change the parallel
> resonators to series resonators, even if you change the 7.2pF top coupling
> capacitor to something astronomical such as 1nF the response is still poor).
>
> I've ordered a copy of Zverev's book (and Zverev w/Mathei), where the theory
> of all this comes from, but in the interim... can anyone suggest what the
> fundamental problem might be? Interesting, from looking at a few pages of
> Zverev on Amazon.Com he does have schematics of what I think I'm after (top
> capacitor coupled series resonators to create bandstop filters).
>
> Thanks,
> ---Joel Kolstad
>

>
>

3163. Re: Top coupled resonators (more bandstop filters)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-17 09:32:36 UTC
From: Leon Heller <leon_heller@hotmail.com>
Message-ID: <41723c34$0$20461$cc9e4d1f@news-text.dial.pipex.com>
Source record: 22597

"Joel Kolstad" <JKolstad71HatesSpam@Yahoo.Com> wrote in message
news:iZqdnZfWCfMb8u3cRVn-jQ@comcast.com...
> I've been reading Wes Hayward's articles on coupled resonator filters, and
> I've simulated some of the results and they're what I'd expect. However,
> his examples are all bandpass filters... and I need a bandstop filter.
> Chanigng the parallel LC shunt resonators to series LC series resonators
> doesn't really work at all... although there's a perfect notch at the
> desired center frequency, the passband response is very low (tens of dB
> insertion loss) and recovers very, very slowly. It seemed as though I
> just needed a different size coupling capacitor, but playing around some
> doesn't improve the response significantly (for instance, if you take the
> example on page 85 of Introduction to Radio Frequency Design and change
> the parallel resonators to series resonators, even if you change the 7.2pF
> top coupling capacitor to something astronomical such as 1nF the response
> is still poor).
>
> I've ordered a copy of Zverev's book (and Zverev w/Mathei), where the
> theory of all this comes from, but in the interim... can anyone suggest
> what the fundamental problem might be? Interesting, from looking at a few
> pages of Zverev on Amazon.Com he does have schematics of what I think I'm
> after (top capacitor coupled series resonators to create bandstop
> filters).

The Elsie filter synthesis program has a bandstop filter design option. I
just tried it and it works OK. None of the designs are top-coupled
resonators, though.

Leon
--
Leon Heller, G1HSM
http://www.geocities.com/leon_heller

3164. Re: Top coupled resonators (more bandstop filters)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-17 09:33:01 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10n4f2h4r2dj816@corp.supernews.com>
Source record: 22598

Correction:

Roy Lewallen wrote:
> . . .Another topology which would
> work is alternating shunt series resonant circuits and series parallel
> resonant circuits. . .

That's the same topology I described just above.

Roy Lewallen, W7EL

3165. Re: Searching overtone Butler type xtal osc info

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-17 09:55:39 UTC
From: "Harold E. Johnson" <W4ZCB@mchsi.com>
Message-ID: <vkrcd.405799$Fg5.200845@attbi_s53>
Source record: 22599

> Believe I've seen an article or a note about using diode limiters for
> the second type of Butler oscillator, but I am unable to trace the
> document now
>
> Any suggestions?
>
Yes, as good as they come. And he explains why.

QEX, Nov/Dec 1999 Pg 11-17

W4ZCB

3166. Re: What's this inductor doin'?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-17 10:06:08 UTC
From: Roger Johansson <no-email@home.se>
Message-ID: <Xns95857BEF795A986336@130.133.1.4>
Source record: 22600
Cross-posted to: sci.electronics.basics,rec.radio.amateur.homebrew

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote:

> Some years back, after retirement, I bought out of curiosity a copy of
> Electronics Work Bench. It was and still is the only such program I
> have ever had my hands on. I think it arrived on a collection of
> floppies.
>
> After a few days curiosity was satisfied. Then I junked it.
> ---
> Reg

Just an explanation to the person who asked:

Reg is one of the few people in the world who have no use for a spice simulator. He writes lots of very good calculation programs and knows electronics like he had a built-in electronics simulator in his brain. He has studied electronics during a long life and knows what he talks about.

For other people though, a spice simulator can be very useful.

Multisim has a very bad reputation because is has a lot of bugs.
The best version of EWB is 5.c
After that version multisim replaced the central parts of the program and the new program had a lot of problems.

Nobody uses later versions of multisim, so we do not know if they have solved the bugs yet.

EWB 5 is used by beginners, because it has a very good user interface.
But even EWB 5 is not regarded as a good spice simulator.

Professionals often like the freeware spice simulator Switchercad3 from Linear Technology. http://www.linear.com/company/software.jsp

I use EWB 5.c myself, because it is good enough for my purposes, and it is a lot easier to work with than Switchercad3. But I use Switchercad3 sometimes too, because people in newsgroups often give a circuit in switchercad's text file format.

Another advantage for EWB is that it has been around a while, so there are many add-ons to the program, like a converter from EWB circuit to an Eagle layout (Eagle is a freeware layout program for circuit boards). Translation programs from ewb to standard netlist is also available.

After multisim changed the program there was a big wave of protests among the EWB users and buyers. New buyers demanded to get a copy of the old working program when they bought the new version, and Multisim accepted

that and delivered a EWB version 5c for free, on demand, to all buyers of the new program.

I don't know if they still do.

--
Roger J.

3167. Re: What's this inductor doin'?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-17 12:52:17 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2tf8jbF1ufesdU1@uni-berlin.de>
Source record: 22602
Cross-posted to: sci.electronics.basics,rec.radio.amateur.homebrew

Question - what is the internal modelling technique used
by these various programs, and can we produce our own package?

Is it based upon successive delta-time increments, and if so, what
is the increment? What prompted the last question is an attempt
I made to create a sine-wave generator using the identity that
sin dTheta = dTheta, but I had to go for an _extremely_ small
value of dTheta (ISTR 10^ -18) before getting anything like a
decent sine wave, and even that degenerated after a few cycles.

So, these circuit simulators - what is their underlying technique
for circuit simulation?

"Roger Johansson" <no-email@home.se> wrote in message
news:Xns95857BEF795A986336@130.133.1.4...
> "Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote:
> > Some years back, after retirement, I bought out of curiosity a copy of
> > Electronics Work Bench. It was and still is the only such program I
> > have ever had my hands on. I think it arrived on a collection of
> > floppies.
> Multisim has a very bad reputation because is has a lot of bugs.
> The best version of EWB is 5.c

3168. Re: Wes Hayward's "other" book...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-17 12:55:15 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2tf8jcF1ufesdU2@uni-berlin.de>
Source record: 22601

And what happened when the management/sales team decided they were
going to deliver anyway, and asked you in a _meaningful_ manner
whether you thought that your objections to the milestone being declared
were really in the company's best interests or in your own personal
best interests?

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:10n3vncd6ldi0e8@corp.supernews.com...
> When this design was complete, a meeting was held. Attendees included
> representatives from design engineering, marketing, product safety,
> component and evaluation engineering, and others. Only by consensus of
> this group was the milestone declared to have been completed.

3169. Re: What's this inductor doin'?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-17 13:44:15 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <kft4n0hq3qhnnum7g8e8t9egksroki493c@4ax.com>
Source record: 22603
Cross-posted to: sci.electronics.basics,rec.radio.amateur.homebrew

On Sun, 17 Oct 2004 13:52:17 +0100, "Airy R. Bean" <me@privacy.net>
wrote:

>Question - what is the internal modelling technique used
>by these various programs, and can we produce our own package?

Most of them (exceptions being the harmonic balance types for RF) use
the old Berkeley Spice engine developed by the good folks at the
eponymous university. The simulation package authors just adapt the
engine with their own preferences WRT to features, GUI, gimmicks etc.
So yeah, you can certainly come up with your own flavor of Spice just
by adapting the basic Berkeley engine to your tastes. It's highly
unlikely to be worth the effort, though. There's already a spice out
there for everyone - if you can find the right one for you.
--

"What is now proved was once only imagin'd." - William Blake, 1793.

3170. Re: Wes Hayward's "other" book...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-17 13:45:15 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <54t4n0lr1sulaopefhtomkhl1b1ru7kgek@4ax.com>
Source record: 22604

On Sun, 17 Oct 2004 13:55:15 +0100, "Airy R. Bean" <me@privacy.net>
wrote:

>And what happened when the management/sales team decided they were
>going to deliver anyway, and asked you in a _meaningful_ manner
>whether you thought that your objections to the milestone being declared
>were really in the company's best interests or in your own personal
>best interests?
>
>"Roy Lewallen" <w7el@eznec.com> wrote in message
>news:10n3vncd6ldi0e8@corp.supernews.com...
>> When this design was complete, a meeting was held. Attendees included
>> representatives from design engineering, marketing, product safety,
>> component and evaluation engineering, and others. Only by consensus of
>> this group was the milestone declared to have been completed.
>

apart from Tek and certain others which Roy describes, I believe that
some economists look at the balance between number of components used
and trade-off in production, so much more equipment would pass the
control if certain components were added.

What I actually meant, but perhaps didn't fully express was that you
may study the circuit diagrams and have a feeling which manufacturer
has designed it, they follow certain techniques and technical
management.

On the other hand one may experience that HP and Tek uses some extra
components which are difficult for the average constructor to explain
or understand the function for, and one may experience that even among
the amateurs somebody manage some technique which almost nobody else
can copy - not even very experienced persons, may I mention SM5BZR
Leif's techniques, it is many constructions, they may look so easy,
but one often need some more deeper understanding to succeed, what
say's G3SEK?

73
Jan-Martin

J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

3171. Re: What's this inductor doin'?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-17 13:53:33 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <80u4n05115iqpga3u4igokdvusvn5bis30@4ax.com>
Source record: 22605
Cross-posted to: sci.electronics.basics,rec.radio.amateur.homebrew

On Sun, 17 Oct 2004 05:59:02 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>Some years back, after retirement, I bought out of curiosity a copy of
>Electronics Work Bench. It was and still is the only such program I have
>ever had my hands on. I think it arrived on a collection of floppies.
>
>After a few days curiosity was satisfied. Then I junked it.
>---
>Reg
>
In 1970 I bought the latest issue RSGB Handbook, obviously a decade
before the transistors were being discovered in England, and several
decades before the spectrum analyser were applied over there. So after
a week I managed to find another person to keep the book, not sure if
he paid for the rubbish

73, Jan-Martin

J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

3172. Re: What's this inductor doin'?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-17 13:57:37 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2tfcfdF1v0f9kU1@uni-berlin.de>
Source record: 22606
Cross-posted to: sci.electronics.basics,rec.radio.amateur.homebrew

I'm not interested in someone else's engine - that's not the
way of the _REAL_ Radio Ham

It is _ALWAYS_ worth the effort to do things for yourself - that
is the essence of _REAL_ Ham Radio - it is the CBer and the
CBer-Masquerading-As-A-Radio-Ham who buy things
off-the -shelf!

"Paul Burridge" <pb@notthisbit.osiris1.co.uk> wrote in message
news:kft4n0hq3qhnnum7g8e8t9egksroki493c@4ax.com...
> On Sun, 17 Oct 2004 13:52:17 +0100, "Airy R. Bean" <me@privacy.net>
> wrote:
>
> >Question - what is the internal modelling technique used
> >by these various programs, and can we produce our own package?
>
> Most of them (exceptions being the harmonic balance types for RF) use
> the old Berkeley Spice engine developed by the good folks at the
> eponymous university. The simulation package authors just adapt the
> engine with their own preferences WRT to features, GUI, gimmicks etc.
> So yeah, you can certainly come up with your own flavor of Spice just
> by adapting the basic Berkeley engine to your tastes. It's highly
> unlikely to be worth the effort, though. There's already a spice out
> there for everyone - if you can find the right one for you.
> --
>
> "What is now proved was once only imagin'd." - William Blake, 1793.

3173. Re: What's this inductor doin'?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-17 14:00:49 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2tfcfdF1v0f9kU2@uni-berlin.de>
Source record: 22607
Cross-posted to: sci.electronics.basics,rec.radio.amateur.homebrew

It's been the case in Britland for many years now, that if you
want info to build modern gear, then buy the ARRL handbooks.
OTOH, if you want a mediocre book that is many
years out of date and seems to owe more to self-congratulation than
it does to technical excellence, then go for the RSCB offering. Odd, really,
when you consider that the RSCB is a publishing corporation.

"J M Noeding" <la8ak@online.no> wrote in message
news:80u4n05115iqpga3u4igokdvusvn5bis30@4ax.com...
> In 1970 I bought the latest issue RSGB Handbook, obviously a decade
> before the transistors were being discovered in England, and several
> decades before the spectrum analyser were applied over there. So after
> a week I managed to find another person to keep the book, not sure if
> he paid for the rubbish

3174. Re: What's this inductor doin'?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-17 14:52:38 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <dc15n0dima7ip954c5tf35vp9v9efraoe2@4ax.com>
Source record: 22608
Cross-posted to: sci.electronics.basics,rec.radio.amateur.homebrew

On Sun, 17 Oct 2004 15:00:49 +0100, "Airy R. Bean" <me@privacy.net>
wrote:

>It's been the case in Britland for many years now, that if you
>want info to build modern gear, then buy the ARRL handbooks.
>OTOH, if you want a mediocre book that is many
>years out of date and seems to owe more to self-congratulation than
>it does to technical excellence, then go for the RSCB offering. Odd, really,
>when you consider that the RSCB is a publishing corporation.
>
I do not agree, and soon the RSGB is the only IARU organization I
support, have been a member from january 74. They now contribute with
a lot of useful material, but it was different earlier, as one had the
feeling that high-ranked persons or duke and knights with outdated
experience was telling you what to do.

But for Radcom, I must admit that I mainly read G3VA's "Technical
topics"

My radio club was Worcester &DARC, suppose it is not so much activity
there now....

J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

3175. Re: Wes Hayward's "other" book...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-17 16:08:37 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <6ghC1NNFkpcBFA6Y@ifwtech.co.uk>
Source record: 22610

J M Noeding wrote:
>On the other hand one may experience that HP and Tek uses some extra
>components which are difficult for the average constructor to explain
>or understand the function for,

They don't have a legal obligation to explain their detailed circuit design... but you can learn a lot by trying to work it out for yourself.

>and one may experience that even among the amateurs somebody manage
>some technique which almost nobody else can copy - not even very
>experienced persons, may I mention SM5BZR Leif's techniques, it is many
>constructions, they may look so easy, but one often need some more
>deeper understanding to succeed, what say's G3SEK?

I don't have any personal experience of copying Leif's designs (assuming this is SM5BSZ we're talking about) but they have been widely copied. It just takes everyone else a whole lot longer... so he's still way out ahead.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

3176. Re: Wes Hayward's "other" book...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-17 18:28:21 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10n5ee9gpt62a5d@corp.supernews.com>
Source record: 22611

In my experience, never. And I never heard of it happening, ever.

When the heat got turned up, everyone worked nights and weekends until
the goal was met. If we couldn't do it, the project was canceled.

Roy Lewallen, W7EL

Airy R. Bean wrote:
> And what happened when the management/sales team decided they were
> going to deliver anyway, and asked you in a _meaningful_ manner
> whether you thought that your objections to the milestone being declared
> were really in the company's best interests or in your own personal
> best interests?
>
> "Roy Lewallen" <w7el@eznec.com> wrote in message
> news:10n3vncd6ldi0e8@corp.supernews.com...
>
>>When this design was complete, a meeting was held. Attendees included
>>representatives from design engineering, marketing, product safety,
>>component and evaluation engineering, and others. Only by consensus of
>>this group was the milestone declared to have been completed.
>
>
>

3177. Re: Tube current sink

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-17 19:29:09 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10n5hvut3m0e33b@corp.supernews.com>
Source record: 22612

Prune wrote:

> What's the best tube type to use for a voltage controlled current sink,
> with respect to linearity?
>
> I am building plasma tweeters, with a DC glow discharge modulated by audio
> (similar to US patent 4,219,705, but I'm using microhollow discharges
> (MHCD) as cathodes for the larger discharge to remove cathode fall
> instabilities; this technique was unknown during the time of that patent).
> My power supply is 2700 V at 400 mA (200 mA for each of two channels for a
> stereo setup), ripple filtered to 0.01 V. I'm hoping to have the discharge
> drop most of the voltage, and the driving device a lesser portion. The
> driver needs to be a voltage controlled current sink at the plasma cathode
> (the plasma anode is the high voltage). Since the audio modulation is only
> a few percent of the bias, less than 20 mA, essentially I'm concerned with
> linearity in a small range around the average operating point. I need to
> know what's the best tube type to use in terms of the sound quality, and in
> what configuration (grounded cathode or grid, etc.). Most current drives
> use pentodes, but I've been told a triode is more linear.

I don't know the best tube for your application, but I _can_ tell you that a triode has a quite significantly lower plate resistance than a pentode; if you really need the current to be independent of plate voltage then a triode without heavy cathode degeneration isn't the way to go.

I believe that triodes are more linear when driving a resistive load exactly because of this lower plate impedance -- if you hold the plate voltage constant then the plate current vs. grid voltage relationship isn't any better than a pentode, but if you allow the plate voltage to vary it provides internal feedback on the tube current.

Hopefully you'll get someone who'll give you a more definitive answer. Perhaps looking for a newsgroup that involves audio, rather than radio, homebrewing will help.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

3178. Re: Wes Hayward's "other" book...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-17 19:32:58 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10n5i7egs3j8d1f@corp.supernews.com>
Source record: 22613

This is to be expected. The engineers who work at the job all day, every day, know and understand a lot more about the circuits they're designing than someone to whom it's only a hobby.

And, considering the incredible time and effort that goes into the design of each product, Tektronix and similar companies can't afford to be making instruments that can be perfectly copied within days. I never saw any conscious effort to obscure a design, but the normal process of developing state-of-the-art equipment required use of techniques out of the reach of amateurs or even most manufacturing companies. Let me give you just a few examples.

1. Circuit board layout becomes critical for many high performance circuits, and sometimes several iterations are required before all problems are solved. There are also mechanical considerations such as maintaining necessary air flow. In a product I worked on, we had to solder the turns of a delay line together to reduce coupling from a CRT deflection circuit. In another, the ground was broken in a critical point to interrupt ground current flow.

2. Design techniques are used which aren't well known outside the industry. For example, look at the schematic of the vertical amplifiers in older Tek analog scopes. You'll find series RC combinations, sometimes with a thermistor as the R, between the emitters of the differential stage transistors. These served two functions. One was to compensate for the delay line loss which increases as the square root of frequency. The other is to compensate for thermals -- the fact that a common-emitter stage gain changes as the transistor heats up in response to a signal voltage change. This can usually be ignored in a time-domain application, but can cause serious distortion of a voltage step or other time-domain waveform. Changing the transistor type or sometimes even its package type changes the compensation requirements.

3. Component selection and design are often critical, as is material selection. As an example, some high impedance attenuators are built on special circuit board material such as polysulfone, because of a nonlinear property of FR4 and other materials called "hook" which causes signal distortion.

4. Manufacturing techniques. The list of these is almost endless. It becomes a major determining factor in circuit performance particularly at very high frequencies, such as the 20 - 50 GHz sampling heads I helped design.

I recall showing a photomicrograph of a new sampling head to a company which was very sensitive to security, and telling the surprised

engineers that I'd be happy to give them a copy. I also told them truthfully that even if I gave them the schematic and parts list, they still wouldn't be able to build it. I'd guess that a competing company with world-class engineers might be able to do so in about a year. There were just too many special and selected components and manufacturing tricks.

So it's wishful thinking to believe that you can duplicate one of these high-performance circuits by soldering parts together from a circuit diagram. There's a very lot that goes into these products that most people have no idea of.

Roy Lewallen, W7EL

J M Noeding wrote:
> . . .
> On the other hand one may experience that HP and Tek uses some extra
> components which are difficult for the average constructor to explain
> or understand the function for, and one may experience that even among
> the amateurs somebody manage some technique which almost nobody else
> can copy - not even very experienced persons, may I mention SM5BZR
> Leif's techniques, it is many constructions, they may look so easy,
> but one often need some more deeper understanding to succeed, what
> say's G3SEK?
>
> 73
> Jan-Martin
> ---
> J. M. Noeding, LA8AK, N-4623 Kristiansand
> http://home.online.no/~la8ak/c.htm

3179. Re: What's this inductor doin'?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-17 21:32:55 UTC
From: clifto <clifto@clifto.com>
Message-ID: <715b42-7su.ln1@remote.clifto.com>
Source record: 22614
Cross-posted to: sci.electronics.basics,rec.radio.amateur.homebrew

Roy Lewallen wrote:
> (In
> fact, recognizing it value, Tek spent a large amount of money and
> devoted resources to development of its own internal version of SPICE,
> which included schematic entry and other features before they were
> available in outside commercial versions.)

You owe me a keyboard to replace the one that just died under three
quarts of drool.

--
Most dying mothers say, "I love you, son," or "Take care of your sister."
Why were the last words of Kerry's mother a lecture on integrity?

3180. Re: Tube current sink

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-17 22:36:54 UTC
From: hexter@blazenet.net
Message-ID: <10n5t06111av24c@corp.supernews.com>
Source record: 22615

In article <Xns9584D9015D441Gormenghast@64.59.144.76>, bobysgotguns@yahoo.com says...
>
>What's the best tube type to use for a voltage controlled current sink,
>with respect to linearity?
>
>I am building plasma tweeters, with a DC glow discharge modulated by audio
>(similar to US patent 4,219,705, but I'm using microhollow discharges
>(MHCD) as cathodes for the larger discharge to remove cathode fall
>instabilities; this technique was unknown during the time of that patent).
>My power supply is 2700 V at 400 mA (200 mA for each of two channels for a
>stereo setup), ripple filtered to 0.01 V. I'm hoping to have the discharge

So, 1080 watts of heat dissapation or more just to hear high frequencies???

Is there no other more sensible use of energy for you?? It would seem that there are several types of tweeter choices that require no energy other than audio drive that would still perform 10 times better than your ears ability to determine distortion, and at least 5 times better than any pickup devices ability to change input sounds into electrical output.

If you really want to waste energy as heat dissapation, and impress your audiopill lacky buddies, use a 304TL, or 304TH. 300 watts of plate capacity with a super high perveance that looks like a plate to heater short if you drive the grids a little bit positive.

You should turn yourself in to the EnergyStar folks, and do about 100 hours of community service. The crime??? More imagination than true ability to determine accurate sound reproduction quality.

3181. Re: What's this inductor doin'?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-17 23:07:14 UTC
From: Steve Evans <smevans@jif-lemon.co.mars>
Message-ID: <nqu5n0d1e48h25ek9pq2s2begcltjuql0e@4ax.com>
Source record: 22616
Cross-posted to: sci.electronics.basics,rec.radio.amateur.homebrew

On Sun, 17 Oct 2004 16:52:38 +0200, J M Noeding <la8ak@online.no>
wrote:

>On Sun, 17 Oct 2004 15:00:49 +0100, "Airy R. Bean" <me@privacy.net>
>wrote:
>
>>It's been the case in Britland for many years now, that if you
>>want info to build modern gear, then buy the ARRL handbooks.
>>OTOH, if you want a mediocre book that is many
>>years out of date and seems to owe more to self-congratulation than
>>it does to technical excellence, then go for the RSCB offering. Odd, really,
>>when you consider that the RSCB is a publishing corporation.
>>
>I do not agree, and soon the RSGB is the only IARU organization I
>support, have been a member from january 74. They now contribute with
>a lot of useful material, but it was different earlier, as one had the
>feeling that high-ranked persons or duke and knights with outdated
>experience was telling you what to do.
>
>But for Radcom, I must admit that I mainly read G3VA's "Technical
>topics"
>
>My radio club was Worcester &DARC, suppose it is not so much activity
>there now...

In my limited experience over the lats 22 months Iv'e read both (well
looked through both!) and they aer both highly infromative books. Id
just give the edge to the ARRL version, it's more readable and has
more coentent, but hte RAdcom version is still well worlth having on
the shelf. I do'nt see any problem with the Brits anachronistic
attachment to valve gear.
--

Fat, sugar, salt, beer: the four essentials for a healthy diet.

3182. Re: Wes Hayward's "other" book...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-17 23:14:16 UTC
From: rmonagha@engr.smu.edu
Message-ID: <ckuuc8$1ff$1@blaze.seas.smu.edu>
Source record: 22617

my favorite commercial design "oops" was a pricey multi-port TTY
(teletype) i/o board for the then new Nova 4/X minicomputer (data
general). Worked great, as long as you only used video terminals
emulating a TTY on a current loop. Put on a _real_ teletype, and you
quickly fried the board, every time. No protection against counter-EMF.
After two board exchanges (in warranty, thankfully), we finally just
put in opto-isolators on our own TTY lines and it worked thereafter. ;-)

grins bobm
--
****
* Robert Monaghan POB 752182 Southern Methodist Univ. Dallas Tx 75275 *
**********Standard Disclaimers Apply**********

3183. Re: Top coupled resonators (more bandstop filters)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-17 23:34:50 UTC
From: john jardine <john@jjdesigns.fsnet.co.uk>
Message-ID: <cku2e3$hk0$1@news7.svr.pol.co.uk>
Source record: 22609

"Joel Kolstad" <JKolstad71HatesSpam@Yahoo.Com> wrote in message
news:iZqdnZfWCfMb8u3cRVn-jQ@comcast.com...
> I've been reading Wes Hayward's articles on coupled resonator filters, and
> I've simulated some of the results and they're what I'd expect. However,
> his examples are all bandpass filters... and I need a bandstop filter.
> Chanigng the parallel LC shunt resonators to series LC series resonators
> doesn't really work at all... although there's a perfect notch at the
> desired center frequency, the passband response is very low (tens of dB
> insertion loss) and recovers very, very slowly. It seemed as though I
just
> needed a different size coupling capacitor, but playing around some
doesn't
> improve the response significantly (for instance, if you take the example
on
> page 85 of Introduction to Radio Frequency Design and change the parallel
> resonators to series resonators, even if you change the 7.2pF top coupling
> capacitor to something astronomical such as 1nF the response is still
poor).
>
> I've ordered a copy of Zverev's book (and Zverev w/Mathei), where the
theory
> of all this comes from, but in the interim... can anyone suggest what the
> fundamental problem might be? Interesting, from looking at a few pages of
> Zverev on Amazon.Com he does have schematics of what I think I'm after
(top
> capacitor coupled series resonators to create bandstop filters).
>
> Thanks,
> ---Joel Kolstad
>
>

The side arms are OK as series resonators but your middle C needs changing
(transforming) into a C+L parallel resonator.

The way to go is firstly design a prototype low pass filter. Then transform
it to its high pass equivalent. Then transform to the band stop design.

regards
john

3184. Re: Large capacitor question

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-18 00:38:20 UTC
From: Jim Adney <jadney@vwtype3.org>
Message-ID: <qk85n0h2l9ensvdghnj5p81ppv90duuqef@4ax.com>
Source record: 22618

On Sat, 16 Oct 2004 08:58:51 GMT Prune <bobysgotguns@yahoo.com> wrote:

>I got several used tin can capacitors, 40 uF @ 3 kV, about 8 pounds each,
>probably film in oil. With such capacitors, is there any potential problem
>if I do not keep them upright during operation??

It's probably pointless to generalize, but I noticed that the data
sheets from some of our very large (more that 100 pounds) energy
storage capacitors state that they can be operated in any position
except terminal end down.

-

Jim Adney jadney@vwtype3.org
Madison, WI 53711 USA

3185. Re: What's this inductor doin'?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-18 00:52:47 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <nq46n0tdtrvsboh3po75nqcqgkb5qr7rh3@4ax.com>
Source record: 22619
Cross-posted to: sci.electronics.basics,rec.radio.amateur.homebrew

On Sun, 17 Oct 2004 23:07:14 GMT, Steve Evans
<smevans@jif-lemon.co.mars> wrote:

>
>In my limited experience over the lats 22 months Iv'e read both (well
>looked through both!) and they aer both highly infromative books. Id
>just give the edge to the ARRL version, it's more readable and has
>more coentent, but hte RAdcom version is still well worlth having on
>the shelf. I do'nt see any problem with the Brits anachronistic
>attachment to valve gear.

I is really a myth, TV sets were fully transistorized in Europe
compared to USA by several years

J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

3186. Re: Tube current sink

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-18 01:06:33 UTC
From: Wes Stewart <n7ws_@_yahoo.com>
Message-ID: <pt36n0pm4kgqoogr5tmu02ufpompkqtkf6@4ax.com>
Source record: 22620

On Sun, 17 Oct 2004 22:36:54 -0000, hexter@blazenet.net (gudmundur)
wrote:

[snip]

|More imagination than true
|ability to determine accurate sound reproduction quality.

Now now. [g] I once had a guy working for me who was supposedly an
engineer and a musician. He claimed, as do a lot of nutty
audiophiles, that he could hear the difference in speaker wire.

These are the folks that will pay $1000/meter for glorified zip cord.

Whoops sorry.... Wire with, "Two conductor Symmetrical Litzwire
construction. There are 285 isolated, multi-gauge, multi-strand, oxide
free/ Lab Grade fiber conductors with FEPï¿½ insulation. Eight conductor
symmetrical Litzwire geometry, 95 isolated, multi-gauge, multi-strand,
oxide free / Lab Grade fibers per conductor with FEPï¿½ insulation.
Synthetic and natural material wires guides ensure consistent
electricials throughout cable assembly.

Internal Dampening: Guides also act as micro-vibration damper.
Individual wires are configured in an angular displacement to optimize
the self cancellation of noise.

Insulation: Aerospace grade amphorous PTFEï¿½ and air insulation. Jacket
material is a polyurethane compound with suspended micro-particles to
reduce static build up."

What I want to know is how this wire knows the difference between
noise and hip-hop.

P.T. Barnum was right.

3187. ELECTROLYTIC CAPACITOR

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-18 04:01:13 UTC
From: David McBeth <damarg@globe.net.nz>
Message-ID: <41734000@clear.net.nz>
Source record: 22621

I would like to homebrew a 20mfd/4'000v capacitor for linear power supply.Any suggestions welcomed.Thanks,ZL2DG

3188. Re: Tube current sink

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-18 05:38:43 UTC
From: clifto <clifto@clifto.com>
Message-ID: <3g1c42-saa.ln1@remote.clifto.com>
Source record: 22622

Wes Stewart wrote:
> What I want to know is how this wire knows the difference between
> noise and hip-hop.

The electrons' hats have the brims to one side.

--
Most dying mothers say, "I love you, son," or "Take care of your sister."
Why were the last words of Kerry's mother a lecture on integrity?

3189. RMS power a misnomer (Was: CB "Swing"? (proper AM modulation))

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-18 07:24:55 UTC
From: cornelius@encompasserve.org
Message-ID: <Wmad0qNLMr0s@eisner.encompasserve.org>
Source record: 22623

In article <m7dvk050r8cs6n78tnhkd7gjq995vtaqru@4ax.com>,
Gary Schafer <gaschafer@comcast.net> writes:
> Well Chris, you got a lot of good advice and some completely wrong
> advice. Funny thing is nobody really answered your question!

[lots of useful information snipped...]

> This is how you convert average power to PEP. I say average power
> because RMS power is really a misnomer. There is no such thing as RMS
> power as so many commonly refer to. It is really AVERAGE power. It is
> derived from RMS current and RMS voltage but what you get when you
> multiply RMS voltage by RMS current or resistance is an AVERAGE value,
> not an RMS value.

I completely agree about RMS 'power'. RMS applies to a voltage or
current waveform.

Caveat: you cannot simply multiply RMS voltage by RMS current unless
you have a purely resistive load. Oddly enough, if the load is a
fixed resistance (measured as a conductance G) in parallel with a
reactance then the E_rms^2 * G (E_rms^2/R when purely resistive)
value continues to apply. When it is a fixed resistance in series
with a reactance, I_rms^2 * R continues to apply. And these extend
to the nonsinusoidal case as well, again under the restrictions
given above (fixed G in the first case, fixed R in the second).

> This may seem trivial but it becomes important when trying to convert
> from one form to another. Using the wrong notation can give you wrong
> answers.
>
> As to the above, the average voltage or current of a sine wave is 50%
> of the peak.

Actually, it is .6366 times the peak. The averaging is done continuously
over the positive half cycle of the sine wave, and is essentially the area
under the sine curve divided by the length of the half-cycle (2/3.14159,
or, if you calculated in degrees, 114.592/180).

The true average value of a sine curve is to average over a full cycle,
but is not very interesting: it's zero. The .6366 number is useful
because it is what a VOM typically measures - average DC voltage
after passing through a full-wave rectifier and before applying a scale
factor of .7071/.6366 to produce E_rms - all based on the assumption of
a sinewave input.

Average value of voltage or current waveform is of limited use; but
RMS value is directly related to the ability to deliver power to a

resistive load.

> The rms value of a sine wave is .707 of the peak voltage or current.
> If you multiply .707 (rms voltage) by .707 (rms current) you get .5 or
> 50%. This is AVERAGE. It is no longer an rms value.
>
> By the way, the definition of peak envelope power (PEP) is: "The
> average power contained in one RF cycle at the crest of the
> modulation envelope". (note that the definition says "AVERAGE power"
> not RMS power)

The average power is in fact all that is of interest in AC circuits,
and is the average over time of "instantaneous power" E*I.

If you do not use average power you have to deal with the fact that
reactances accept power during half of the cycle and then feed it
back during the other half; and for nonsinusoidal waveforms do the
same but in not so regular a pattern.

PEP is just averaging over the shortest reasonable interval (one
cycle of the carrier frequency), then keeping only the largest
such value seen. Useful to regulators because it is a measure
of your maximum capacity to interfere with other signals.

[...]

> 73
> Gary K4FMX

3190. Re: Tube current sink

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-18 08:35:45 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <BfLcd.16094$cr4.13446@edtnps84>
Source record: 22624

Behold, Wes Stewart signalled from keyed 4-1000A filament:

<snip>

> Whoops sorry.... Wire with, "Two conductor Symmetrical Litzwire
> construction. There are 285 isolated, multi-gauge, multi-strand, oxide
> free/ Lab Grade fiber conductors with FEPï¿½ insulation. Eight conductor
> symmetrical Litzwire geometry, 95 isolated, multi-gauge, multi-strand,
> oxide free / Lab Grade fibers per conductor with FEPï¿½ insulation.
> Synthetic and natural material wires guides ensure consistent
> electricials throughout cable assembly.

Did you say that in one breath? :-o

I dare you to do it again! ;-)

--
Gregg t3h g33k
"Ratings are for transistors....tubes have guidelines"
http://geek.scorpiorising.ca

3191. Re: ELECTROLYTIC CAPACITOR

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-18 08:37:17 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <1hLcd.16098$cr4.9612@edtnps84>
Source record: 22625

Check on R.A.T. - the guys there have some tesla coil to power a phono preamp or something that might need that ;-)

--
Gregg t3h g33k
"Ratings are for transistors....tubes have guidelines"
http://geek.scorpiorising.ca

3192. Re: RMS power a misnomer (Was: CB "Swing"? (proper AM modulation))

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-18 10:58:59 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <fl77n01omob995v4d9901tii9fur16m9fa@4ax.com>
Source record: 22626

On 18 Oct 2004 02:24:55 -0500, cornelius@encompasserve.org (George Cornelius) wrote:

>I completely agree about RMS 'power'. RMS applies to a voltage or >current waveform.

I guess you're right, but when we speak of RMS power (sic) what we actually envisage is the amount of AC power dissipated in a resistive load that gives rise to the same heating effect as the equivalent amount of DC power. Sorry if that's not well put, but you no doubt get my drift...
So it may be a misnomer, but that doesn't make it useless.
--

"What is now proved was once only imagin'd." - William Blake, 1793.

3193. Re: Tube current sink

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-18 11:29:36 UTC
From: Prune <bobysgotguns@yahoo.com>
Message-ID: <Xns95862DB84E272Gormenghast@64.59.144.76>
Source record: 22627

First, thanks for the reply. Second, I apologize for the length of this reply.

> So, 1080 watts of heat dissapation or more just to hear high
> frequencies???

Hey, if I'm paying for it, why not. You sound like one of those nutty environmental activists. You know the types, that would force decreased energy use down people's throats so that their pet projects like wind and solar power can provide enough energy, thus completely ignoring the fact that most of the world population in third world and developing countries will have its per capita energy use jump orders of magnitude to approach that of developed countries in the coming decades -- you'd need to cover the planet with windmills to provide enough. And for what? Even if fusion doesn't work out (and aparently the ITER project members including the US, EU, Japan, Russia, Singapore and others think it will, and have already planned out the first over-unity reactor to begin construction within a few years; see iter.org), the existing technology of fission breeder reactors can provide essentially unlimited power even with the current minable supply of ~7x10^6 tonnes of uranium. Energy shortages are artificial and politically imposed.

> that there are several types of tweeter choices that require no energy
> other than audio drive that would still perform 10 times better than
> your ears ability to determine distortion, and at least 5 times better

Where did that number come from? THD measurements generally do not correlate with human perception. For example, see http://www.gedlee.com/distortion_perception.htm and the numbers in the table there. Better yet, check out their papers in the Audio Engineering Society; you can find other similar developments by searching the Web. The specific types of distortion are far more important than some summary statistic like THD or IMD. The analogy is a population with an unusual distribution, and using an arithmetic mean to describe it -- say some third world village, and 50 people in it make $1/day, and 1 makes $100. Obvioiusly the mean, being almost $3, is a pretty poor descriptor of rich the villagers are. The point is that this far there is a lack of a good metric correlating fully with human perception of audio quality. This is why, for example, when some institution or company is developing a new audio (likewise for video) compression codec, blind testing with human subjects is always performed during evaluation. I'm not to say that there isn't tons of snake oil and over-the-top nonsense and scams caused by marketing departments in high-end audio business (that's why I've built every component of my system except the DVD player). But the people that go to the other extreme and say that everything sounds the same are also

wrong. Initially people thought jitter in early CD players was a non-issue, because being measured in picoseconds, it was thought to be imperceptible. This turned out completely wrong, and the technology had to be corrected. Look now at TI and Cirrus and Analog Devices datasheets for DACs and ASRCs, and they mention jitter quite a lot. Indeed, it turned out that poor disc mastering can introduce jitter that sounded so bad that recently under complaints from artists Sony changed some manufacturing steps to eliminate the problem. Another example of people not measuring the right things is that discontinuities in the phase distortion screw up perception of direction. And even ultra-conservative audio engineers like D. Self has admitted that electrolytic capacitors cause distortion, and that thermal distortion exists at least in integrated circuit amplifiers (and this is an example of a type of distortion that does not affect THD and IMD numbers). And so on. Finally, it is of note that a single blind test that shows no result is no proof that a difference is inaudible. For statistical significance, a number of trials is needed and there are very very few examples of such studies in audio perception.

> than any pickup devices ability to change input sounds into electrical
> output.

Yes. But why add more distortion than there already is? Also, formats like SACD and DVD-Audio are often digitized directly from the original master tapes (in the case of non-new recordings), thus doing away with some of the damage that has been done. These formats also use 24-bit encoding to deal with the problem that 16-bit audio does not achieve the full dynamic range that the ear is capable of perceiving (technically 16 bits are enough, but in practice actual 16-bit equipment is not able to achieve the theoretical maximum).

> If you really want to waste energy as heat dissapation, and impress
> your audiopill lacky buddies

LOL, I have no audiophile buddies, other than some people I argue with on online forums. The funny thing is that usually I'm arguing the other side, the skeptic. The truth is, I may very well not be able to tell a difference between this and a quality dynamic or electrostatic tweeter. On the other hand, I'm sure decent tweeters existed during the 1980s when Hill's Plasmatronic speakers were made, and Hill is a PhD working for the military on plasma and laser reasearch, so I think he's got his feet firmly planted in the real world. Also, how do I know that even if some change I make to my system that by itself makes a difference so small I can't hear it, multiple changes' cumulative effect won't be detectable? And finally, even if it makes no difference, it's the coolness factor of outrageous upgrades (someone called it audiophile equipment fetishism). Even though I know for sure I couldn't hear the difference between cables, I still made interconnects out of fine silver and teflon. I know full well any conductor will sound the same, and that dielectric absorption is not an issue at audio frequencies, so the teflon is pointless. But that's not the point. And even with cables, it turns out resistance is not all that matters. For example, consider the case of a passive preamplifier (or a

potentiometer volume control at the output stage of the source) feeding a power amp with a not very high input impedance. A number of commercial interconnects have sufficient capacitance to affect the audible frequency response in this situation.

> use a 304TL, or 304TH. 300 watts of plate capacity

I don't need that much dissipation ability. What about a 152TL so I can save some money? Would that have sufficent perveance? In the end, all I care about is linearity within a range of ten or so mA around the operating point of about 180 mA. Would these types of triodes be better than pentodes? And finally, I've seen these TL and TH suffixes often, but I never figured out what's the difference (the datasheets look about the same).

> You should turn yourself in to the EnergyStar folks, and do about 100
> hours of community service. The crime??? More imagination than true
> ability to determine accurate sound reproduction quality.

You should join David Suzuki's cronies or Green Peace Terrorists Inc. or something :p

3194. Re: RMS power a misnomer (Was: CB "Swing"? (proper AM modulation))

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-18 18:15:43 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10n822k3oh43l70@corp.supernews.com>
Source record: 22628

I'm not sure who the "we" is in your statement, but it certainly doesn't include people who understand the concepts and mathematics involved. The problem with your approach is that there *is* such as thing as RMS power (as I described in an earlier posting), and it is *not* the amount that gives the same heating effect as the same amount of DC power. So while you may think of RMS power in this way, your thinking is wrong.

I can calculate my RMS speed in going from point A to point B. But it isn't equal to the distance I went divided by the time it took to get there (unless, of course, I went the whole way at a constant speed) -- for exactly the same reason that the RMS power isn't the equivalent heating power. You can think of the RMS speed as being the distance divided by the time, but it isn't, and your thinking doesn't make it so. And that also doesn't make the RMS speed a useful value.

Roy Lewallen, W7EL

Paul Burridge wrote:

> I guess you're right, but when we speak of RMS power (sic) what we
> actually envisage is the amount of AC power dissipated in a resistive
> load that gives rise to the same heating effect as the equivalent
> amount of DC power. Sorry if that's not well put, but you no doubt get
> my drift...
> So it may be a misnomer, but that doesn't make it useless.

3195. Re: Tube current sink

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-18 18:21:25 UTC
From: hexter@blazenet.net
Message-ID: <10n82d5kql5bs33@corp.supernews.com>
Source record: 22629

In article <Xns9584D9015D441Gormenghast@64.59.144.76>, bobysgotguns@yahoo.com says...

Sorry for the top post, but here is the TL/TH deal

TL triode low gain, generally about 10
TH triode high gain, generally 40 to 100
Why the 304TL or 304TH, and not the others?? The 304TH is 4 75TH triodes in parallel in one bottle, and the perveance is so far above and beyond anything except perhaps a television horizontal output sweep tube tetrode, or pentode. The sweep tubes probably won't have enough dissapation unless you parallel them up.

>
>What's the best tube type to use for a voltage controlled current sink,
>with respect to linearity?
>
>I am building plasma tweeters, with a DC glow discharge modulated by audio
>(similar to US patent 4,219,705, but I'm using microhollow discharges
>(MHCD) as cathodes for the larger discharge to remove cathode fall
>instabilities; this technique was unknown during the time of that patent).
>My power supply is 2700 V at 400 mA (200 mA for each of two channels for a
>stereo setup), ripple filtered to 0.01 V. I'm hoping to have the discharge
>drop most of the voltage, and the driving device a lesser portion. The
>driver needs to be a voltage controlled current sink at the plasma cathode
>(the plasma anode is the high voltage). Since the audio modulation is only
>a few percent of the bias, less than 20 mA, essentially I'm concerned with
>linearity in a small range around the average operating point. I need to
>know what's the best tube type to use in terms of the sound quality, and in
>what configuration (grounded cathode or grid, etc.). Most current drives
>use pentodes, but I've been told a triode is more linear.

3196. Re: Tube current sink

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-18 19:55:45 UTC
From: John Franklin <jpfrank@peoplepc.com>
Message-ID: <5dVcd.584$5i5.23@newsread2.news.atl.earthlink.net>
Source record: 22630

Hip Hop IS NOISE!!!!!!!! Yes good ole PT was right.

> Now now. [g] I once had a guy working for me who was supposedly an
> engineer and a musician. He claimed, as do a lot of nutty
> audiophiles, that he could hear the difference in speaker wire.
>
> These are the folks that will pay $1000/meter for glorified zip cord.
>
> Whoops sorry.... Wire with, "Two conductor Symmetrical Litzwire
> construction. There are 285 isolated, multi-gauge, multi-strand, oxide
> free/ Lab Grade fiber conductors with FEP® insulation. Eight conductor
> symmetrical Litzwire geometry, 95 isolated, multi-gauge, multi-strand,
> oxide free / Lab Grade fibers per conductor with FEP® insulation.
> Synthetic and natural material wires guides ensure consistent
> electricials throughout cable assembly.
>
> Internal Dampening: Guides also act as micro-vibration damper.
> Individual wires are configured in an angular displacement to optimize
> the self cancellation of noise.
>
> Insulation: Aerospace grade amphorous PTFE® and air insulation. Jacket
> material is a polyurethane compound with suspended micro-particles to
> reduce static build up."
>
> What I want to know is how this wire knows the difference between
> noise and hip-hop.
>
> P.T. Barnum was right.

3197. Re: What's this inductor doin'?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-18 20:25:09 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <cl1906$q99$1@newshost.mot.com>
Source record: 22631
Cross-posted to: sci.electronics.basics,rec.radio.amateur.homebrew

"Airy R. Bean" <me@privacy.net> wrote in message
news:2tfcfdF1v0f9kU1@uni-berlin.de...
> I'm not interested in someone else's engine - that's not the
> way of the _REAL_ Radio Ham
>
> It is _ALWAYS_ worth the effort to do things for yourself - that
> is the essence of _REAL_ Ham Radio - it is the CBer and the
> CBer-Masquerading-As-A-Radio-Ham who buy things
> off-the -shelf!
>
> "Paul Burridge" <pb@notthisbit.osiris1.co.uk> wrote in message
> news:kft4n0hq3qhnnum7g8e8t9egksroki493c@4ax.com...
> > On Sun, 17 Oct 2004 13:52:17 +0100, "Airy R. Bean" <me@privacy.net>
> > wrote:
> >
> > >Question - what is the internal modelling technique used
> > >by these various programs, and can we produce our own package?

Steve (Evans),
Correct me if I am wrong (like I need to say this here, eh?)
I believe the underlying basis is the collection of loop / node equations used (by Engineers) to model circuits. We know the behavior of resistors, inductors and capacitors and have mathematical models for them. To this we add the active devices, etc. and develop an "engine" which does all the calculations for us. [[we used to do them by hand/slide rule -- yes, I am included in this we]]. These loop and node equations provide us with a mathematical model of the behavior of electronic circuits. If done carefully, this is a general purpose model which applies to all the situations for which our component models are valid.
Some time later there were bare engines into which we had to type the part values and node numbers (the sane things you can see in printouts from Spice). As computers got more powerful, schematic entry was developed. I believe these programs to be very useful, but as with any model or simulation, it is best to understand the limitations.
Thre is an alternate method. It is also possible to derive equations for each type of situation and use these calculations each time you need to solve that type of problem. I am sure you are familiar with the equations for things such as parallel capacitors and resonance and so forth. These are specific solutions of the properties of components in those specific circuits.
From some postings here I get the idea that Reg is providing various "calculators" in the form of computer programs for hams to use to solve/design various circuits. Not one thing wrong with either this or the

general type of software...Except that the limitations argument applies to all calculations and it is our responsibility to determine whether or not our situation is adequately covered by a particular math model.
I am also not familiar with the programs mentioned here (except to have heard the names), except for OrCad's PSpice ver 9, which is relatively easy to use (for me) and provides results adequate for my purposes--not to mention the fact that I was given a CD with the student sample version on it). I was introduced to is by the department chair at the county college where I was asked to teach some classes and like it. I just draw a circuit and can then do various forms of analysis. I modeled a recent project and all worked the first time when I assembled the one and only unit. It was a simple RS-232 to Kenwood TH-F6A handheld interface.

I agree 100% with Reg in that a circuit simulation program is not intended to *teach* circuit theory, That needs to come first, then the simulation tool can help us gain a better understanding by letting us try out the things we learn and "see" them happen with out having to collect all the parts and wire it up. I find it much faster to "assemble" a PSpice circuit and test my design ideas than go into my basement and collecting all the parts.

BTW it *IS* the cap AND diode which cause the negative voltage in the coupling circuit described so long ago...

Airy,
While I applaud your desire to understand how these "engines" work and perhaps build your own, I suggest that it is a most formidable task by any measure. If you understand the concept of loop and node equations then you know the math. Now figure out how to write software to handle any circuit and you have it...then there is the user interface...(what I believe is the most important [and most difficult to do well] part of any program)

73,
--
Steve N, K,9;d, c. i My email has no u's.

3198. Re: Tube current sink

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-18 21:26:06 UTC
From: munged@address.com
Message-ID: <1098134766.611432@cswreg.cos.agilent.com>
Source record: 22632

Wes Stewart <n7ws_@_yahoo.com> wrote:
> Now now. [g] I once had a guy working for me who was supposedly an
> engineer and a musician. He claimed, as do a lot of nutty
> audiophiles, that he could hear the difference in speaker wire.

I used to work with a guy that said he could hear the difference between
gold plated and tin plated RCA connectors.

> These are the folks that will pay $1000/meter for glorified zip cord.

Tell them to check out http://www.essentialsound.com/ for the ultimate
in power cord technology.

Don K6LTS

3199. Re: Tube current sink

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-18 21:52:59 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10n8epk4ab12s22@corp.supernews.com>
Source record: 22633

munged@address.com wrote:
> Wes Stewart <n7ws_@_yahoo.com> wrote:
>
>>Now now. [g] I once had a guy working for me who was supposedly an
>>engineer and a musician. He claimed, as do a lot of nutty
>>audiophiles, that he could hear the difference in speaker wire.
>
>
> I used to work with a guy that said he could hear the difference between
> gold plated and tin plated RCA connectors.
>
>
>>These are the folks that will pay $1000/meter for glorified zip cord.
>
>
> Tell them to check out http://www.essentialsound.com/ for the ultimate
> in power cord technology.
>
> Don K6LTS
>
Oh, honestly. Those parts aren't even dipped in LN2 ferchrissakes!

http://www.jenalabs.com/.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

3200. Re: What's this inductor doin'?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-18 23:27:55 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10n8kc0n5hek882@corp.supernews.com>
Source record: 22634
Cross-posted to: sci.electronics.basics,rec.radio.amateur.homebrew

When solving node/loop equations manually, it's generally necessary to resort to phasor analysis with its underlying assumptions, or Laplace transforms. The latter does have the capability of producing a time response. But the solution requires finding the inverse transform, a process similar to integration in that there's no single direct rule, and often it's impossible to find a solution except for simple cases.

Computers can be programmed to solve complex problems numerically, using fundamental time-domain current/voltage relationships (such as the relationship V(t) = L di/dt for an inductor, or even more generally, V(t) = L di/dt + I dl/dt for a time-varying inductance). This is basically what SPICE does, and it's able to easily solve problems which are simply not possible to do manually, either because of the enormous time that would be required, or the impossibility of finding a reverse Laplace transform -- or its equivalent, the solution to a high-order differential equation if Laplace transforms aren't used. A google search on 'SPICE "time step" equations' brought a number of hits. I'm sure you can find an adequate explanation of the inner workings of SPICE among them.

Roy Lewallen, W7EL

Steve Nosko wrote:
>. . .
> Correct me if I am wrong (like I need to say this here, eh?)
> I believe the underlying basis is the collection of loop / node equations
> used (by Engineers) to model circuits. We know the behavior of resistors,
> inductors and capacitors and have mathematical models for them. To this we
> add the active devices, etc. and develop an "engine" which does all the
> calculations for us. [[we used to do them by hand/slide rule -- yes, I am
> included in this we]]. These loop and node equations provide us with a
> mathematical model of the behavior of electronic circuits. If done
> carefully, this is a general purpose model which applies to all the
> situations for which our component models are valid.
> Some time later there were bare engines into which we had to type the part
> values and node numbers (the sane things you can see in printouts from
> Spice). As computers got more powerful, schematic entry was developed. I
> believe these programs to be very useful, but as with any model or
> simulation, it is best to understand the limitations.
> Thre is an alternate method. It is also possible to derive equations for
> each type of situation and use these calculations each time you need to
> solve that type of problem. I am sure you are familiar with the equations
> for things such as parallel capacitors and resonance and so forth. These
> are specific solutions of the properties of components in those specific
> circuits.

> . . .

3201. Re: RMS power a misnomer (Was: CB "Swing"? (proper AM modulation))

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-18 23:44:47 UTC
From: k9sqg@aol.com
Message-ID: <20041018194447.03318.00002318@mb-m17.aol.com>
Source record: 22635

While the discussion is interesting, one needs to consider the purpose. For a pure sine wave, certain relationships are stable and hold true. For a complex waveform, like voice, the relationship between peak power and average/RMS power not a straightforward relationship.

73s,

Evan

3202. Re: Large capacitor question

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-19 01:17:22 UTC
From: Terry <tsanford@nf.sympatico.ca>
Message-ID: <uXZcd.20386$J16.702227@news20.bellglobal.com>
Source record: 22637

"John Walton" <jdwalton@comcast.net> wrote in message
news:u-KdnSCeaPPvh-zcRVn-1A@comcast.com...
> If you're General Electric you punch them full of holes and throw them in
> the Hudson River north of Poughkeepsie.
>
Oh you mean the ones with PCBs in them?

3203. Re: ELECTROLYTIC CAPACITOR

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-19 01:18:11 UTC
From: kolesnik@sbcglobal.net
Message-ID: <nXZcd.7520$q%7.1977@newssvr11.news.prodigy.com>
Source record: 22636

If you've never built capacitors starting out with such a high voltage is like trying to enter the Olympics before you've learned to crawl. I'd suggest starting out small but better yet find some surplus lower voltage units and put them in series with equalization.
73
Hank WD5JFR

"David McBeth" <damarg@globe.net.nz> wrote in message news:41734000@clear.net.nz...
> I would like to homebrew a 20mfd/4'000v capacitor for linear power
> supply.Any suggestions welcomed.Thanks,ZL2DG
>
>

3204. Re: ELECTROLYTIC CAPACITOR

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-19 02:29:06 UTC
From: fmmck@aol.com
Message-ID: <20041018222906.07582.00002101@mb-m11.aol.com>
Source record: 22638

<< I would like to homebrew a 20mfd/4'000v capacitor for linear power supply. >>

David-

My first thought was to take ten 200mfd/450v electrolytics and wire them in series, each capacitor with a parallel resistor to ensure equal voltage division.

The problem is that you may not find a single electrolytic capacitor with that high a voltage. Even if an electrolytic's voltage is determined by stressing them to a higher value, there may be a limit well below 4KV.

You need to do a lot of research in physics and/or chemistry if you're serious about homebrewing such an electrolytic. The usual approach is to construct such a high voltage capacitor using a porous oil-soaked dielectric material ("oil filled capacitor").

73, Fred, K4DII

3205. Radio Shack DX-394 Index of Mods Updated

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-19 02:59:39 UTC
From: Tom Holden <holden_family@sympatico.ca>
Message-ID: <Qj%cd.21485$J16.751759@news20.bellglobal.com>
Source record: 22639
Cross-posted to:
rec.radio.shortwave,alt.radio.scanner,alt.radio.scanner.uk,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

Over 80 mods now listed plus a dozen on the To Do or Wish List. More mods than for any other general coverage receiver! Thoroughly documented.

If you like to tinker with radios, I know of no other recent model that lends itself to as much fun in this arena as the DX-394. Great platform for learning radio-electronics. Always 1 or more FA on eBay.

Active & friendly user community now with over 700 members. Some members are keen short wave listeners; others are into AM DXing and a few enjoy long wave. Many experiment with
antennas and some are ardent modifiers - customising and souping up the rig as hot rodders would do with cars. You'll find lots to interest you and help get the most out of your radio.

All here at:
http://groups.yahoo.com/group/RADIOSHACKDX394/

It has the most complete collection of modifications, usage tips, links to related websites, documentation, and photos along with a user survey and a message forum (2877 messages archived) to help you get the most pleasure and DX out of your Realistic / Radio Shack DX-394, DX394, DX 394.

Subscribe on line or email: RADIOSHACKDX394-subscribe@yahoogroups.com

73, Tom

3206. Re: RMS power a misnomer (Was: CB "Swing"? (proper AM modulation))

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-19 07:02:50 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10n9f0vqdt18j29@corp.supernews.com>
Source record: 22640

Bill Turner wrote:
> On Mon, 18 Oct 2004 11:15:43 -0700, Roy Lewallen <w7el@eznec.com> wrote:
>
>
>>The
>>problem with your approach is that there *is* such as thing as RMS power
>>(as I described in an earlier posting), and it is *not* the amount that
>>gives the same heating effect as the same amount of DC power. So while
>>you may think of RMS power in this way, your thinking is wrong.
>
>
> ----------
>
> Let me ask one more question and then I'll shut up. Actually, three.
>
> Suppose you have a 100 ohm resistor and you apply a 100 VRMS sine wave
> to it. Will 1 amp of RMS current flow? I would think yes, but after
> the previous discussions, I'm not taking anything for granted. :-)

Yes.

> So if you have 100 VRMS and 1 ARMS, how much power is the resistor
> dissipating? Just pure power in terms of heat generation, forget
> whether it's RMS or anything else. How many watts?

100 watts. This is the average power. (The RMS power is about 122.5 watts, if I did the integration right -- corrections are welcome. RMS power is calculated from the instantaneous power exactly like RMS voltage or current is calculated from instantaneous voltage or current.)

> And now the real question: How much DC voltage would you have to apply
> to the resistor to get exactly the same power dissipation?

100 volts. The dissipation would be 100 watts.

> Breathlessly awaiting,

I would hope that any Technician or higher class amateur could immediately answer those questions, no waiting required.

The problem people seem to be having is the feeling (or, I'm afraid in some cases, certainty) that an RMS value of a quantity times an RMS value of another quantity HAS TO BE the RMS value of the product of the quantities. But it isn't. Here's something you can check on your calculator: Take sin(5 degrees) times sin(10 degrees). Is the product of the two equal to sin(50 degrees)? While the product assumption works for some functions, such as square and square root for example, it doesn't

work for others, like RMS and sine.

Unfortunately, if you (any reader, not Bill personally) aren't able to follow the mathematics involved in calculating RMS and average values (which I posted in brief form a short while ago), this is bound to remain something of a mystery to you, and it looks like you're left with four choices:

1. Hang tightly to a mistaken idea about the meaning of RMS and average, and ignore or resist any explanation that contradicts them. This will include explanations in any textbook.

2. Learn enough math to understand the definitions of average and RMS, which should make the explanations understandable.

3. Assume that I and the textbook authors know what we're talking about and believe us, without really understanding why.

4. Find a textbook oriented toward people without a very strong math background, which hopefully can explain it in terms you can understand.

The fourth choice is probably the best for people who are really interested in learning and can't devote the time necessary to learn the math. The main problem with the first choice is that you'll be likely to pass the misconceptions on to others. But the choice is yours.

Roy Lewallen, W7EL

3207. Re: RMS power a misnomer (Was: CB "Swing"? (proper AM modulation))

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-19 08:39:57 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10n9kn39sksfad@corp.supernews.com>
Source record: 22641

Let me add one more comment that will hopefully help in understanding this.

I think I might have identified another misconception that might be contributing to the confusion. That misconception is that the RMS value of a waveform is the "equivalent" or "heating" value. This leads to the mistaken notion that the RMS value of the power must be the "equivalent" or "heating" value.

Voltage and current, by themselves, don't do any heating. Heating takes power. And the amount of heating is the determined by the average power. If two different power waveforms have the same average value, they'll create the same amount of heat and otherwise do the same amount of work, even if their RMS values are different.

So what's the whole thing about RMS? The only importance of RMS is that when you multiply the RMS values of two waveforms together (such as V * V, I * I, or V * I), you get the average of the product of the two. That is, RMS(i) * RMS(v) = Avg(i * v), where i and v are the instantaneous values of the current and voltage, and i * v is the instantaneous power. Likewise, RMS(v) * RMS(v) / R = Avg(v*v/R) and RMS(i) * RMS(i) * R = Avg(i*i*R). In fact, RMS(x) * RMS(y) = Avg(x * y) where x and y can be any periodic waveforms or quantities. (I derived these mathematically in an earlier posting.) So we calculate the RMS values of voltage and current only so we can use them to calculate the average power -- not because the RMS value of any waveform is its "equivalent" or "heating" value -- which it isn't.

Roy Lewallen, W7EL

3208. Re: RMS power a misnomer (Was: CB "Swing"? (proper AM modulation))

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-19 13:49:01 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10na6q2jmt0tp63@corp.supernews.com>
Source record: 22642

Bill Turner wrote:
> On Tue, 19 Oct 2004 01:39:57 -0700, Roy Lewallen <w7el@eznec.com> wrote:
>
>
>>Voltage and current, by themselves, don't do any heating.
>
>
> ----------
>
> I don't follow you on this. Voltage can be present without any current,
> but current can only flow if voltage is present, so what is meant by
> "current by itself"?
>
> --
> Bill W6WRT
>
An electron beam in a vacuum can flow current without any voltage drop,
as can a superconductor. Granted, these are not everyday occurrences,
but they _do_ occur.

The real point that Roy is talking about is that whenever a voltage drop
occurs simultaneously with a current there is power being consumed --
and if it isn't coming out of the system as some other form of power
then it's being dissipated as heat.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

3209. Re: RMS power a misnomer (Was: CB "Swing"? (proper AM modulation))

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-19 15:11:28 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <8cban056u89a4tm29p1pe9nndvd10ptjsu@4ax.com>
Source record: 22643

On Tue, 19 Oct 2004 06:32:55 -0700, Bill Turner <noway@nohow.com>
wrote:

>Well. The answer you gave is exactly the answer I would have given, but
>you say my answer is wrong.
>
>I understand about deriving the RMS power from the instantaneous power
>in the same way that RMS voltage or current is derived, I just don't
>accept the definition. It's been taught the other way all my life, even
>though you say it's incorrect. I see your point, I just don't accept
>it.

I agree. On the one had we've had a pillar we'd always accepted
knocked away by Roy; on the other hand, it was Roy who knocked it
away. Had it been anyone else I'd have dismissed them as a nutter.

>I will QRT for now, but thanks for taking the time to explain. I mean
>that sincerely and I do respect your point of view.

As I'm sure we all do. If this is a misconception it must be an
extremely widespread one. I've found a reference to RMS power and how
it's calculated in 'Practical Radio Frequency Test & Measurement'
(Newnes) and have posted the relevant page here:

http://www.burridge8333.fsbusiness.co.uk/cvcvcv.gif

If we are wrong, it appears we're not alone...

--

"What is now proved was once only imagin'd." - William Blake, 1793.

3210. Re: RMS power a misnomer (Was: CB "Swing"? (proper AM modulation))

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-19 19:11:46 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10napno6fk4t49b@corp.supernews.com>
Source record: 22644

Sure, current can be present without voltage (in a short circuit) just as easily as voltage can be present without current (in an open circuit). But what I meant was that the value of voltage doesn't determine heating, nor does the value of current. It's the value of power that does.

Roy Lewallen, W7EL

Bill Turner wrote:
> On Tue, 19 Oct 2004 01:39:57 -0700, Roy Lewallen <w7el@eznec.com> wrote:
>
>
>>Voltage and current, by themselves, don't do any heating.
>
>
> ----------
>
> I don't follow you on this. Voltage can be present without any current,
> but current can only flow if voltage is present, so what is meant by
> "current by itself"?
>
> --
> Bill W6WRT
>

3211. New On-Line Hamfest

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-19 19:15:05 UTC
From: Kb2sin <kb2sin@stny.rr.com>
Message-ID: <ZIddd.311474$bp1.22002@twister.nyroc.rr.com>
Source record: 22645

Check it out!!! I have set up a New Group for Amateur Radio Operators around the World! A Place where Amateur Radio Operators can Sell, Trade, or Give Away their unwanted Equipment. Here is the Url: http://groups.yahoo.com/group/northeast_hamfest/

Join today!!!!!
73's de kb2sin

--

3212. Re: RMS power a misnomer (Was: CB "Swing"? (proper AM modulation))

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-19 19:16:52 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10naq1ap34jfje9@corp.supernews.com>
Source record: 22646

Bill Turner wrote:

> On Tue, 19 Oct 2004 00:02:50 -0700, Roy Lewallen <w7el@eznec.com> wrote:
>
>
>>>And now the real question: How much DC voltage would you have to apply
>>>to the resistor to get exactly the same power dissipation?
>>
>>100 volts. The dissipation would be 100 watts.
>
>
> ____
>
> Well. The answer you gave is exactly the answer I would have given, but
> you say my answer is wrong.

Where have I said that's wrong? Of course it's not.

> I understand about deriving the RMS power from the instantaneous power
> in the same way that RMS voltage or current is derived, I just don't
> accept the definition. It's been taught the other way all my life, even
> though you say it's incorrect. I see your point, I just don't accept
> it.

I have no idea who taught that to you, since the definition of RMS is in its very name (the square Root of the Mean of the Square of the function). It's your choice to ignore the accepted definition. I can only hope you don't teach your mistaken idea to others, who will then someday say the same thing.

> I will QRT for now, but thanks for taking the time to explain. I mean
> that sincerely and I do respect your point of view.

You're welcome. The only reason I've taken the time for these postings is in the hope that it will help people understand and learn. Even if it hasn't worked for you, I hope some other readers have benefitted.

Roy Lewallen, W7EL

3213. Re: RMS power a misnomer (Was: CB "Swing"? (proper AM modulation))

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-19 19:20:29 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10naq83kjo2sdfd@corp.supernews.com>
Source record: 22647

I really appreciate the compliment, and will do my best to try and
deserve it.

Please look very carefully at the diagram at the URL you've posted, and
notice that it's a voltage waveform (see the labeling of the vertical
axis). Then read the text very carefully. Neither the diagram nor the
text contradict what I've said. If you think it does, post the reason
why, and I'll try to clear it up.

Roy Lewallen, W7EL

Paul Burridge wrote:

> On Tue, 19 Oct 2004 06:32:55 -0700, Bill Turner <noway@nohow.com>
> wrote:
>
>
>>Well. The answer you gave is exactly the answer I would have given, but
>>you say my answer is wrong.
>>
>>I understand about deriving the RMS power from the instantaneous power
>>in the same way that RMS voltage or current is derived, I just don't
>>accept the definition. It's been taught the other way all my life, even
>>though you say it's incorrect. I see your point, I just don't accept
>>it.
>
>
> I agree. On the one had we've had a pillar we'd always accepted
> knocked away by Roy; on the other hand, it was Roy who knocked it
> away. Had it been anyone else I'd have dismissed them as a nutter.
>
>
>>I will QRT for now, but thanks for taking the time to explain. I mean
>>that sincerely and I do respect your point of view.
>
>
> As I'm sure we all do. If this is a misconception it must be an
> extremely widespread one. I've found a reference to RMS power and how
> it's calculated in 'Practical Radio Frequency Test & Measurement'
> (Newnes) and have posted the relevant page here:
>
> http://www.burridge8333.fsbusiness.co.uk/cvcvcv.gif
>
> If we are wrong, it appears we're not alone...
>

3214. Re: RMS power a misnomer (Was: CB "Swing"? (proper AM modulation))

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-19 19:24:47 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10naqg5hjtidk66@corp.supernews.com>
Source record: 22498

My statements about voltage and current referred to ideal circuits, which are immensely useful in gaining understanding of fundamental circuit operation. One can argue for a long time about how perfect a real circuit can be made, and I won't get into that. I hope I made my point without the need to.

Roy Lewallen, W7EL

Bill Turner wrote:

> On Tue, 19 Oct 2004 06:49:01 -0700, Tim Wescott
> <tim@wescottnospamdesign.com> wrote:
>
>
>>An electron beam in a vacuum can flow current without any voltage drop,
>>as can a superconductor.
>
>
> ____
>
> I can't argue the superconductor, but in a vacuum tube there must be a
> source of voltage to cause the current to flow. Even if you are talking
> about the "contact potential" caused by a heated cathode, there is still
> voltage present, isn't there? And of course, the anode voltage causes
> current to flow there too.
>
> --
> Bill W6WRT
>

3215. 2.4Ghz PA module recommendation required

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-19 22:19:41 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <2l4bn0pj64am8a23ic4drkil4mcjipp6qk@4ax.com>
Source record: 22499
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

Hi all,

Any suggestions? Thinking in terms of maybe 10W out / 200mW in or
thereabouts.

Thanks,

p.
--

"What is now proved was once only imagin'd." - William Blake, 1793.

3216. Re: RMS power a misnomer (Was: CB "Swing"? (proper AM modulation))

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-19 22:27:56 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <lt4bn0d4vnbmhqf1e8ahgkor7rvl9uq4io@4ax.com>
Source record: 22500

On Tue, 19 Oct 2004 12:20:29 -0700, Roy Lewallen <w7el@eznec.com>
wrote:

>I really appreciate the compliment, and will do my best to try and
>deserve it.
>
>Please look very carefully at the diagram at the URL you've posted, and
>notice that it's a voltage waveform (see the labeling of the vertical
>axis). Then read the text very carefully. Neither the diagram nor the
>text contradict what I've said. If you think it does, post the reason
>why, and I'll try to clear it up.

Okay, here's the bit that you seem to take exception to (it's spread
over both pages):

"We can define the real power in an AC circuit as the equivalent DC
power that would produce the same amout of heating in a resistive load
as the applied AC waveform. [In a purely resistive load] we can use
the root mean square (RMS) values (Vrms and Irms) to find this
equivalent or RMS power."

Then the equation "P = Vrms x Irms"

Where "P" here explicitly refers to RMS power.

This is something you have stated clearly that you disagree with.
--

"What is now proved was once only imagin'd." - William Blake, 1793.

3217. Re: 2.4Ghz PA module recommendation required

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-19 23:26:17 UTC
From: Joerg <notthisjoergsch@removethispacbell.net>
Message-ID: <tohdd.32614$QJ3.18176@newssvr21.news.prodigy.com>
Source record: 22501
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

Hi Paul,

Motorola used to produce modules like that. I don't know if they still
do, or if it was all transferred to one of their spin-offs.

Regards, Joerg

http://www.analogconsultants.com

3218. Re: RMS power a misnomer (Was: CB "Swing"? (proper AM modulation))

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-19 23:33:53 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10nb937ju41nee6@corp.supernews.com>
Source record: 22502

Paul, I apologize. My browser showed only the first of the two pages, and I didn't realize that the second was there. While looking for the quotation I found that the second page was simply scrolled off screen.

Yes, there is one thing (on that second page) I do disagree with the author on, that the equivalent power, the product of Vrms and Irms, is "RMS" power. I did a brief web search to find out who the author was so I could contact him about that, and discovered that it's Joe Carr. Unfortunately, he died a short time ago.

Maybe my suggestion about looking in non-mathematical texts for an explanation wasn't such a good idea. It appears that some of the authors of those texts don't fully understand the math either. I'll have to say that you certainly have provided some evidence as to how widespread the misconception is. Next time I'm downtown at Powell's Technical Bookstore, I'll leaf through a few volumes oriented toward technicians and see just how bad it is. All I have on my bookshelf in the way of basic circuit analysis texts is two (Pearson and Maler, and Van Valkenburg) which are intended for beginning engineering students, and they of course both have it right. A popular elementary physics text which I have, Weidner & Sells, _Elementary Classical Physics_, Vol. 2, succinctly summarizes (p. 913): "Thus, the average rate at which thermal energy is dissipated in the resistor is the product of the rms voltage across it and the rms current through it." This follows immediately below an equation showing the calculation of pav from the classical definition of average which I posted some time ago.

In response to the question about Vrms, Irms, and equivalent power, I said that when Vrms = 100 volts and Irms = 1 amp, Pavg = 100 watts and Prms is about 122.5 watts. I haven't had any previous occasion to calculate RMS power, so I might have made a mistake. According to my calculation, for sinusoidal voltage and current, the RMS power equals the average power (which is Vrms X Irms when the load is resistive) times the square root of 1.5. Surely some of the readers of this group can handle the calculus involved in the calculation -- it's at the level taught to freshman engineering students, and now often taught in high school. The calculation isn't hard, but it's a little tedious, so there's ample opportunity to make a mistake. I'd very much appreciate if one of you would take a few minutes and double-check my calculation. Or check it with Mathcad or a similar program. I'll be glad to get you started if you'll email me. And I'll be glad to post a correction if I did make a mistake.

Roy Lewallen, W7EL

Paul Burridge wrote:

> On Tue, 19 Oct 2004 12:20:29 -0700, Roy Lewallen <w7el@eznec.com>
> wrote:
>
>
>>I really appreciate the compliment, and will do my best to try and
>>deserve it.
>>
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>>notice that it's a voltage waveform (see the labeling of the vertical
>>axis). Then read the text very carefully. Neither the diagram nor the
>>text contradict what I've said. If you think it does, post the reason
>>why, and I'll try to clear it up.
>
>
> Okay, here's the bit that you seem to take exception to (it's spread
> over both pages):
>
> "We can define the real power in an AC circuit as the equivalent DC
> power that would produce the same amout of heating in a resistive load
> as the applied AC waveform. [In a purely resistive load] we can use
> the root mean square (RMS) values (Vrms and Irms) to find this
> equivalent or RMS power."
>
> Then the equation "P = Vrms x Irms"
>
> Where "P" here explicitly refers to RMS power.
>
> This is something you have stated clearly that you disagree with.

3219. Re: RMS power a misnomer (Was: CB "Swing"? (proper AM modulation))

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-20 00:05:12 UTC
From: Gary Schafer <gaschafer@comcast.net>
Message-ID: <gsabn0d9grucfgi0tt1nrtrt18na9rp6nj@4ax.com>
Source record: 22503

There is a nice simple explanation in the ARRL handbook that I posted
earlier in the thread on "power output formula". Guess nobody read it.

2000 ARRL handbook 6.6 chapter 6, RMS VOLTAGES AND CURRENTS.

73
Gary K4FMX

On Tue, 19 Oct 2004 16:33:53 -0700, Roy Lewallen <w7el@eznec.com>
wrote:

>Paul, I apologize. My browser showed only the first of the two pages,
>and I didn't realize that the second was there. While looking for the
>quotation I found that the second page was simply scrolled off screen.
>
>Yes, there is one thing (on that second page) I do disagree with the
>author on, that the equivalent power, the product of Vrms and Irms, is
>"RMS" power. I did a brief web search to find out who the author was so
>I could contact him about that, and discovered that it's Joe Carr.
>Unfortunately, he died a short time ago.
>
>Maybe my suggestion about looking in non-mathematical texts for an
>explanation wasn't such a good idea. It appears that some of the authors
>of those texts don't fully understand the math either. I'll have to say
>that you certainly have provided some evidence as to how widespread the
>misconception is. Next time I'm downtown at Powell's Technical
>Bookstore, I'll leaf through a few volumes oriented toward technicians
>and see just how bad it is. All I have on my bookshelf in the way of
>basic circuit analysis texts is two (Pearson and Maler, and Van
>Valkenburg) which are intended for beginning engineering students, and
>they of course both have it right. A popular elementary physics text
>which I have, Weidner & Sells, _Elementary Classical Physics_, Vol. 2,
>succinctly summarizes (p. 913): "Thus, the average rate at which thermal
>energy is dissipated in the resistor is the product of the rms voltage
>across it and the rms current through it." This follows immediately
>below an equation showing the calculation of pav from the classical
>definition of average which I posted some time ago.
>
>In response to the question about Vrms, Irms, and equivalent power, I
>said that when Vrms = 100 volts and Irms = 1 amp, Pavg = 100 watts and
>Prms is about 122.5 watts. I haven't had any previous occasion to
>calculate RMS power, so I might have made a mistake. According to my
>calculation, for sinusoidal voltage and current, the RMS power equals
>the average power (which is Vrms X Irms when the load is resistive)
>times the square root of 1.5. Surely some of the readers of this group

>can handle the calculus involved in the calculation -- it's at the level
>taught to freshman engineering students, and now often taught in high
>school. The calculation isn't hard, but it's a little tedious, so
>there's ample opportunity to make a mistake. I'd very much appreciate if
>one of you would take a few minutes and double-check my calculation. Or
>check it with Mathcad or a similar program. I'll be glad to get you
>started if you'll email me. And I'll be glad to post a correction if I
>did make a mistake.
>
>Roy Lewallen, W7EL
>
>Paul Burridge wrote:
>
>> On Tue, 19 Oct 2004 12:20:29 -0700, Roy Lewallen <w7el@eznec.com>
>> wrote:
>>
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>>>I really appreciate the compliment, and will do my best to try and
>>>deserve it.
>>>
>>>Please look very carefully at the diagram at the URL you've posted, and
>>>notice that it's a voltage waveform (see the labeling of the vertical
>>>axis). Then read the text very carefully. Neither the diagram nor the
>>>text contradict what I've said. If you think it does, post the reason
>>>why, and I'll try to clear it up.
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>>
>> Okay, here's the bit that you seem to take exception to (it's spread
>> over both pages):
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>> "We can define the real power in an AC circuit as the equivalent DC
>> power that would produce the same amout of heating in a resistive load
>> as the applied AC waveform. [In a purely resistive load] we can use
>> the root mean square (RMS) values (Vrms and Irms) to find this
>> equivalent or RMS power."
>>
>> Then the equation "P = Vrms x Irms"
>>
>> Where "P" here explicitly refers to RMS power.
>>
>> This is something you have stated clearly that you disagree with.

3220. primestar 1-meter disk

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-20 02:07:20 UTC
From: pdrunen@aol.com
Message-ID: <20041019220720.25170.00002615@mb-m04.aol.com>
Source record: 22504

Hi Group,

I now have an old 1-meter disk with a LNA for primestar. Anyone tell me about the frequency range of the LNA and any amateur applications?

de KJ4UO

3221. Re: Noise Figure Measurements

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-20 03:14:31 UTC
From: bviel <sjouk@home.nl>
Message-ID: <cl4l6s$bh0$1@news4.zwoll1.ov.home.nl>
Source record: 22505

I read Terry's work again, the comments and links.

White noise generated with the B-E junction of a high
Ft transistor, B-E junction is a zener.
If you downconvert above 100kHz, that's where white
noise starts, and display it with your soundcard you
"should" get a flat respons.
The methods where right, the spectrum used was too
low.
Add zener noise to your soundcard and you get pink
noise, because at low frequenties the noise behavior
is always pink + the 1/f semiconductor flicker noise.
You can justify it, but that's manmade white noise.
If I was interested in random numbers, I would use
real white noise, real random.
The keyword here is downconvert in KISS concept,
simple as possible.
Semiconductors produce also white noise.
If you can't display white noise, that does not mean
the noise generator produces non.
I would not trust my sound card at all, because with no
input the FFT shows pink noise, ok,at very low level,
but its added to your not anymore random signal.
I have tried Spectran FFT software.
Peaks from noise floor up to 20dB in the range of zero
to hundred hertz.
The computer is full of signals inside, that's not random
compared to white noise.
If you are measuring relative great signals, the little noise
does not improve the S/N ratio so much that you cannot
copy the signal anymore.
But random noise added with little pink noise is no longer
random, how small the error is, especially if the error is only
at a specifiek part of the spectum.
Maybe a professional A/D chip can do the job ?
Unfortunate a spectrum analyzer can show you the white noise,
but cannot make numbers out of it.
To make numbers out of it is the difficulty I think, not to get
white noise.
The analog world and digital world have a " love and hate"
relationship, sometimes they work fine together,
sometimes not.
I don't say the above statements are right, its just how I think
about the experiments at my point of view.

3222. Re: 2.4Ghz PA module recommendation required

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-20 03:36:15 UTC
From: Andrey <a8421@intergate.bc.ca>
Message-ID: <10nbnc0cbfeb803@corp.supernews.com>
Source record: 22507
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

Is it for Wi-Fi network?

It could be a tough call. According to FCC regulations we not supposed to
transmit that much, hence readily available products are typicaly limited to
1 Wt, like this one:
http://www.connectronics.com/fidelity%20comtech/

Once I was thinking to use something exotic, like this 1177H10 TVT:
http://www.44tesla.com/dictionary/cat1021.htm
, but to run the network you need the Amp to be bi-directional (like the
first example.)

This one maybe close to what you need
http://www.multicap.be/uk/DM-AMP_BTB.shtml
(the big one with ribs on the picture), it may not be 10Wt, it may be ...
4Wt, by looking at it. I could not open their PDF though - gives me error.
Write them. It is in China, they may be 'pushing the boundaries'.

BTW, if you find out how powerful this Amp is, please let me know too.

Andrey
a8421@intergate.bc.ca

"Paul Burridge" <pb@notthisbit.osiris1.co.uk> wrote in message
news:2l4bn0pj64am8a23ic4drkil4mcjipp6qk@4ax.com...
> Hi all,
>
> Any suggestions? Thinking in terms of maybe 10W out / 200mW in or
> thereabouts.
>
> Thanks,
>
> p.
> --
>
> "What is now proved was once only imagin'd." - William Blake, 1793.

3223. Re: 2.4Ghz PA module recommendation required

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-20 03:43:07 UTC
From: Andrey <a8421@intergate.bc.ca>
Message-ID: <10nbnc0ji7l4f04@corp.supernews.com>
Source record: 22506
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

Actually, I was wrong in previous EMail:
here is 10 Wt bi-directinal Amp - just found it
http://www.hyperlinktech.com/web/ha2410.php
I did not see it 1 year ago. I guess world is getting better ....

it is expensive though
http://www.hyperlinktech.com/web/amplifiers_2400_page2.php

Andrey

"Paul Burridge" <pb@notthisbit.osiris1.co.uk> wrote in message
news:2l4bn0pj64am8a23ic4drkil4mcjipp6qk@4ax.com...
> Hi all,
>
> Any suggestions? Thinking in terms of maybe 10W out / 200mW in or
> thereabouts.
>
> Thanks,
>
> p.
> --
>
> "What is now proved was once only imagin'd." - William Blake, 1793.

3224. Re: RMS power a misnomer (Was: CB "Swing"? (proper AM modulation))

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-20 07:02:55 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <nL21PwFf2gdBFAjt@ifwtech.co.uk>
Source record: 22508

Paul Burridge wrote:
>If this is a misconception it must be an extremely widespread one. I've
>found a reference to RMS power and how it's calculated in 'Practical
>Radio Frequency Test & Measurement' (Newnes) and have posted the
>relevant page here:
>
>http://www.burridge8333.fsbusiness.co.uk/cvcvcv.gif
>
>If we are wrong, it appears we're not alone...
>

Any fool can write a book that includes the words "RMS power". I've done it myself.

I have known since age 15 how to calculate the average power or an arbitrary AC waveform: "Take the root-mean-square averages of the voltage and current first, and then multiply those results together. Doing it the other way around gives the wrong answer, stupid boy!"

My particular mistake was to try to use "RMS power" as a shorthand label. I naively assumed that everybody would understand that it was short for:

"This is power that has been calculated by a *correct* use of RMS averaging, which we all know means taking the RMS average of the voltage or current first, and obviously it does not mean taking the RMS average of the power, because that would *not* be correct, and now that we've wasted half a paragraph on this point, and completely derailed the original train of thought, which was mostly about something else, I'd rather like to get back to our main topic."

Just writing "RMS power" seemed so much more appealing...

BIG mistake! It fell right into the gap between people who don't know how to calculate power correctly; and people who do know, but were all too eager to assume they'd found a fault.

I learned from that mistake... but the mistake itself is immortalised 6000 times over, in cold type.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

3225. Tandem Match

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-20 10:08:59 UTC
From: Paul <g3zcuREMOVE@hotmail.com>
Message-ID: <cl5dd9qbq1@news6.svr.pol.co.uk>
Source record: 22509

I'm putting together the bits to build the tandem match from the 2001 ARRL Handbook. I do not have the original QST articles, but Googling has revealed that some builders have had a few problems, particularly those using the FAR Circuits PCB.

There's one thing I don't understand about the schematic and that just looks plain wrong. If both W2 and W3 jumpers are present, the 5.6k resistor is shorted out, thereby connecting the -2.5V and V- rails together. Surely this can't be right, or am I missing something?

Regards,

Paul G3ZCU

3226. Re: RMS power a misnomer (Was: CB "Swing"? (proper AM modulation))

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-20 10:23:17 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cl5eal$89e$1@sparta.btinternet.com>
Source record: 22510

> >I've found a reference to RMS power and how it's calculated in 'Practical
> >Radio Frequency Test & Measurement' (Newnes)

==========

Yet another Beta-tested bible is discredited! ;o) ;o)

3227. Re: primestar 1-meter disk

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-20 11:04:15 UTC
From: Scott <acepilot@bloomer.net>
Message-ID: <2LidnfVvpMr82OvcRVn-uw@bright.net>
Source record: 22511

Not sure of the frequency that Primestar used, but the DirecTV dishes work well at 10 GHz. We remove all the electronics from the feedhorn (LNA, LNB, whatever) and bore out the waveguide to 0.75 inch and mount an SMA connector on the side with a probe sticking in horizontally (for horizontal polarization). We then usually put a solid metal plug into the rear of the waveguide and make it adjustable in and out to maximize gain/matching.

Scott
N0EDV

PDRUNEN wrote:

> Hi Group,
>
> I now have an old 1-meter disk with a LNA for primestar. Anyone tell me about
> the frequency range of the LNA and any amateur applications?
>
> de KJ4UO

--
Scott
http://corbenflyer.tripod.com/
Building RV-4
Gotta Fly or Gonna Die

3228. Re: 2.4Ghz PA module recommendation required

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-20 11:42:11 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <1ljcn05qcku08dm5dfc81ufa86c55hppc5@4ax.com>
Source record: 22512
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Tue, 19 Oct 2004 20:43:07 -0700, "Andrey" <a8421@intergate.bc.ca>
wrote:

>Actually, I was wrong in previous EMail:
>here is 10 Wt bi-directinal Amp - just found it
>http://www.hyperlinktech.com/web/ha2410.php
>I did not see it 1 year ago. I guess world is getting better ....
>
>it is expensive though
>http://www.hyperlinktech.com/web/amplifiers_2400_page2.php

It is rather! I wonder how much the internal components cost?? The
site seems a bit short on technical info on these amps. What do they
mean by "bi-directional"? If they're talking about some sort of RX
preamp feature built in, it ain't gonna be 10W surely! :-)
--

"What is now proved was once only imagin'd." - William Blake, 1793.

3229. Re: RMS power a misnomer (Was: CB "Swing"? (proper AM modulation))

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-20 12:08:59 UTC
From: Chris <REMOVEchris1379ME@bigfoot.com>
Message-ID: <vzsdd.2169$%h1.180@newsread3.news.pas.earthlink.net>
Source record: 22513

Paul,

I've been following the thread still. Let me go back to the original question for a moment. So is the 4W maximum power of a CB radio is actually average power, not RMS, right? If it is modulated at 100% with a sine wave, what wil the PEP be? Is 16W the correct answer?

Chris
"Roy Lewallen" <w7el@eznec.com> wrote in message
news:10nb937ju41nee6@corp.supernews.com...
| Paul, I apologize. My browser showed only the first of the two pages,
| and I didn't realize that the second was there. While looking for the
| quotation I found that the second page was simply scrolled off screen.
|
| Yes, there is one thing (on that second page) I do disagree with the
| author on, that the equivalent power, the product of Vrms and Irms, is
| "RMS" power. I did a brief web search to find out who the author was so
| I could contact him about that, and discovered that it's Joe Carr.
| Unfortunately, he died a short time ago.
|
| Maybe my suggestion about looking in non-mathematical texts for an
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| and see just how bad it is. All I have on my bookshelf in the way of
| basic circuit analysis texts is two (Pearson and Maler, and Van
| Valkenburg) which are intended for beginning engineering students, and
| they of course both have it right. A popular elementary physics text
| which I have, Weidner & Sells, _Elementary Classical Physics_, Vol. 2,
| succinctly summarizes (p. 913): "Thus, the average rate at which thermal
| energy is dissipated in the resistor is the product of the rms voltage
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| below an equation showing the calculation of pav from the classical
| definition of average which I posted some time ago.
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| said that when Vrms = 100 volts and Irms = 1 amp, Pavg = 100 watts and
| Prms is about 122.5 watts. I haven't had any previous occasion to
| calculate RMS power, so I might have made a mistake. According to my
| calculation, for sinusoidal voltage and current, the RMS power equals
| the average power (which is Vrms X Irms when the load is resistive)
| times the square root of 1.5. Surely some of the readers of this group
| can handle the calculus involved in the calculation -- it's at the level

| taught to freshman engineering students, and now often taught in high
| school. The calculation isn't hard, but it's a little tedious, so
| there's ample opportunity to make a mistake. I'd very much appreciate if
| one of you would take a few minutes and double-check my calculation. Or
| check it with Mathcad or a similar program. I'll be glad to get you
| started if you'll email me. And I'll be glad to post a correction if I
| did make a mistake.
|
| Roy Lewallen, W7EL
|
| Paul Burridge wrote:
|
| > On Tue, 19 Oct 2004 12:20:29 -0700, Roy Lewallen <w7el@eznec.com>
| > wrote:
| >
| >
| >>I really appreciate the compliment, and will do my best to try and
| >>deserve it.
| >>
| >>Please look very carefully at the diagram at the URL you've posted, and
| >>notice that it's a voltage waveform (see the labeling of the vertical
| >>axis). Then read the text very carefully. Neither the diagram nor the
| >>text contradict what I've said. If you think it does, post the reason
| >>why, and I'll try to clear it up.
| >
| >
| > Okay, here's the bit that you seem to take exception to (it's spread
| > over both pages):
| >
| > "We can define the real power in an AC circuit as the equivalent DC
| > power that would produce the same amout of heating in a resistive load
| > as the applied AC waveform. [In a purely resistive load] we can use
| > the root mean square (RMS) values (Vrms and Irms) to find this
| > equivalent or RMS power."
| >
| > Then the equation "P = Vrms x Irms"
| >
| > Where "P" here explicitly refers to RMS power.
| >
| > This is something you have stated clearly that you disagree with.

3230. Re: RMS power a misnomer (Was: CB "Swing"? (proper AM modulation))

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-20 12:17:28 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <C8nMSINYdldBFAUW@ifwtech.co.uk>
Source record: 22514

Reg Edwards wrote:
>
>> >I've found a reference to RMS power and how it's calculated in 'Practical
>> >Radio Frequency Test & Measurement' (Newnes)
>
>============================
>
>Yet another Beta-tested bible is discredited! ;o) ;o)

I wouldn't trust anything from that publisher.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

3231. Re: Tube current sink

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-20 13:45:01 UTC
From: Fred Bartoli <fred._canxxxel_this_bartoli@RemoveThatAlso_free.fr_AndThisToo>
Message-ID: <41766b7e$0$29535$626a14ce@news.free.fr>
Source record: 22515

<munged@address.com> a crit dans le message de
news:1098134766.611432@cswreg.cos.agilent.com...
> Wes Stewart <n7ws_@_yahoo.com> wrote:
> > Now now. [g] I once had a guy working for me who was supposedly an
> > engineer and a musician. He claimed, as do a lot of nutty
> > audiophiles, that he could hear the difference in speaker wire.
>
> I used to work with a guy that said he could hear the difference between
> gold plated and tin plated RCA connectors.
>

I seriously doubt that : I've never seen tin plated RCA connectors.

However hearing the difference between gold plated and nickel plated RCA
connectors should be pretty easy for a well trained ear :
Just drop both connectors on a hard surface. Nickel plated and gold plated
shouldn't sound exactly the same.

--
Thanks,
Fred.

3232. Re: 2.4Ghz PA module recommendation required

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-20 15:01:51 UTC
From: Andrey <a8421@intergate.bc.ca>
Message-ID: <10ncv5mo5ac0116@corp.supernews.com>
Source record: 22516
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

> What do they
> mean by "bi-directional"? If they're talking about some sort of RX
> preamp feature built in, it ain't gonna be 10W surely! :-)

It is exacty that: PA from Input to Output and LNA another way. Otherwise
you can not run the Network.

And this one does look like 10Wt - judging by the size of the heatsink

Andrey

3233. Re: RMS power a misnomer (Was: CB "Swing"? (proper AM modulation))

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-20 15:12:53 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <vtvcn09dd1t041ictindp2r9eh6da0msbt@4ax.com>
Source record: 22517

On Wed, 20 Oct 2004 12:08:59 GMT, "Chris"
<REMOVEchris1379ME@bigfoot.com> wrote:

>Paul,
>
>I've been following the thread still. Let me go back to the original
>question for a moment. So is the 4W maximum power of a CB radio is actually
>average power, not RMS, right? If it is modulated at 100% with a sine wave,
>what wil the PEP be? Is 16W the correct answer?

AIUI the specified 4 Watts is the maximum*average* power allowed (in
the UK, anyway). When you modulate it 100% AM., it's still 4W average
power. If you fully modulate it with FM., it's *still* 4W average
power. But as you've seen here, for every assertion, there's a
contradiction. ;-)
--

"What is now proved was once only imagin'd." - William Blake, 1793.

3234. Re: RMS power a misnomer (Was: CB "Swing"? (proper AM modulation))

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-20 15:13:33 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <840dn018rv539hkabhmdk582jvsn8ivv4t@4ax.com>
Source record: 22518

On Wed, 20 Oct 2004 13:17:28 +0100, "Ian White, G3SEK"
<G3SEK@ifwtech.co.uk> wrote:

>Reg Edwards wrote:
>>
>>> >I've found a reference to RMS power and how it's calculated in 'Practical
>>> >Radio Frequency Test & Measurement' (Newnes)
>>
>>============================
>>
>>Yet another Beta-tested bible is discredited! ;o) ;o)
>
>I wouldn't trust anything from that publisher.

Who was *your* publisher, Ian?
--

"What is now proved was once only imagin'd." - William Blake, 1793.

3235. Re: 2.4Ghz PA module recommendation required

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-20 15:16:39 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <l60dn0lds0mcppk73mgdc7bcq0jnqjebcl@4ax.com>
Source record: 22519
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Wed, 20 Oct 2004 08:01:51 -0700, "Andrey" <a8421@intergate.bc.ca>
wrote:

>
>> What do they
>> mean by "bi-directional"? If they're talking about some sort of RX
>> preamp feature built in, it ain't gonna be 10W surely! :-)
>
>It is exacty that: PA from Input to Output and LNA another way. Otherwise
>you can not run the Network.
>
>And this one does look like 10Wt - judging by the size of the heatsink

It does look rather *large* for 10W, I guess. But is this due to the
frequency of operation? I mean, presumably efficiency drops off as one
goes up in frequency so maybe the PA is dissipating more heat than an
equivalent PA operating at, say, 430Mhz?
--

"What is now proved was once only imagin'd." - William Blake, 1793.

3236. Re: RMS power a misnomer

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-20 15:31:00 UTC
From: mikea@mikea.ath.cx
Message-ID: <cl60bksrn2@puck.litech.org>
Source record: 22520

Paul Burridge <pb@notthisbit.osiris1.co.uk> wrote:

> [snip] But as you've seen here, for every assertion, there's a
> contradiction. ;-)

Eh? I assert that 1+1=2, for 1 and 2 in the integers, and "+" defined
according to Peano's axioms. Got a valid contradiction?

--
Mike Andrews
mikea@mikea.ath.cx
Tired old sysadmin

3237. Re: ELECTROLYTIC CAPACITOR

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-20 16:48:47 UTC
From: Don Loder <donloader@hotmail.net>
Message-ID: <il5dn0hecte7c4ohe5ebv0qnlonm4vcuo4@4ax.com>
Source record: 22521

On Mon, 18 Oct 2004 17:01:13 +1300, "David McBeth"
<damarg@globe.net.nz> wrote:

>I would like to homebrew a 20mfd/4'000v capacitor for linear power
>supply.Any suggestions welcomed.Thanks,ZL2DG

Presume you mean 400V.
Why not just buy one?

If you mean 4000V all you have to do is string some
caps in series. Use balancing resistors as your bleeder
and you are on the way.

3238. Re: RMS power a misnomer (Was: CB "Swing"? (proper AM modulation))

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-20 18:44:21 UTC
From: Gary Schafer <gaschafer@comcast.net>
Message-ID: <secdn0teh5tl648p8u4mtp0b3qduifhmj2@4ax.com>
Source record: 22522

Yes Chris, you are exactly right.

73
Gary K4FMX

On Wed, 20 Oct 2004 12:08:59 GMT, "Chris"
<REMOVEchris1379ME@bigfoot.com> wrote:

>Paul,
>
>I've been following the thread still. Let me go back to the original
>question for a moment. So is the 4W maximum power of a CB radio is actually
>average power, not RMS, right? If it is modulated at 100% with a sine wave,
>what wil the PEP be? Is 16W the correct answer?
>
>Chris
>"Roy Lewallen" <w7el@eznec.com> wrote in message
>news:10nb937ju41nee6@corp.supernews.com...
>| Paul, I apologize. My browser showed only the first of the two pages,
>| and I didn't realize that the second was there. While looking for the
>| quotation I found that the second page was simply scrolled off screen.
>|
>| Yes, there is one thing (on that second page) I do disagree with the
>| author on, that the equivalent power, the product of Vrms and Irms, is
>| "RMS" power. I did a brief web search to find out who the author was so
>| I could contact him about that, and discovered that it's Joe Carr.
>| Unfortunately, he died a short time ago.
>|
>| Maybe my suggestion about looking in non-mathematical texts for an
>| explanation wasn't such a good idea. It appears that some of the authors
>| of those texts don't fully understand the math either. I'll have to say
>| that you certainly have provided some evidence as to how widespread the
>| misconception is. Next time I'm downtown at Powell's Technical
>| Bookstore, I'll leaf through a few volumes oriented toward technicians
>| and see just how bad it is. All I have on my bookshelf in the way of
>| basic circuit analysis texts is two (Pearson and Maler, and Van
>| Valkenburg) which are intended for beginning engineering students, and
>| they of course both have it right. A popular elementary physics text
>| which I have, Weidner & Sells, _Elementary Classical Physics_, Vol. 2,
>| succinctly summarizes (p. 913): "Thus, the average rate at which thermal
>| energy is dissipated in the resistor is the product of the rms voltage
>| across it and the rms current through it." This follows immediately
>| below an equation showing the calculation of pav from the classical
>| definition of average which I posted some time ago.
>|

>| In response to the question about Vrms, Irms, and equivalent power, I
>| said that when Vrms = 100 volts and Irms = 1 amp, Pavg = 100 watts and
>| Prms is about 122.5 watts. I haven't had any previous occasion to
>| calculate RMS power, so I might have made a mistake. According to my
>| calculation, for sinusoidal voltage and current, the RMS power equals
>| the average power (which is Vrms X Irms when the load is resistive)
>| times the square root of 1.5. Surely some of the readers of this group
>| can handle the calculus involved in the calculation -- it's at the level
>| taught to freshman engineering students, and now often taught in high
>| school. The calculation isn't hard, but it's a little tedious, so
>| there's ample opportunity to make a mistake. I'd very much appreciate if
>| one of you would take a few minutes and double-check my calculation. Or
>| check it with Mathcad or a similar program. I'll be glad to get you
>| started if you'll email me. And I'll be glad to post a correction if I
>| did make a mistake.
>|
>| Roy Lewallen, W7EL
>|
>| Paul Burridge wrote:
>|
>| > On Tue, 19 Oct 2004 12:20:29 -0700, Roy Lewallen <w7el@eznec.com>
>| > wrote:
>| >
>| >
>| >>I really appreciate the compliment, and will do my best to try and
>| >>deserve it.
>| >>
>| >>Please look very carefully at the diagram at the URL you've posted, and
>| >>notice that it's a voltage waveform (see the labeling of the vertical
>| >>axis). Then read the text very carefully. Neither the diagram nor the
>| >>text contradict what I've said. If you think it does, post the reason
>| >>why, and I'll try to clear it up.
>| >
>| >
>| > Okay, here's the bit that you seem to take exception to (it's spread
>| > over both pages):
>| >
>| > "We can define the real power in an AC circuit as the equivalent DC
>| > power that would produce the same amout of heating in a resistive load
>| > as the applied AC waveform. [In a purely resistive load] we can use
>| > the root mean square (RMS) values (Vrms and Irms) to find this
>| > equivalent or RMS power."
>| >
>| > Then the equation "P = Vrms x Irms"
>| >
>| > Where "P" here explicitly refers to RMS power.
>| >
>| > This is something you have stated clearly that you disagree with.
>

3239. Re: Tandem Match

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-20 19:15:23 UTC
From: Joe McElvenney <ximac@btinternet.com>
Message-ID: <VA.00000008.0013ebea@btinternet.com>
Source record: 22523

Hi,

> There's one thing I don't understand about the schematic and that just looks
> plain wrong. If both W2 and W3 jumpers are present, the 5.6k resistor is
> shorted out, thereby connecting the -2.5V and V- rails together. Surely this
> can't be right, or am I missing something?

If operated from external supplies, all three links should be removed as opposed to battery operation where they must all be in place. You are right in that the 5.6k resistor is shorted-out but it is not needed in that configuration. Two links (W2 & W3) are required then to 'remove' the resistor and re-make the connection between the -ve power sensing detector and the bottom of the battery.

I didn't know the piece of equipment but looked it up out of curiosity.

Cheers - Joe

3240. Re: Illegal Porn

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-20 19:23:23 UTC
From: SudiroPlus <stefanosudiroCHIOCCIOLINA@TOGLIhotmail.com>
Message-ID: <2hedn0t7hrbd3e00paoe330un0spkkl6b1@4ax.com>
Source record: 22524

prova

3241. Re: Illegal Porn

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-20 19:23:24 UTC
From: SudiroPlus <stefanosudiroCHIOCCIOLINA@TOGLIhotmail.com>
Message-ID: <diedn0tm6v7t98llj35flm58plgdmh88ai@4ax.com>
Source record: 22525

prova

3242. Re: RMS power a misnomer (Was: CB "Swing"? (proper AM modulation))

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-20 20:17:49 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10ndhvea83vn9e8@corp.supernews.com>
Source record: 22526

The average power of a 100% modulated 4 watt carrier is 6 watts, not 4. (If you want to look at it in the frequency domain, where the total power has to be the same as in the time domain, you've now got the original carrier plus two sidebands. The power in the two sidebands totals 2 watts.) And I'd give the answer to Chris' two questions as yes.

Roy Lewallen, W7EL

Paul Burridge wrote:

> On Wed, 20 Oct 2004 12:08:59 GMT, "Chris"
> <REMOVEchris1379ME@bigfoot.com> wrote:
>
>
>>Paul,
>>
>>I've been following the thread still. Let me go back to the original
>>question for a moment. So is the 4W maximum power of a CB radio is actually
>>average power, not RMS, right? If it is modulated at 100% with a sine wave,
>>what wil the PEP be? Is 16W the correct answer?
>
>
> AIUI the specified 4 Watts is the maximum*average* power allowed (in
> the UK, anyway). When you modulate it 100% AM., it's still 4W average
> power. If you fully modulate it with FM., it's *still* 4W average
> power. But as you've seen here, for every assertion, there's a
> contradiction. ;-)

3243. Re: RMS power a misnomer (Was: CB "Swing"? (proper AM modulation))

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-20 21:00:34 UTC
From: Gary Schafer <gaschafer@comcast.net>
Message-ID: <ockdn01l7mpogsp6mi1l0baa573scppske@4ax.com>
Source record: 22527

Pardon my saying so Roy, but I think you may be confusing the issue here. We all know that you understand this stuff backward and forward and most here have the highest regard for your expertise, including me. I also agree that you are totally correct in what you say.

The question was not what is the average power of a 100% modulated 4 watt carrier.
It was "is the 4 watt maximum power of a CB radio actually average power, not RMS right?"

He is trying to establish the meaning between so called (widely misused) RMS power and average. And he is also trying to figure out the relationship to pep.

Although you did acknowledge that he has the correct conclusion to his question, at the same time I think that you have injected some doubt in your answer. There are a lot of people that have trouble with some of the basics of this stuff. Throwing a little twist like that in often raises the confusion level with some. Again pardon me for comments.

73
Gary K4FMX

On Wed, 20 Oct 2004 13:17:49 -0700, Roy Lewallen <w7el@eznec.com> wrote:

>The average power of a 100% modulated 4 watt carrier is 6 watts, not 4.
>(If you want to look at it in the frequency domain, where the total
>power has to be the same as in the time domain, you've now got the
>original carrier plus two sidebands. The power in the two sidebands
>totals 2 watts.) And I'd give the answer to Chris' two questions as yes.
>
>Roy Lewallen, W7EL
>
>Paul Burridge wrote:
>
>> On Wed, 20 Oct 2004 12:08:59 GMT, "Chris"
>> <REMOVEchris1379ME@bigfoot.com> wrote:
>>
>>
>>>Paul,
>>>
>>>I've been following the thread still. Let me go back to the original
>>>question for a moment. So is the 4W maximum power of a CB radio is actually
>>>average power, not RMS, right? If it is modulated at 100% with a sine wave,

>>>what wil the PEP be? Is 16W the correct answer?
>>
>>
>> AIUI the specified 4 Watts is the maximum*average* power allowed (in
>> the UK, anyway). When you modulate it 100% AM., it's still 4W average
>> power. If you fully modulate it with FM., it's *still* 4W average
>> power. But as you've seen here, for every assertion, there's a
>> contradiction. ;-)

3244. Re: RMS power a misnomer (Was: CB "Swing"? (proper AM modulation))

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-20 21:26:43 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <cl6lbk$ng5$1@newshost.mot.com>
Source record: 22529

Yikes... this thread is still running.

As I explained before there is a "common" usage which has unfortunately been adopted (and printed in the almighty and "always correct" text), which uses the words "RMS power" to actually mean the *average power*. An earlier poster explained that this term was also adoppted (still non mathetically correct) in audio circles to indicate a specific test.

This is not a correct usage because the term "RMS" means that it actually is a Root Mean Square value. [[square it, take the mean, then take the square root]] We just don't do this with power waveforms.

Sidebar:
I did extensive calculations of this type as a result of an article in QST earlier this year where it was proposed to use a VOM/DVM to measure line voltage and current(via a small series dropping resistor) to arrive at power draw of common ham equipment...OOPS!

I was, however, a bit puzzeled, Roy, why you went to the trouble of calculating the the RMS value of a power earlier. I suspect it was just to show that the value is indeed different (didn't check your math).

I will differ with Roy on one issue. The RMS value of voltage and current have, for many years, also been referred to as the "effective" values. This was to relate it to the DC heating effect (of resistance) we are all familiar with. It is, indeed just as "effective" as the same DC value, in producing power. This is another terminology issue I suspect some of you may wish to squabbling about, but is is not a 'what is correct technically' issue. It is cleat that probably all of you understand the math, but this is simply an nomenclature issue.

I feel sorry for Bill because he seems to understand the math:
>> understand about deriving the RMS power from the instantaneous power
>>in the same way that RMS voltage or current is derived,

...yet he said:
>>I just don't
>>accept the definition. It's been taught the other way all my life, even
>>though you say it's incorrect. I see your point, I just don't accept
>>it.

I don't understand when you say "I just don't accept the definition."
Does this mean that you do not accept thst "RMS Power" implies (to some of us) that you have done the Root Mean Square calculation on the power waveform? Which deffinition is giving you grief?

I am not not trying to prolong the pain (or this thread), it is just that I was born with a bone in my head that makes it hard for me to give up explaining some basic concept like this. (yep, it can be a curse) You're so close.
--
Steve N, K,9;d, c. i My email has no u's.

"Roy Lewallen" <w7el@eznec.com> wrote in message news:10naq1ap34jfje9@corp.supernews.com...
> Bill Turner wrote:
>
> > On Tue, 19 Oct 2004 00:02:50 -0700, Roy Lewallen <w7el@eznec.com> wrote:
> >
> >
> > >>>And now the real question: How much DC voltage would you have to apply
> > >>>to the resistor to get exactly the same power dissipation?
> > >>
> > >>100 volts. The dissipation would be 100 watts.
> > >
> > >
> > > ----------
> > >
> > > Well. The answer you gave is exactly the answer I would have given, but
> > > you say my answer is wrong.
>
> Where have I said that's wrong? Of course it's not.
>
> > I understand about deriving the RMS power from the instantaneous power
> > in the same way that RMS voltage or current is derived, I just don't
> > accept the definition. It's been taught the other way all my life, even
> > though you say it's incorrect. I see your point, I just don't accept
> > it.
>
> I have no idea who taught that to you, since the definition of RMS is in its very name (the square Root of the Mean of the Square of the function). It's your choice to ignore the accepted definition. I can only hope you don't teach your mistaken idea to others, who will then someday say the same thing.
>
> > I will QRT for now, but thanks for taking the time to explain. I mean
> > that sincerely and I do respect your point of view.
>
> You're welcome. The only reason I've taken the time for these postings is in the hope that it will help people understand and learn. Even if it hasn't worked for you, I hope some other readers have benefitted.
>
> Roy Lewallen, W7EL

3245. Re: RMS power a misnomer (Was: CB "Swing"? (proper AM modulation))

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-20 21:33:12 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <cl6lnp$nh9$1@newshost.mot.com>
Source record: 22530

"K9SQG" <k9sqg@aol.com> wrote in message
news:20041018194447.03318.00002318@mb-m17.aol.com...
> While the discussion is interesting, one needs to consider the purpose.
For a
> pure sine wave, certain relationships are stable and hold true. For a
complex
> waveform, like voice, the relationship between peak power and average/RMS
power
> not a straightforward relationship.
>
> 73s,
>
> Evan

Hi Evan, This is not the point of contention. I think, at times, some posters get the wrong idea about the subject being discussed. I think all thoses in the discussion will agree with your statement. The issue is whether or not the words "RMS Power" are a _correct_ term to use for what some of us are saying should be called _Average Power_.

It is a discussion of terminology, not math or physics. a.k.a. what to _call_ this power, not what it _is_.

--
Steve N, K,9;d, c. i My email has no u's.

3246. Re: RMS power a misnomer (Was: CB "Swing"? (proper AM modulation))

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-20 21:58:10 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10ndnrjkmkt9116@corp.supernews.com>
Source record: 22528

No pardon needed, Gary, and I appreciate your comments. I was only correcting what Paul said:

>>>AIUI the specified 4 Watts is the maximum*average* power allowed (in
>>>the UK, anyway). When you modulate it 100% AM., it's still 4W average
>>>power. . .

What's true is that the average *carrier* power is still 4 watts. But that's not what the posting said.

I think it's important to be careful with our terminology. The problem with being loose and free with it is that it causes us to keep having breakdowns in communication. It also ends up giving people a mistaken idea about how things work. A naive reader could easily take Paul's statement to mean that the average power of a 100% modulated 4 watt carrier is 4 watts -- that's what he said, after all (even though it might not be what he meant). The lengthy discussion about "RMS power" illustrates just how deeply rooted a misconception can get, simply from being careless with terminology.

If anyone considers this to be just nit-picking, that's ok. If you already understand it, just ignore my postings. But I hope it does serve a positive purpose for some readers.

And I'm guilty, too! I should have said that the average power of a 100% amplitude modulated 4 watt carrier is 6 watts *if the modulation is a sine wave*. When modulated by voice, the average power over any given interval can vary a great deal. That's why PEP is a more useful measurement of the modulated signal. As Ian humbly pointed out, it's really easy to be careless with terminology, and we all make mistakes. But I think we should keep trying to do better.

Roy Lewallen, W7EL

Gary Schafer wrote:

> Pardon my saying so Roy, but I think you may be confusing the issue
> here. We all know that you understand this stuff backward and forward
> and most here have the highest regard for your expertise, including
> me. I also agree that you are totally correct in what you say.
>
> The question was not what is the average power of a 100% modulated 4
> watt carrier.
> It was "is the 4 watt maximum power of a CB radio actually average
> power, not RMS right?"
>
> He is trying to establish the meaning between so called (widely

> misused) RMS power and average. And he is also trying to figure out
> the relationship to pep.
>
> Although you did acknowledge that he has the correct conclusion to his
> question, at the same time I think that you have injected some doubt
> in your answer. There are a lot of people that have trouble with some
> of the basics of this stuff. Throwing a little twist like that in
> often raises the confusion level with some. Again pardon me for
> comments.
>
> 73
> Gary K4FMX
>
>
> On Wed, 20 Oct 2004 13:17:49 -0700, Roy Lewallen <w7el@eznec.com>
> wrote:
>
>
>>The average power of a 100% modulated 4 watt carrier is 6 watts, not 4.
>>(If you want to look at it in the frequency domain, where the total
>>power has to be the same as in the time domain, you've now got the
>>original carrier plus two sidebands. The power in the two sidebands
>>totals 2 watts.) And I'd give the answer to Chris' two questions as yes.
>>
>>Roy Lewallen, W7EL
>>
>>Paul Burridge wrote:
>>
>>
>>>On Wed, 20 Oct 2004 12:08:59 GMT, "Chris"
>>><REMOVEchris1379ME@bigfoot.com> wrote:
>>>
>>>
>>>
>>>>Paul,
>>>>
>>>>I've been following the thread still. Let me go back to the original
>>>>question for a moment. So is the 4W maximum power of a CB radio is actually
>>>>average power, not RMS, right? If it is modulated at 100% with a sine wave,
>>>>what wil the PEP be? Is 16W the correct answer?
>>>
>>>
>>>AIUI the specified 4 Watts is the maximum*average* power allowed (in
>>>the UK, anyway). When you modulate it 100% AM., it's still 4W average
>>>power. If you fully modulate it with FM., it's *still* 4W average
>>>power. But as you've seen here, for every assertion, there's a
>>>contradiction. ;-)
>
>

3247. Re: primestar 1-meter disk

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-20 22:16:44 UTC
From: w9gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <gtBdd.505723$8_6.455156@attbi_s04>
Source record: 22531

"PDRUNEN" <pdrunen@aol.com> wrote in message
news:20041019220720.25170.00002615@mb-m04.aol.com...
> Hi Group,
>
> I now have an old 1-meter disk with a LNA for primestar. Anyone tell me
> about
> the frequency range of the LNA and any amateur applications?
>
> de KJ4UO

Paul -

The old PrimeStar 1 meter dish is very popular for S-band (2.4 GHz)
conversions - for satellite usage or 802.11 (WiFi) usage. They have also
been used successfully by amateur microwave users.

The DirecTV, old Primestar and Dish satellite services are above the 10 GHz
amateur allocation (usually spread between 11 - 13 GHz). Here is the 10 GHz
page:
http://www.qsl.net/n1bwt/

Bob, W0LMD has a very good web page for usage of the dish, positioning,
construction of feeds, etc..
http://www.ultimatecharger.com/dish.html

For S-band, you can build a helix or patch feed.
Commercial feeds are available from SSB Electronics (PA)
http://www.ssbusa.com/ham.html

Jim Miller, G3RUH Patch feed
http://www.jrmiller.demon.co.uk/products/patch.html

w9gb

3248. Re: RMS power a misnomer (Was: CB "Swing"? (proper AM modulation))

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-20 22:22:13 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10ndp8mejp2r119@corp.supernews.com>
Source record: 22532

Steve Nosko wrote:
> . . .
> I was, however, a bit puzzeled, Roy, why you went to the trouble of
> calculating the the RMS value of a power earlier. I suspect it was just to
> show that the value is indeed different (didn't check your math).

Yes, that was the only reason. As I mentioned, I'd never before had the occasion to calculate the RMS value of a power waveform -- it's simply not useful for anything. Except to illustrate that it's different from the very useful value of average power.

> I will differ with Roy on one issue. The RMS value of voltage and current
> have, for many years, also been referred to as the "effective" values. This
> was to relate it to the DC heating effect (of resistance) we are all
> familiar with. It is, indeed just as "effective" as the same DC value, in
> producing power. This is another terminology issue I suspect some of you
> may wish to squabbling about, but is is not a 'what is correct technically'
> issue. It is cleat that probably all of you understand the math, but this
> is simply an nomenclature issue.

I don't have any disagreement with this. I just have to keep cautioning people not to extrapolate it to power. That is, just because the RMS value of voltage or current is an "effective" or DC equivalent value, don't think it implies that the RMS value of power must be its "effective" or DC equivalent value. It's not.

> . . .

> I am not not trying to prolong the pain (or this thread), it is just that I
> was born with a bone in my head that makes it hard for me to give up
> explaining some basic concept like this. (yep, it can be a curse) . . .

Egad, another person with the same genetic defect! Welcome!

Roy Lewallen, W7EL

3249. Re: RMS power a misnomer

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-20 22:50:55 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <3tqdn09p8q6l4ghieemmbar8ou8hi1kcht@4ax.com>
Source record: 22533

On Wed, 20 Oct 2004 15:31:00 +0000 (UTC), mikea@mikea.ath.cx (Mike Andrews) wrote:

>Paul Burridge <pb@notthisbit.osiris1.co.uk> wrote:
>
>> [snip] But as you've seen here, for every assertion, there's a
>> contradiction. ;-)
>
>Eh? I assert that 1+1=2, for 1 and 2 in the integers, and "+" defined
>according to Peano's axioms. Got a valid contradiction?

Post it to sci.math. Someone will - guaranteed! :-)
--

"What is now proved was once only imagin'd." - William Blake, 1793.

3250. Re: RMS power a misnomer (Was: CB "Swing"? (proper AM modulation))

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-20 23:34:05 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10ndtfebdt41680@corp.supernews.com>
Source record: 22534

I have some ideas, but that's all. I hope someone with more recent direct experience with AM broadcasting than mine who really knows the answer will comment.

I will go out on a limb and speculate that the carrier isn't being reduced during modulation. If it were, simple envelope detectors would produce serious distortion. And if the carrier isn't being reduced, then the power has to be greater when modulation is present. But let's see if an expert will comment -- if I'm wrong I'll gladly eat my words.

Roy Lewallen, W7EL

Bill Turner wrote:

> Last year I took a tour of the KFI transmitter site in Southern
> California and was fascinated by the 50kW transmitter. On the
> transmitter's front panel was a meter calibrated in output power. It
> read *steady* at 50kW, except when the operator dropped the power
> momentarily to 5kW, just to show he could.
>
> Ever since then, I've kicked myself for not asking why the power didn't
> rise with modulation. The transmitter was a Harris model DX50 (IIRC)
> which uses dozens of low power solid state modules which are switched on
> and off digitally to produce the RF output. Could it be that as they
> are switched on and off, they also are driven in such a way as to
> maintain constant power? In other words, when modulation is added the
> carrier power is reduced? It's the only thing that comes to mind, but
> there may be another reason.
>
> Ideas?
>
> --
> Bill W6WRT
>

3251. Anyone heard of Y434 tube?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-21 07:35:14 UTC
From: Prune <bobysgotguns@yahoo.com>
Message-ID: <Xns95895FA4353CGormenghast@64.59.144.76>
Source record: 22535

I couldn't find any information online about this tube. Any info is appreciated.

3252. Looking for 6MJ6 data.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-21 08:15:16 UTC
From: Prune <bobysgotguns@yahoo.com>
Message-ID: <Xns9589CC3E6D14Gormenghast@64.59.144.76>
Source record: 22536

I can find datasheets for 6JM6 online, but not for 6MJ6. Anyone have any info on this sweep tube?

3253. Re: Tandem Match

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-21 11:01:59 UTC
From: Paul <g3zcuREMOVE@hotmail.com>
Message-ID: <cl84ss$7i0$1@newsg3.svr.pol.co.uk>
Source record: 22537

> You are right in that the 5.6k resistor is shorted-out but it is not
needed in that
> configuration. Two links (W2 & W3) are required then to 'remove' the
resistor
> and re-make the connection between the -ve power sensing detector and the
> bottom of the battery.

Ah, I see now.

Many thanks,

Paul

3254. Re: RMS power a misnomer (Was: CB "Swing"? (proper AM modulation))

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-21 11:35:40 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <jn7fn013e4pelee82rvjht5mct24j527hu@4ax.com>
Source record: 22538

On Wed, 20 Oct 2004 16:34:05 -0700, Roy Lewallen <w7el@eznec.com>
wrote:

>I have some ideas, but that's all. I hope someone with more recent
>direct experience with AM broadcasting than mine who really knows the
>answer will comment.
>
>I will go out on a limb and speculate that the carrier isn't being
>reduced during modulation. If it were, simple envelope detectors would
>produce serious distortion. And if the carrier isn't being reduced, then
>the power has to be greater when modulation is present. But let's see if
>an expert will comment -- if I'm wrong I'll gladly eat my words.

If *you* don't know, Roy, WTF does??
--

"What is now proved was once only imagin'd." - William Blake, 1793.

3255. Re: Wes Hayward's "other" book...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-21 11:38:24 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <gp7fn0da9hp90uf3ie3iris4a26vrauear@4ax.com>
Source record: 22539

On Fri, 15 Oct 2004 20:43:13 -0700, Tim Wescott
<tim@wescottnospamdesign.com> wrote:

>Buy it, it's worth it.

I just have and it is. Especially since I got a brand new copy for
just over 5 quid! ($30 cover price)
Next target: "Experimental Methods...."
:-)

--

"What is now proved was once only imagin'd." - William Blake, 1793.

3256. Re: RMS power a misnomer (Was: CB "Swing"? (proper AM modulation))

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-21 13:41:13 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cl8e9oprq1@hercules.btinternet.com>
Source record: 22540

Paul, why don't you simply say -

Total power = Carrier power + Power in the two sidebands.

When no sidebands, just the carrier power.

Reg, G4FGQ

3257. Re: RMS power a misnomer (Was: CB "Swing"? (proper AM modulation))

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-21 14:14:22 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <tugfn0lj05kbpacb5p6ho8ac7v4mvehb67@4ax.com>
Source record: 22541

On Thu, 21 Oct 2004 13:41:13 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>Paul, why don't you simply say -
>
>Total power = Carrier power + Power in the two sidebands.
>
>When no sidebands, just the carrier power.

"Total power"?? I dear... I feel another lengthy, definition spin-off
thread coming on...
;-)
--

"What is now proved was once only imagin'd." - William Blake, 1793.

3258. Re: Anyone heard of Y434 tube?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-21 14:54:52 UTC
From: Keyboard In The Wilderness <Key@Kennel.net>
Message-ID: <15Qdd.51824$hj.7279@fed1read07>
Source record: 22542

There is a pair on e-bay -- sez SIMILAR TO 4CX250 EIMAC/VARIAN

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=5726073349
--
The Anon Keyboard
I doubt, therefore I might be

"Prune" <bobysgotguns@yahoo.com> wrote in message
news:Xns95895FA4353CGormenghast@64.59.144.76...
>I couldn't find any information online about this tube. Any info is
> appreciated.

3259. PT9703 RF transistor - anyone know the spec on it?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-21 15:24:04 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <9vkfn0do2d426pnqaijmrrhdb8qj5c8ic4@4ax.com>
Source record: 22543
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

Hi all,

I've tried Googling, but Advanced Semiconductor have screwed the search up with their worthless crap. What are the basic characteristics of this device? Po, Ft, Gain, Vsupply, typical application etc.

Thanks,

paul
--

"What is now proved was once only imagin'd." - William Blake, 1793.

3260. Re: RMS power a misnomer (Was: CB "Swing"? (proper AM modulation))

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-21 15:49:39 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <cl8lvk$3cr$1@newshost.mot.com>
Source record: 22545

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:10ndp8mejp2r119@corp.supernews.com...
> Steve Nosko wrote:
> > . . .

> > I am not not trying to prolong the pain (or this thread), it is just
that I
> > was born with a bone in my head that makes it hard for me to give up
> > explaining some basic concept like this. (yep, it can be a curse) . . .
>
> Egad, another person with the same genetic defect! Welcome!
> Roy Lewallen, W7EL

So it's genetic!...

Yea. And I do this in front of a class or 5-15 green students. It SURE is
rewarding when someone says :"Oooh! NOW I get it!"

73,
--
Steve N, K,9;d, c. i My email has no u's.

3261. Re: Looking for 6MJ6 data.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-21 15:53:30 UTC
From: Ray Anderson <reanderson@sbcglobal.net>
Message-ID: <_XQdd.8500$6q2.3433@newssvr14.news.prodigy.com>
Source record: 22544

Prune wrote:
> I can find datasheets for 6JM6 online, but not for 6MJ6. Anyone have any
> info on this sweep tube?

Not exactly a formal datasheet, but see the following URL for an article published in QST in Oct. 1974 that summarizes the then new 6MJ6 characteristics:

http://www.thermionic.org/sw6mj6.jpg

It provides info on input and output C, transconductance, max voltages, currents, dissipation etc....

-Ray WB6TPU

3262. Re: RMS power a misnomer (Was: CB "Swing"? (proper AM modulation))

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-21 16:28:46 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <cl8o8v$3qi$1@newshost.mot.com>
Source record: 22546

Top post...

Well, friends, rather than speculate as we most certainly love to do, I just got off the phone with John, the KFI AM Engineer. (11:15am CDT Oct 21)

He said that althought that meter is a pretty standard toroid type power sampler (very like the common ham units, but it has no reflected output), it is not designed to read PEP, but couldn't say what they did in the design. He went on to speculate that the meter ballistics(how fast the meter responds to changes) may be a factor. He also said that due to the level of compression used, you won't see much dynamic range (variation of power with modulation level changes) He said that "it *does* vary if you look closely."
He advised that you *should have* looked at the final current meter. It *does* vary widely.

He also said that Harris is doing "some pretty interesting things in that transmitter." He described the transmitter as a "50kw D to A converter" with hot redundancy (extra amps on line) and if one of those smaller amps dies, you can see a "notch" in the output waveform, but that it doesn't cause any high frequency sidebands--due in part to the filtering effect of the antenna bandwidth, but he couldn't elaborate if this was the only bandwidth limiting factor preventing splatter from said notches. Thinking about it I wonder if "notch" was not the best word, but that "flat spot" might be mbtter...but then, I didn't think to ask...Oh well.

So there ya go...

One comment I feel compelled to make here. It is all too common for us to ASSUME that EVERY measurement made is absolutely 100% correct. I see Engineers do this all the time (and though 99.99% of the time this probably is right, there are those times when some corrupting factor gives a strange reading and the experienced Engineer is the one who figures out that something is amiss IN THE SHORTEST TIME-- cuz' we all get confused by strange observations). It is sort of a "It says so on the HP digital meter, so it has to be 100%" assumption. Easy trap to fall into. Meter says "power, therefore it must be reading MY interpretation of power."

Heep the faith AND keep asking...
--
Steve N, K,9;d, c. i My email has no u's.

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:10ndtfebdt41680@corp.supernews.com...
> I have some ideas, but that's all. I hope someone with more recent
> direct experience with AM broadcasting than mine who really knows the

> answer will comment.
>
> I will go out on a limb and speculate that the carrier isn't being
> reduced during modulation. If it were, simple envelope detectors would
> produce serious distortion. And if the carrier isn't being reduced, then
> the power has to be greater when modulation is present. But let's see if
> an expert will comment -- if I'm wrong I'll gladly eat my words.
>
> Roy Lewallen, W7EL
>
> Bill Turner wrote:
>
> >
> > Last year I took a tour of the KFI transmitter site in Southern
> > California and was fascinated by the 50kW transmitter. On the
> > transmitter's front panel was a meter calibrated in output power. It
> > read *steady* at 50kW, except when the operator dropped the power
> > momentarily to 5kW, just to show he could.
> >
> > Ever since then, I've kicked myself for not asking why the power didn't
> > rise with modulation. The transmitter was a Harris model DX50 (IIRC)
> > which uses dozens of low power solid state modules which are switched on
> > and off digitally to produce the RF output. Could it be that as they
> > are switched on and off, they also are driven in such a way as to
> > maintain constant power? In other words, when modulation is added the
> > carrier power is reduced? It's the only thing that comes to mind, but
> > there may be another reason.
> >
> > Ideas?
> >
> > --
> > Bill W6WRT
> >

3263. Re: RMS power a misnomer (Was: CB "Swing"? (proper AM modulation))

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-21 20:40:11 UTC
From: Gary Schafer <gaschafer@comcast.net>
Message-ID: <bg7gn09iaenq0ibo1kn36dl8lq0mojv70c@4ax.com>
Source record: 22547

On Wed, 20 Oct 2004 15:54:12 -0700, Bill Turner <noway@nohow.com>
wrote:

>On Wed, 20 Oct 2004 13:17:49 -0700, Roy Lewallen <w7el@eznec.com> wrote:
>
>>The average power of a 100% modulated 4 watt carrier is 6 watts, not 4.
>>(If you want to look at it in the frequency domain, where the total
>>power has to be the same as in the time domain, you've now got the
>>original carrier plus two sidebands. The power in the two sidebands
>>totals 2 watts.)
>
>_____
>
>I have a question about AM sideband power. I have always believed what
>Roy says above, that the sidebands add to the total radiated power. You
>can see this when watching an S-meter.
>
>However.
>
>Last year I took a tour of the KFI transmitter site in Southern
>California and was fascinated by the 50kW transmitter. On the
>transmitter's front panel was a meter calibrated in output power. It
>read *steady* at 50kW, except when the operator dropped the power
>momentarily to 5kW, just to show he could.
>
>Ever since then, I've kicked myself for not asking why the power didn't
>rise with modulation. The transmitter was a Harris model DX50 (IIRC)
>which uses dozens of low power solid state modules which are switched on
>and off digitally to produce the RF output. Could it be that as they
>are switched on and off, they also are driven in such a way as to
>maintain constant power? In other words, when modulation is added the
>carrier power is reduced? It's the only thing that comes to mind, but
>there may be another reason.
>
>Ideas?

I'll take a stab at this. It is probably because of how the power is
being measured. An actual sample of output power is rarely used for
monitoring. They may have just a simple rf voltmeter measuring the
antenna line voltage, calibrated in watts. Many watt meters work in
this fashion.

When the carrier is modulated, the composite signal, carrier and side
band voltage swings up to twice the voltage and down to zero volts
with 100% positive and negative modulation. So the average voltage is

the voltage that the carrier produces itself. The meter can't follow the swings fast enough so it stays at the average which is equal to the carrier. The plate current meter is in the same situation. It stands still also with modulation for the same reason even though the plate voltage may swing between 2 times and zero.

If the modulation is not symmetrical, positive peaks greater than negative peaks, then you will see a slight upward kick with modulation as the average is no longer equal to the carrier voltage.

An antenna current meter on the other hand will show a definite upward kick with modulation. The current meter is usually the thermal couple type of meter that actually requires power for it to operate. Heating of a resistor in it is what makes it work. Heating that thermal couple requires power. Since power output only increases with modulation, it never goes below carrier level, the antenna ammeter sees an average power increase with modulation.

73
Gary K4FMX

3264. Re: PT9703 RF transistor - anyone know the spec on it?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-21 21:10:35 UTC
From: Dan Rae <danrae@verizonEXTRACTTHIS.net>
Message-ID: <fBVdd.3953$7d7.3721@trnddc04>
Source record: 22448

Paul Burridge wrote:

> Hi all,
>What are the basic
> characteristics of this device? Po, Ft, Gain, Vsupply, typical
> application etc.
>
10 Watts up to 400 MHz, 10 dB, 28 Volt, UHF FM AM etc

73 Dan AC6AO / G3NCR

3265. Re: PT9703 RF transistor - anyone know the spec on it?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-21 21:25:26 UTC
From: Joerg <notthisjoergsch@removethispacbell.net>
Message-ID: <aPVdd.33337$QJ3.29780@newssvr21.news.prodigy.com>
Source record: 22449
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

Hi Paul,

Vague memory but afair it is a UHF (lower UHF) power transistor, maybe 20 watts or so, 24V or 28V (not a 12V type). Could be ok for the 70cm ham band but that might already be a stretch, probably better for 2m.

Amps with devices like these didn't have a whole lot of gain when used at their upper frequency limits, certainly less than 10dB so you'd need something of about a quarter of the power you want as output to drive it.

Again, this is from memory so I am not 100% sure. My hunch is that you probably can buy 12V versions in a similar power range for little money these days.

Regards, Joerg

http://www.analogconsultants.com

3266. Re: PT9703 RF transistor - anyone know the spec on it?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-22 00:10:00 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <H8SdnZtSY_Mx0uXcRVn-3g@comcast.com>
Source record: 22450
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

"Paul Burridge" <pb@notthisbit.osiris1.co.uk> wrote in message
news:9vkfn0do2d426pnqaijmrrhdb8qj5c8ic4@4ax.com...
> Hi all,
>
> I've tried Googling, but Advanced Semiconductor have screwed the
> search up with their worthless crap. What are the basic
> characteristics of this device? Po, Ft, Gain, Vsupply, typical
> application etc.
>
> Thanks,
>
> paul
> --
>
> "What is now proved was once only imagin'd." - William Blake, 1793.

It's a UHF NPN power transistor. At 400 MHz, with VCC=28 V, and PO= 10W,
the gain is 8.2 db (min). Maximum collector current is 1.25 amp, and max
dissipation is 20 W @ 25C derated .114 W/C. Claimed collector efficiency is
60%. Moto must have second sourced this; it is in their 1991 RF book.

Tam

3267. Re: PT9703 RF transistor - anyone know the spec on it?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-22 00:11:29 UTC
From: legg <legg@nospam.magma.ca>
Message-ID: <u8jgn0t7up5t22r78gqb1h780vdjal3prt@4ax.com>
Source record: 22451
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Thu, 21 Oct 2004 16:24:04 +0100, Paul Burridge
<pb@notthisbit.osiris1.co.uk> wrote:

>Hi all,
>
>I've tried Googling, but Advanced Semiconductor have screwed the
>search up with their worthless crap. What are the basic
>characteristics of this device? Po, Ft, Gain, Vsupply, typical
>application etc.

from TRW '83

PT9703B
spec @ 400MHz
Pgain 10Wout for Pin 1.5W
Collector efficiency 60%
Cob 12pF
Icmax continuous - 1.25A - note that SOA curves limit at 1.125A.
Vceo 30V
Vces 60V
designed for 28Vcc system Common-Emitter UHF
Isolated package (? from mounting stud, I assume)
Rthjc 8.8degC/W
Tj 200degC limit
Pdiss limit @Tc20deg = 20W

RL

3268. Re: PT9703 RF transistor - anyone know the spec on it?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-22 00:20:39 UTC
From: skavanagh72nospam@yahoo.ca
Message-ID: <5249fb3f.0410211620.4d72f143@posting.google.com>
Source record: 22452
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

Paul:

TRW PT9703:

Max. Frequency: 400 MHz
Power Output: 10 W
Gain: 10 dB
Vceo: 30 V (intended for 28 V supply)
Vces: 55 V
Thermal resistance (junction-to-case): 8.8 deg.C/W

The lead with a diagonal cut corner is the collector. No, I don't have a data sheet, just an old short-form catalogue, so that's all the info I have (apart from a dimensioned drawing of the case).

Steve

3269. Re: RMS power a misnomer (Was: CB "Swing"? (proper AM modulation))

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-22 10:08:40 UTC
From: Highland Ham <abcgm0csz.kn6whxyz@abcntlworldxyz.com>
Message-ID: <l_4ed.20$qj2.9@newsfe6-win.ntli.net>
Source record: 22453

"Gary Schafer" <gaschafer@comcast.net> wrote in message
news:bg7gn09iaenq0ibo1kn36dl8lq0mojv70c@4ax.com...
> On Wed, 20 Oct 2004 15:54:12 -0700, Bill Turner <noway@nohow.com>
> wrote:
>
> >On Wed, 20 Oct 2004 13:17:49 -0700, Roy Lewallen <w7el@eznec.com> wrote:
> >
> >>The average power of a 100% modulated 4 watt carrier is 6 watts, not 4.
> >>(If you want to look at it in the frequency domain, where the total
> >>power has to be the same as in the time domain, you've now got the
> >>original carrier plus two sidebands. The power in the two sidebands
> >>totals 2 watts.)
> >
> >____
> >
> >I have a question about AM sideband power. I have always believed what
> >Roy says above, that the sidebands add to the total radiated power. You
> >can see this when watching an S-meter.
> >
> >However.
> >
> >Last year I took a tour of the KFI transmitter site in Southern
> >California and was fascinated by the 50kW transmitter. On the
> >transmitter's front panel was a meter calibrated in output power. It
> >read *steady* at 50kW, except when the operator dropped the power
> >momentarily to 5kW, just to show he could.
> >
> >Ever since then, I've kicked myself for not asking why the power didn't
> >rise with modulation. The transmitter was a Harris model DX50 (IIRC)
> >which uses dozens of low power solid state modules which are switched on
> >and off digitally to produce the RF output. Could it be that as they
> >are switched on and off, they also are driven in such a way as to
> >maintain constant power? In other words, when modulation is added the
> >carrier power is reduced? It's the only thing that comes to mind, but
> >there may be another reason.
> >
> >Ideas?
>
>
> I'll take a stab at this. It is probably because of how the power is
> being measured. An actual sample of output power is rarely used for
> monitoring. They may have just a simple rf voltmeter measuring the
> antenna line voltage, calibrated in watts. Many watt meters work in
> this fashion.

>
> When the carrier is modulated, the composite signal, carrier and side
> band voltage swings up to twice the voltage and down to zero volts
> with 100% positive and negative modulation. So the average voltage is
> the voltage that the carrier produces itself. The meter can't follow
> the swings fast enough so it stays at the average which is equal to
> the carrier. The plate current meter is in the same situation. It
> stands still also with modulation for the same reason even though the
> plate voltage may swing between 2 times and zero.
>
> If the modulation is not symmetrical, positive peaks greater than
> negative peaks, then you will see a slight upward kick with modulation
> as the average is no longer equal to the carrier voltage.
>
> An antenna current meter on the other hand will show a definite upward
> kick with modulation. The current meter is usually the thermal couple
> type of meter that actually requires power for it to operate. Heating
> of a resistor in it is what makes it work. Heating that thermal couple
> requires power. Since power output only increases with modulation, it
> never goes below carrier level, the antenna ammeter sees an average
> power increase with modulation.
==========
Yet 'total' RF power can be neatly measured by means of a calibrated
oscilloscope.

Frank GM0CSZ / KN6WH

3270. Question about indutances

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-22 11:53:28 UTC
From: ON5MJ <my_call_sign@skynet.be>
Message-ID: <4178f3d2$0$12450$ba620e4c@news.skynet.be>
Source record: 22454

hello everybody,

For many years it's a common practice to shortcut the unused part of inductances in PA, Pi filters, etc, following the selected taps on the coil. We can consider that the shorted turns are in fact the shorted secondary of a transformer coupled to the primary made by the "hot turns". Consequently this would dissipate power and reduce the Q. Is this right or not ? Or told another way: is there any inconvenience in not shorting the unused turns ?

Thank you in advance for your explanations and experience.

73 de ON5MJ - Jacques.

3271. Re: ELECTROLYTIC CAPACITOR

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-22 12:03:52 UTC
From: dialcover@webtv.net
Message-ID: <13716-4178F728-344@storefull-3251.bay.webtv.net>
Source record: 22455

SEE MY WEBSITE

CHECK MY WEBSITE: www.dialcover.com
Bill Turner, excuse caps, short answers, stroke.
Business SASE, each order a copy of The Pocket Resource Guide.

3272. Re: PT9703 RF transistor - anyone know the spec on it?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-22 13:30:18 UTC
From: w9gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <KX7ed.440278$Fg5.283281@attbi_s53>
Source record: 22456
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

"Tam/WB2TT" <t-tammaru@c0mca$t.net> wrote in message
news:H8SdnZtSY_Mx0uXcRVn-3g@comcast.com...
>
> "Paul Burridge" <pb@notthisbit.osiris1.co.uk> wrote in message
> news:9vkfn0do2d426pnqaijmrrhdb8qj5c8ic4@4ax.com...
>> Hi all,
>>
>> I've tried Googling, but Advanced Semiconductor have screwed the
>> search up with their worthless crap. What are the basic
>> characteristics of this device? Po, Ft, Gain, Vsupply, typical
>> application etc.
>>
>> Thanks,
>>
>> paul
>> --
>>
>> "What is now proved was once only imagin'd." - William Blake, 1793.
>
> It's a UHF NPN power transistor. At 400 MHz, with VCC=28 V, and PO= 10W,
> the gain is 8.2 db (min). Maximum collector current is 1.25 amp, and max
> dissipation is 20 W @ 25C derated .114 W/C. Claimed collector efficiency
> is 60%. Moto must have second sourced this; it is in their 1991 RF book.
>
> Tam

Yes, the "PT" was second sourced from TRW.

gb

3273. Re: RMS power a misnomer (Was: CB "Swing"? (proper AM modulation))

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-22 17:20:45 UTC
From: N2EY@AOL.COM
Message-ID: <c2356669.0410220920.7c8ace22@posting.google.com>
Source record: 22457

Gary Schafer <gaschafer@comcast.net> wrote in message
news:<bg7gn09iaenq0ibo1kn36dl8lq0mojv70c@4ax.com>...
> On Wed, 20 Oct 2004 15:54:12 -0700, Bill Turner <noway@nohow.com>
> wrote:
>
> >I have a question about AM sideband power. I have always believed what
> >Roy says above, that the sidebands add to the total radiated power. You
> >can see this when watching an S-meter.

This is true.

Consider a classic plate modulated Class C AM transmitter running 200
watts input. It requires 100 watts of audio for modulation. Assume it
has plate efficiency of 75%.

With no input to the modulator, the transmitter produces 150 watts of
RF from the 200 watts input. With sine-wave audio modulation, the
input rises to 300 watts (200 watts DC plus 100 watts audio) and the
total RF output rises to 225 watts. That's not a lot - only 75 watts
more (75% of 100).
>
> >However.
> >
> >Last year I took a tour of the KFI transmitter site in Southern
> >California and was fascinated by the 50kW transmitter. On the
> >transmitter's front panel was a meter calibrated in output power. It
> >read *steady* at 50kW, except when the operator dropped the power
> >momentarily to 5kW, just to show he could.
> >
> >Ever since then, I've kicked myself for not asking why the power didn't
> >rise with modulation. The transmitter was a Harris model DX50 (IIRC)
> >which uses dozens of low power solid state modules which are switched on
> >and off digitally to produce the RF output. Could it be that as they
> >are switched on and off, they also are driven in such a way as to
> >maintain constant power? In other words, when modulation is added the
> >carrier power is reduced? It's the only thing that comes to mind, but
> >there may be another reason.
> >
> >Ideas?

> I'll take a stab at this. It is probably because of how the power is
> being measured.

True - but not for the reasons you state.

> An actual sample of output power is rarely used for
> monitoring. They may have just a simple rf voltmeter measuring the
> antenna line voltage, calibrated in watts. Many watt meters work in
> this fashion.
>
> When the carrier is modulated, the composite signal, carrier and side
> band voltage swings up to twice the voltage and down to zero volts
> with 100% positive and negative modulation. So the average voltage is
> the voltage that the carrier produces itself.

No, it isn't.

> The meter can't follow
> the swings fast enough so it stays at the average which is equal to
> the carrier. The plate current meter is in the same situation. It
> stands still also with modulation for the same reason even though the
> plate voltage may swing between 2 times and zero.

True, but that's not the problem.
>
> If the modulation is not symmetrical, positive peaks greater than
> negative peaks, then you will see a slight upward kick with modulation
> as the average is no longer equal to the carrier voltage.
>
> An antenna current meter on the other hand will show a definite upward
> kick with modulation. The current meter is usually the thermal couple
> type of meter that actually requires power for it to operate. Heating
> of a resistor in it is what makes it work. Heating that thermal couple
> requires power. Since power output only increases with modulation, it
> never goes below carrier level, the antenna ammeter sees an average
> power increase with modulation.

Not the issue.

Both an RF voltmeter and a thermocouple ammeter require some power to
work. If the antenna is a linear load, the voltage and current must
retain a linear relationship, so that increasing one increases the
other.

IOW, voltmeter vs. ammeter makes no difference. Sorry.

The reason the power meter didn't move was probably due to averaging.
The measeurement system probably averages the power over several
seconds, rather than trying to follow the audio. If they had
transmitted just an unmodulated carrier for a long-enough time, you'd
see the power output drop. But BC stations don't do that intentionally
- "dead air" is a real no-no.

73 de Jim, N2EY

3274. Re: RMS power a misnomer (Was: CB "Swing"? (proper AM modulation))

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-22 19:22:47 UTC
From: Gary Schafer <gaschafer@comcast.net>
Message-ID: <qdnin01ohb541s299ur0oets3su7l5bj20@4ax.com>
Source record: 22458

On 22 Oct 2004 10:20:45 -0700, N2EY@AOL.COM (N2EY) wrote:

>Gary Schafer <gaschafer@comcast.net> wrote in message
news:<bg7gn09iaenq0ibo1kn36dl8lq0mojv70c@4ax.com>...
>> On Wed, 20 Oct 2004 15:54:12 -0700, Bill Turner <noway@nohow.com>
>> wrote:
>>
>> >I have a question about AM sideband power. I have always believed what
>> >Roy says above, that the sidebands add to the total radiated power. You
>> >can see this when watching an S-meter.
>
>This is true.
>
>Consider a classic plate modulated Class C AM transmitter running 200
>watts input. It requires 100 watts of audio for modulation. Assume it
>has plate efficiency of 75%.
>
>With no input to the modulator, the transmitter produces 150 watts of
>RF from the 200 watts input. With sine-wave audio modulation, the
>input rises to 300 watts (200 watts DC plus 100 watts audio) and the
>total RF output rises to 225 watts. That's not a lot - only 75 watts
>more (75% of 100).
> >
>> >However.
>> >
>> >Last year I took a tour of the KFI transmitter site in Southern
>> >California and was fascinated by the 50kW transmitter. On the
>> >transmitter's front panel was a meter calibrated in output power. It
>> >read *steady* at 50kW, except when the operator dropped the power
>> >momentarily to 5kW, just to show he could.
>> >
>> >Ever since then, I've kicked myself for not asking why the power didn't
>> >rise with modulation. The transmitter was a Harris model DX50 (IIRC)
>> >which uses dozens of low power solid state modules which are switched on
>> >and off digitally to produce the RF output. Could it be that as they
>> >are switched on and off, they also are driven in such a way as to
>> >maintain constant power? In other words, when modulation is added the
>> >carrier power is reduced? It's the only thing that comes to mind, but
>> >there may be another reason.
>> >
>> >Ideas?
>
>> I'll take a stab at this. It is probably because of how the power is
>> being measured.

>
>True - but not for the reasons you state.
>
>> An actual sample of output power is rarely used for
>> monitoring. They may have just a simple rf voltmeter measuring the
>> antenna line voltage, calibrated in watts. Many watt meters work in
>> this fashion.
>>
>> When the carrier is modulated, the composite signal, carrier and side
>> band voltage swings up to twice the voltage and down to zero volts
>> with 100% positive and negative modulation. So the average voltage is
>> the voltage that the carrier produces itself.
>
>No, it isn't.
>
>> The meter can't follow
>> the swings fast enough so it stays at the average which is equal to
>> the carrier. The plate current meter is in the same situation. It
>> stands still also with modulation for the same reason even though the
>> plate voltage may swing between 2 times and zero.
>
>True, but that's not the problem.
>>
>> If the modulation is not symmetrical, positive peaks greater than
>> negative peaks, then you will see a slight upward kick with modulation
>> as the average is no longer equal to the carrier voltage.
>>
>> An antenna current meter on the other hand will show a definite upward
>> kick with modulation. The current meter is usually the thermal couple
>> type of meter that actually requires power for it to operate. Heating
>> of a resistor in it is what makes it work. Heating that thermal couple
>> requires power. Since power output only increases with modulation, it
>> never goes below carrier level, the antenna ammeter sees an average
>> power increase with modulation.
>
>Not the issue.
>
>Both an RF voltmeter and a thermocouple ammeter require some power to
>work. If the antenna is a linear load, the voltage and current must
>retain a linear relationship, so that increasing one increases the
>other.
>
>IOW, voltmeter vs. ammeter makes no difference. Sorry.
>
>The reason the power meter didn't move was probably due to averaging.
>The measeurement system probably averages the power over several
>seconds, rather than trying to follow the audio. If they had
>transmitted just an unmodulated carrier for a long-enough time, you'd
>see the power output drop. But BC stations don't do that intentionally
>- "dead air" is a real no-no.

>
>73 de Jim, N2EY

Well, I just tried it.

I set the carrier level out at 20 watts. Modulated the transmitter with a 1000 hz tone up to 100% modulation as seen on the scope monitoring the output of the transmitter. Using a drake w4 watt meter (same as a bird) the watt meter held steady at 20 watts. It read the same at full 100% modulation as it did with no modulation, just the carrier. No ALC involved here either.
Watching the scope the rf output voltage did double with 100% modulation as would be expected.

Now had I put a thermocouple rf ammeter in the coax line I would have seen an increase in the line current with modulation.

What did I do wrong?

73
Gary k4FMX

3275. FA:TUBES-6V6,6146B + MORE ITEMS

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-22 20:44:03 UTC
From: Heytubeguy <heytubeguy@worldnet.att.net>
Message-ID: <nieed.743048$Gx4.145076@bgtnsc04-news.ops.worldnet.att.net>
Source record: 22459

NOS RCA 6v6, 6146b's + more items now and others coming later: check back often:

http://search.ebay.com/_W0QQgotopageZ1QQsassZheytubeguyQQsorecordsperpageZ25QQsosortorderZ1QQsosortpropertyZ1

or seller heytubeguy,

Tnx heytubeguy

3276. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-22 21:23:05 UTC
From: mike beauchamp <mbeauchamp@cogeco.ca>
Message-ID: <VSeed.5499$q02.1057190@read2.cgocable.net>
Source record: 22460
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur,uk.tech.broadcast

uh guys!! this is a ham radio news group!!!!!
If you cant get along on the net then why would you be a ham ...
Your not acting like the diplomatic sort of people i wanted to be like when
i was younger.
I wanted to be a ham to promote the hobby not destroy it..
this is childish....
cmon guys

I dont even care if your cb,ers you know what swr is ....
then act like you do and dont act like you are a standing wave ratio (3:1)
And its got nothing to do with me being Canadian either...
Lets get along and stop picking on people..
Grow up!!!!!!!

"Airy R. Bean" <me@privacy.net> wrote in message
news:2ssb1jF1ngvmbU1@uni-berlin.de...
> And here in Britland, those who originated or who now
> support the gangrenous degeneration that is the M3/CB
> Fools License scheme have f*cked Ham Radio good and proper!
>
> "Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
> news:ck9pu6$47o$1@titan.btinternet.com...
> > All physical contact and association between people of all ages is
> > fundamentally sexual in nature. It's for the propagation of our
species.
> > Otherwise there is no genetical reason for contact. It's all built into
> our
> > genes.
>
>

3277. Re: PT9703 RF transistor - anyone know the spec on it?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-22 21:50:48 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <o40jn0la01eptq400vrhpv33pptrlesveb@4ax.com>
Source record: 22461
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On 21 Oct 2004 17:20:39 -0700, skavanagh72nospam@yahoo.ca (Steve
Kavanagh) wrote:

[snip]

Thanks, all!

p.
--

"What is now proved was once only imagin'd." - William Blake, 1793.

3278. Re: Question about indutances

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-22 22:04:22 UTC
From: ON5MJ <my_call_sign@skynet.be>
Message-ID: <417982fc$0$12463$ba620e4c@news.skynet.be>
Source record: 22462

Thank you Bill for your reply to my question.

Before posting this question my thinking was the following one: the loss could not be that low because many authors have written that antenna tuners have sometimes a huge amount of loss in their inductances. Of course, as you told, if the shorted part of the coil is not tightly coupled to the unshorted one, the problem is unrelevant. But how to estimate the degree of coupling for two close coils in line ?

Can also someone tell me what is the true purpose of this shorting and what could happen if the unused part of the coil is left unshorted ? Maybe is it done this way to avoid developping RF high voltage at the end of the unused part of the coil specially when the useful part of the coil is small.

I also will question a friend who is an expert in Pspice for simulating this problem.

Thank you for your advise.

73 de ON5MJ - Jacques.

3279. Re: RMS power a misnomer (Was: CB "Swing"? (proper AM modulation))

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-22 23:46:30 UTC
From: n2ey@aol.comSPAMNO
Message-ID: <20041022194630.27108.00001166@mb-m01.aol.com>
Source record: 22463

In article <qdnin01ohb541s299ur0oets3su7l5bj20@4ax.com>, Gary Schafer
<gaschafer@comcast.net> writes:

>I set the carrier level out at 20 watts. Modulated the transmitter
>with a 1000 hz tone up to 100% modulation as seen on the scope
>monitoring the output of the transmitter.

What sort of rig?

>Using a drake w4 watt meter
>(same as a bird) the watt meter held steady at 20 watts. It read the
>same at full 100% modulation as it did with no modulation, just the
>carrier. No ALC involved here either.
>Watching the scope the rf output voltage did double with 100%
>modulation as would be expected.
>
>Now had I put a thermocouple rf ammeter in the coax line I would have
>seen an increase in the line current with modulation.

But you didn't put an RF ammeter in the line, nor an RF voltmeter.
>
>What did I do wrong?
>
I don't think you did anything wrong. What sort of rig was it? How modulated?

73 de Jim, N2EY

3280. Re: Top coupled resonators (more bandstop filters)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-23 00:33:12 UTC
From: Joel Kolstad <JKolstad71HatesSpam@Yahoo.Com>
Message-ID: <5-SdneNu9qeTO-TcRVn-hw@comcast.com>
Source record: 22464

"Leon Heller" <leon_heller@hotmail.com> wrote in message
news:41723c34$0$20461$cc9e4d1f@news-text.dial.pipex.com...
> The Elsie filter synthesis program has a bandstop filter design option. I
> just tried it and it works OK. None of the designs are top-coupled
> resonators, though.

Right... the reason I started down the 'coupled resonator' path was due to the fact that -- for bandpass filters -- the component values at high frequencies tend to be much more realizable than with the 'tradition' L->LC, C->CL structure.

In any case, I've found a paper that addresses the 'unreasonably small component value' problem -- it interleaves a low-pass filter with the band-stop filter, and then applies some transformations to get back to a 'reasonable' looking topology. The extra degree of freedom provides a lot of flexibility in obtaining 'big' component values (at the expense of having more components involved, of course).

Thanks for the help. I have played with Elsie, and it's a pretty nice program (even if it does insist on properly scaling its displays only when its window is maximized! :-)).

---Joel

3281. Re: Top coupled resonators (more bandstop filters)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-23 00:34:36 UTC
From: Joel Kolstad <JKolstad71HatesSpam@Yahoo.Com>
Message-ID: <LpCdnY5IYMn_O-TcRVn-tA@comcast.com>
Source record: 22465

"john jardine" <john@jjdesigns.fsnet.co.uk> wrote in message
news:cku2e3$hk0$1@news7.svr.pol.co.uk...
> The way to go is firstly design a prototype low pass filter. Then
> transform
> it to its high pass equivalent. Then transform to the band stop design.

This (alone) doesn't work if you want a 2% bandwidth filter at 500MHz built using lumped L's and C's with finite Q's. Try it. :-)

---Joel

3282. Re: Question about indutances

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-23 00:54:04 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10njat84oji4r3e@corp.supernews.com>
Source record: 22466

ON5MJ wrote:

> hello everybody,
>
> For many years it's a common practice to shortcut the unused part of
> inductances in PA, Pi filters, etc, following the selected taps on the coil.
> We can consider that the shorted turns are in fact the shorted secondary of
> a transformer coupled to the primary made by the "hot turns". Consequently
> this would dissipate power and reduce the Q. Is this right or not ? Or told
> another way: is there any inconvenience in not shorting the unused turns ?
>
> Thank you in advance for your explanations and experience.
>
> 73 de ON5MJ - Jacques.
>
>

I suspect that if one leaves the ends open one either has a problem with nasty resonances or one has a problem with too-high RF voltages.

The coupling isn't terribly tight, and the coil should be fairly efficient, so you may not lose that much (but checking it would be a good idea).

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

3283. Re: Looking for 6MJ6 data.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-23 01:42:02 UTC
From: Ken Scharf <wa2mzeNOTTHIS@bellsouth.net>
Message-ID: <JAied.92846$yp.73081@bignews1.bellsouth.net>
Source record: 22467

Ray Anderson wrote:
> Prune wrote:
>
>> I can find datasheets for 6JM6 online, but not for 6MJ6. Anyone have
>> any info on this sweep tube?
>
>
> Not exactly a formal datasheet, but see the following URL for an article
> published in QST in Oct. 1974 that summarizes the then new 6MJ6
> characteristics:
>
> http://www.thermionic.org/sw6mj6.jpg
>
> It provides info on input and output C, transconductance, max voltages,
> currents, dissipation etc....
>
>
> -Ray WB6TPU
That tube must be as rare as hen's teeth. RCA stopped making
receiving tubes in 1975 or 1976 IIRC, and that was published in late
1974. So the tube was only made for 1 or 2 years at the most.
You'll NEVER see one in the flesh!

3284. Re: RMS power a misnomer (Was: CB "Swing"? (proper AM modulation))

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-23 02:34:26 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10njgpl6ngieb7f@corp.supernews.com>
Source record: 22468

The explanations make sense to me.

The average *voltage* of an amplitude modulated signal equals the carrier voltage, provided that the modulation has no DC offset (that is, its average value is zero). This would be true for any waveform, provided that it's AC coupled and it's not DC level shifted, clipped, or otherwise distorted after the AC coupling. (It wouldn't be true of a classically overmodulated carrier, for example.) The average of an AC coupled waveform is always zero, if averaged over a time period that's long compared to the time constant of the coupling network.

So a power meter that's really reading the voltage should stay at the carrier level, provided that its time constant is comparable to or longer than the time constant of the AC coupling of the modulation signal. I'd expect this to be the case for a typical meter and typical audio modulation.

Even if you're monitoring the true power level, the average typically wouldn't get much greater than the carrier if you were modulating it with a normal voice. Compression would tend to raise the average some, though.

As I understand the Bird wattmeter, it basically takes current and voltage samples and adds them (rather than vectorially multiplying them, as a true power detector would have to do). What this would do to its response to average power I'm not sure, but I wouldn't expect it to give an accurate indication of either the carrier power or total power of a modulated signal.

We're confronted all the time with measurements that seem to contradict established theory. Some people regretfully are quick to embrace these as evidence that established theory is wrong. It does take some effort and knowledge to dig a bit to find out why there's a disagreement. But with a miniscule frequency of exceptions, the digging always reveals that we're not measuring what we think we are, we're using the wrong theory, or we're applying it wrong.

Roy Lewallen, W7EL

3285. Re: Question about indutances

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-23 03:00:11 UTC
From: k7itm@aol.com
Message-ID: <3200347.0410221900.2e05ae14@posting.google.com>
Source record: 22469

The shorted turns are not like shorted turns on a power transformer,
where the coupling between windings is very high. Shorting the turns
does lower the inductance of the remaining turns slightly and lowers
the Q as a result, but it's usually a lot better than leaving them
open and risking developing a very high voltage on the open turns due
to self-resonance effects. The power lost in the coil should be a
small percentage of the total dissipated power.

Cheers,
Tom

"ON5MJ" <my_call_sign@skynet.be> wrote in message
news:<4178f3d2$0$12450$ba620e4c@news.skynet.be>...
> hello everybody,
>
> For many years it's a common practice to shortcut the unused part of
> inductances in PA, Pi filters, etc, following the selected taps on the coil.
> We can consider that the shorted turns are in fact the shorted secondary of
> a transformer coupled to the primary made by the "hot turns". Consequently
> this would dissipate power and reduce the Q. Is this right or not ? Or told
> another way: is there any inconvenience in not shorting the unused turns ?
>
> Thank you in advance for your explanations and experience.
>
> 73 de ON5MJ - Jacques.

3286. Re: Looking for 6MJ6 data.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-23 04:41:00 UTC
From: hexter@blazenet.net
Message-ID: <10njo6sa6dqdff2@corp.supernews.com>
Source record: 22470

In article <Xns9589CC3E6D14Gormenghast@64.59.144.76>, bobysgotguns@yahoo.com says...
>
>I can find datasheets for 6JM6 online, but not for 6MJ6. Anyone have any
>info on this sweep tube?

I think it is pin for pin, and electrically compatible with the 6JS6C,
and was the preffered replacement to use in the Dentron GLA-1000.
If I remember correctly, the 6MJ6 has more plate dissapation, and is
just a bit more rugged overall than the 6JS6C.

3287. Re: RMS power a misnomer (Was: CB "Swing"? (proper AM modulation))

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-23 07:31:07 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10nk25vjpk7lu77@corp.supernews.com>
Source record: 22471

Bill Turner wrote:
>
> Isn't the S-meter in a typical receiver voltage driven? They do kick
> upwards with modulation.
>
> --
> Bill W6WRT
>

S-meters are driven by the AGC voltage, which is usually derived from the peak voltage of the signal. The peak value of an AM signal does increase with modulation, so it wouldn't surprise me to see one kick up a little once in a while on voice peaks when listening to AM.

Of course, they always kick upwards when listening to SSB -- just about none of what I've written applies to that mode.

Roy Lewallen, W7EL

3288. Re: RMS power a misnomer (Was: CB "Swing"? (proper AM modulation))

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-23 08:00:03 UTC
From: Ian Jackson <IanJacksonRemoveThisBit@g3ohx.demon.co.uk>
Message-ID: <+LcBbuFD+geBFwJt@g3ohx.demon.co.uk>
Source record: 22472

In message <0hrjn09pamjtfbg1m0o6eekqhf3rmccd2e@4ax.com>, Bill Turner
<noway@nohow.com> writes
>On Fri, 22 Oct 2004 19:34:26 -0700, Roy Lewallen <w7el@eznec.com> wrote:
>
>>So a power meter that's really reading the voltage should stay at the
>>carrier level, provided that its time constant is comparable to or
>>longer than the time constant of the AC coupling of the modulation
>>signal. I'd expect this to be the case for a typical meter and typical
>>audio modulation.
>
>>_____
>
>Isn't the S-meter in a typical receiver voltage driven? They do kick
>upwards with modulation.
>
>--
>Bill W6WRT
>

Try making a simple RF voltmeter consisting of a diode detector driving
a sensitive moving coil meter (say 100microamp fsd) or a multimeter
reading volts. If the RF source doesn't already have a DC path to ground
(ie it is AC coupled), you will also need to add a shunt resistor or RF
choke. Make the resistor as low as possible without killing the RF too
much.

Apply sufficient RF to give (say) a half-scale reading. Now modulate the
signal with audio (to 100% if possible). The meter reading will stay the
same. Now add a fairly large capacitor across the meter (say 1uF). The
reading will increase. If the RF source impedance is low compared with
the resistance of the meter, the capacitor will discharge very little
when the diode is 'off', and the cap will charge up to the peak voltage.
With a good modulation waveform, 100% mod will double the reading.
(Note: Any capacitor value between 'far too small' and 'more than
enough' will give a reading somewhere between.

I did this about 30 years ago to add a simple mod depth indicator to and
old signal generator which already had an RF level meter.

Anyway, all this talk about power and PA efficiency tends to complicate
the explanation. Just think of the spectrum of the signal.
No mod = 0dB reference = the carrier.
Add mod. Sidebands appear each side of the carrier. The carrier level
stays at 0dB.
Set mod at 100%. Each sideband should be 6dB below the carrier level.

Total power = 0dB + -6dB + -6dB = 1 + 1/4 + 1/4 = 1.5
(Note: This is regardless how the modulation was applied).
Peak power can be got from the voltage waveform. The peak RF voltage
doubles with 100% mod. The peak power is proportional to the square of
the voltage, so it quadruples.

So, to sum up... for AM:
100% mod, power increases x1.5 wrt 0% mod.
100% mod, peak power is x4 wrt carrier.

Ian.

--

3289. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-23 08:32:39 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2tujenF24ua7tU1@uni-berlin.de>
Source record: 22473
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur,uk.tech.broadcast

I think that you misunderstand what is being said.

Ham Radio is not a "hobby"; that is a description of
CB Radio.

Ham Radio is a technical pursuit for those suitably qualified - and
the M3/CB Fools' Licensee is not so qualified - he is specifically
forbidden to build his own gear from scratch and is therefore
not classifiable as a Ham by any stretch of the imagination.

You seem to be confusing a genuine concern that standards be
maintained with undesirable emotional attitudes that you yourself
project.

I append a short article to assist you to disambiguate the Ham from
the CBer.

"mike beauchamp" <mbeauchamp@cogeco.ca> wrote in message
news:VSeed.5499$q02.1057190@read2.cgocable.net...
> uh guys!! this is a ham radio news group!!!!!
> If you cant get along on the net then why would you be a ham ...
> Your not acting like the diplomatic sort of people i wanted to be like
when
> i was younger.
> I wanted to be a ham to promote the hobby not destroy it..
> this is childish....
> cmon guys
> I dont even care if your cb,ers you know what swr is ....
> then act like you do and dont act like you are a standing wave ratio
(3:1)
> And its got nothing to do with me being Canadian either...
> Lets get along and stop picking on people..
> Grow up!!!!!!!
> "Airy R. Bean" <me@privacy.net> wrote in message
> news:2ssb1jF1ngvmbU1@uni-berlin.de...
> > And here in Britland, those who originated or who now
> > support the gangrenous degeneration that is the M3/CB
> > Fools License scheme have f*cked Ham Radio good and proper!
> > "Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
> > news:ck9pu6$47o$1@titan.btinternet.com...
> > > All physical contact and association between people of all ages is
> > > fundamentally sexual in nature. It's for the propagation of our
> species.
> > > Otherwise there is no genetical reason for contact. It's all built

into
> > our
> > > genes.

------ooooo-----

What is Ham Radio?

Ham Radio is a technical pursuit for those who
are interested in the science of radio wave
propagation and who are also interested in the
way that their radios function. It has a long-standing
tradition of providing a source of engineers who
are born naturals.

Ham Radio awakens in its aficionados a whole-life
fascination with all things technical and gives
an all-abiding curiosity to improve one's scientific
knowledge. It's a great swimming pool, please dive in!

This excitement causes a wish to share the experience
with ones fellow man, and shows itself in the
gentlemanly traditions of Ham Radio.

Radio Hams are qualified to design, build and then
operate their own pieces of equipment. They do this
with gusto, and also repair and modify their own
equipment.

The excitement that drives a Radio Ham starts with
relatively simple technologies at first, perhaps making
his own Wimshurst machine and primary cells. Small pieces
of test equipment follow, possibly multimeters and signal
generators. Then comes receivers and transmitters. It is with
the latter that communication with like-minded technically
motivated people takes off. The scope for technical
development grows with the years
and now encompasses DSP and DDS. There is also a great deal
of excitement in the areas of computer programming to
be learnt and applied.

The technical excitement motivates Radio Hams to compete
with each other to determine who has designed and manufactured
the best-quality station. This competitiveness is found in DXing,
competitions and fox-hunts.

-----OOOOO----

However, beware! A Ham Radio licence is such a
desirable thing to have that there are large
numbers of people who wish to be thought of
as Radio Hams when, in fact, they are nothing
of the kind! Usually such people are a

variation of the CB Radio hobbyist; they buy their
radios off the shelf and send them back to be
repaired; they are not interested in technical discussion
and sneer at those who are; they have no idea how
their radios work inside and have no wish to find out;
they are free with rather silly personal insults;
they have not satisfied any technical qualification
and their licences prevent the use of
self-designed-and-built equipment.

These CB types engage in the competitive activities
with their Cheque-Book-purchased off-the-shelf radios
in a forlorn effort to prove that they are Radio Hams.

No _REAL_ Radio Hams are deceived by such people!

3290. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-23 09:46:43 UTC
From: Frank Turner-Smith G3VKI <g3vki@turner-smith.co.uk>
Message-ID: <2tunnrF25690nU1@uni-berlin.de>
Source record: 22474
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur,uk.tech.broadcast

"Airy R. Bean, village idiot" <me@privacy.net> emptied the contents of her
tamon into message news:2tujenF24ua7tU1@uni-berlin.de...
>I think that you misunderstand what is being said.
>
> Ham Radio is not a "hobby"; that is a description of
> CB Radio.
>
< large quantity of moronic, repetitious garbage snipped >

YAWN, now run away and play on the M4, there's a good Anus
...(_!_)...

3291. Those Old COM Port Blues

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-23 12:12:44 UTC
From: Joe McElvenney <ximac@btinternet.com>
Message-ID: <VA.0000000c.00188d56@btinternet.com>
Source record: 22475

Hi,

I'm keying my rig on RTTY via COM-1 of the computer but on start-up none of the standard software packages can find a COM port to use. If I go into 'Device Manager' though, delete a port and then re-install it, everything works fine until next time. This I guess means that the ports are not being initialised.

Has anyone come across this and is there a simple fix? I have already asked this question in the appropriate OS group (Windows XP Home) but to no avail.

Cheers - Joe, G3LLV

3292. Re: Those Old COM Port Blues

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-23 12:13:05 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2tv0koF24kblfU1@uni-berlin.de>
Source record: 22476

Is it possible that the lithium cell on the mother board
has gone down, (so losing all your set-up info)
and that when you reboot, your CPU
does so with its default configuration?

"Joe McElvenney" <ximac@btinternet.com> wrote in message
news:VA.0000000c.00188d56@btinternet.com...
> I'm keying my rig on RTTY via COM-1 of the computer but on
> start-up none of the standard software packages can find a COM
> port to use. If I go into 'Device Manager' though, delete a port
> and then re-install it, everything works fine until next time.
> This I guess means that the ports are not being initialised.
> Has anyone come across this and is there a simple fix? I have
> already asked this question in the appropriate OS group (Windows
> XP Home) but to no avail.

3293. Re: Those Old COM Port Blues

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-23 16:30:17 UTC
From: "Gary P. Fiber" <g.fiber@verizon.net>
Message-ID: <7e1ln09ilv8a00j6a2givicvrd3t1eh8g6@4ax.com>
Source record: 22477

On Sat, 23 Oct 2004 12:12:44 +0000 (UTC), Joe McElvenney
<ximac@btinternet.com> wrote:

>Hi,
>
> I'm keying my rig on RTTY via COM-1 of the computer but on
>start-up none of the standard software packages can find a COM
>port to use. If I go into 'Device Manager' though, delete a port
>and then re-install it, everything works fine until next time.
>This I guess means that the ports are not being initialised.
>
> Has anyone come across this and is there a simple fix? I have
>already asked this question in the appropriate OS group (Windows
>XP Home) but to no avail.
>
>
> Cheers - Joe, G3LLV
>

Do you have a PDA ? If so your may be running a com port Hot Sync
software on start up. I just installed some software for a Fluke
Scopemeter and ran into the very similar issue. The software
complained COM 1 was in use.

also possible in the system bios the com port is not enabled.

There have been some issues with Windows XP and how it allows for com
port control, you might do some google searches on that.

Gary

3294. Re: Those Old COM Port Blues

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-23 17:47:18 UTC
From: sdeyoreo@hotmail.com
Message-ID: <kt5ln09o03t7o4vnahfqj4n3lmq7ao8fkn@4ax.com>
Source record: 22478

XP won't let you use the ports, some security issue. "
Being a very secure operating system, Windows NT
assigns some privileges and restrictions to different types of
programs running on it.It classifies all the programs in to two
categories , User mode and Kernel mode ie; running in ring3 and ring0
modes. user mode programs are running in ring3 mode and Kernel mode
programs are running in ring0 mode. The programs you generally write
falls in the user mode category. The user mode programs are restricted
to use certain instructions like IN, OUT etc.. Whenever the operating
system find that a user mode program is trying to execute such
instructions , the operating system stops execution of those programs
and will display an error message." from
http://www.logix4u.net/inpout32.htm

On Sat, 23 Oct 2004 12:12:44 +0000 (UTC), Joe McElvenney
<ximac@btinternet.com> wrote:

>Hi,
>
> I'm keying my rig on RTTY via COM-1 of the computer but on
>start-up none of the standard software packages can find a COM
>port to use. If I go into 'Device Manager' though, delete a port
>and then re-install it, everything works fine until next time.
>This I guess means that the ports are not being initialised.
>
> Has anyone come across this and is there a simple fix? I have
>already asked this question in the appropriate OS group (Windows
>XP Home) but to no avail.
>
>
> Cheers - Joe, G3LLV
>

3295. Re: Anyone heard of Y434 tube?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-23 18:05:48 UTC
From: Ken Scharf <wa2mzeNOTTHIS@bellsouth.net>
Message-ID: <R_wed.102401$yp.58485@bignews1.bellsouth.net>
Source record: 22480

Keyboard In The Wilderness wrote:
> There is a pair on e-bay -- sez SIMILAR TO 4CX250 EIMAC/VARIAN
>
> http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=5726073349
went for a good price. I think that is a Russian part number.

3296. Re: Those Old COM Port Blues

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-23 19:13:19 UTC
From: clifto <clifto@clifto.com>
Message-ID: <f3nq42-igd.ln1@remote.clifto.com>
Source record: 22481

sdeyoreo@hotmail.com wrote:
> Being a very secure operating system, Windows NT

Ah haw haw haw haw har har har har ha hAAAAAAAAAAAAAAAAAAAAAAAA!
har hee hee hyuck *snort* titter guffaw chortle giggle.

--
While an officer in the US Navy, Kerry gave aid and comfort to enemies of the
US. Kerry is therefore ineligible to be President, according to the Fourteenth
Amendment to the Constitution.

3297. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-23 21:15:51 UTC
From: Frank Turner-Smith G3VKI <g3vki@turner-smith.co.uk>
Message-ID: <2u003tF2505dhU1@uni-berlin.de>
Source record: 22482
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur,uk.tech.broadcast

```
<lucifer@eternal-flames.gov> wrote in message
news:b1kkn0tn7bdgs0960l9ntqtobvab5g61pq@4ax.com...
> On Sat, 23 Oct 2004 10:46:43 +0100, "Frank Turner-Smith G3VKI"
> <g3vki@turner-smith.co.uk>, paused briefly between playing with his
> doll's house, to write:
>
>>"Airy R. Bean, village idiot" <me@privacy.net> emptied the contents of her
>>tampon into message news:2tujenF24ua7tU1@uni-berlin.de...
>>>I think that you misunderstand what is being said.
>>>
>>> Ham Radio is not a "hobby"; that is a description of
>>> CB Radio.
>>>
>>>< large quantity of moronic, repetitious garbage snipped >
>>
>>YAWN, now run away and play on the M4, there's a good Anus
>
> What have you got against people driving on the M4...
> Apart from in those bleedin' bus lanes?
>
>
I meant the bit of the M4 that passes Chippenham, not the bit some twat put
a bus lane down the middle of.
Let me know when Airy's due to play on the Chippenham stretch and I
volunteer to be the truck driver that squashes him.
--
;>)
73 de Frank Turner-Smith G3VKI - mine's a pint.
http://turner-smith.co.uk
```

3298. Re: 2.4Ghz PA module recommendation required

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-23 23:09:19 UTC
From: fmmck@aol.com
Message-ID: <20041023190919.03719.00001829@mb-m26.aol.com>
Source record: 22483

<< Any suggestions? Thinking in terms of maybe 10W out / 200mW in or thereabouts. >>

Paul-

Kenwood may have made a 2400 MHz version of the TM-742, except it was equipped with only the one band module. I recall seeing a photo on a web site, but have not been able to find any additional information, so it may have only been a proposed product that was never produced.

If such a rig was actually produced, then you should be able to obtain one of the 2400 MHz amplifier modules as a replacement part.

Last year I replaced the Two Meter "SAV17" Fifty Watt module in my TM-742. It was obtained from RF Parts Company, http://www.rfparts.com/. Their catalog lists other similar modules for other frequency ranges, but none listed in their catalog are higher than 1300 MHz.

Four companies were mentioned as producing such modules, so researching their web sites might turn up what you are looking for. They are Motorola, Mitsubishi Electric, Philips and Toshiba.

73, Fred, K4DII

3299. Re: PT9703 RF transistor - anyone know the spec on it?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-23 23:37:21 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <inqln0ljd2aocb6h261vbm4qja7suss3jj@4ax.com>
Source record: 22484
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Fri, 22 Oct 2004 13:30:18 GMT, "w9gb" <onw9mapsgb@no.arrl.spam.net>
wrote:

>
>Yes, the "PT" was second sourced from TRW.
>
like "SRF" from Motorola?

73, JM

J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

3300. Radware DSP100 "software" Transceiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-23 23:38:19 UTC
From: "Michael St. Angelo" <mstangelo@comcast.net>
Message-ID: <4aOdnQS1wfn_dufcRVn-2Q@comcast.com>
Source record: 22485
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

I fired up my old 486 PC and tested a Radware DSP100 transceiver.

The DSP100 was an early attempt at a transceiver with a digital IF and modulation/demodulation
stages. It was a direct conversion transceiver.,built on a plugin ISA board, with a PLL/DDS synthesizer that
drove a Quadrature Mixer. Te two outputs of the quadrature mixer fed the left and right channels of the computer sound card
which did the filtering and demodulation/modulation.

It was produced by Comer Communications in the 1980's. The hardware and software was developed by two brothers, Alan and Brian Comer.

The sensitivity was fair and the software I have has some bugs, but it was a gallant attempt at the first
generation of "software defined receiver".

Does anyone have one or know what happened to Comer communications or have any experiences with the DSP100?
I have software versions 1.19 through 1.22. Does anyone have any later versions?

73,

Mike N2MS

3301. Need Information on RF Power Module

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-23 23:49:02 UTC
From: MikeS <nospam@spam.com>
Message-ID: <O5Ced.28331$5v2.6231@fe2.columbus.rr.com>
Source record: 22486

I have what appears to be an RF final module probabally from a commercial two-way mobile. Brown fins, UHF output connector with a small coax cable for the input. On the other end is a three conductor Molex type connector that has three wires on it but they don't connecto to the module. There a 5-conductor ribbon cable connected to various parts of the RF module. A couple of the wires are connected to temperature sensors on the heat sink and RF brick.

I am trying to figure out what the RF brick is. The numbers on the brick are:
185
3727966-1
144

The brick is blue and has no other symbols or markings. The RF module itself has no markings.

Anyone have any information on what the brick may be rated for?

3302. Re: Anyone heard of Y434 tube?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-24 00:11:26 UTC
From: hexter@blazenet.net
Message-ID: <10nlspemrjr1t86@corp.supernews.com>
Source record: 22487

In article <Xns95895FA4353CGormenghast@64.59.144.76>, bobysgotguns@yahoo.com says...
>
>I couldn't find any information online about this tube. Any info is
>appreciated.

Go directly to the Eimac website. They have added a whole line of newer version tubes using the 'Y' identification for the series. Many are similar to the older tetrodes, and many have weird shapes, and sockets.

3303. Re: Top coupled resonators (more bandstop filters)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-24 02:13:37 UTC
From: john jardine <john@jjdesigns.fsnet.co.uk>
Message-ID: <cle5vb$7g1$1@newsg2.svr.pol.co.uk>
Source record: 22479

"Joel Kolstad" <JKolstad71HatesSpam@Yahoo.Com> wrote in message
news:LpCdnY5IYMn_O-TcRVn-tA@comcast.com...
> "john jardine" <john@jjdesigns.fsnet.co.uk> wrote in message
> news:cku2e3$hk0$1@news7.svr.pol.co.uk...
> > The way to go is firstly design a prototype low pass filter. Then
> > transform
> > it to its high pass equivalent. Then transform to the band stop design.
>
> This (alone) doesn't work if you want a 2% bandwidth filter at 500MHz
built
> using lumped L's and C's with finite Q's. Try it. :-)
>
> ---Joel
>
>
Most certainly not up at that frequency. Just too many parasitics. :-).
(Even 150MHz is pushing it).
regards
john

3304. Re: Need Information on RF Power Module

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-24 03:51:39 UTC
From: Gennady Padalka <nospam@nospam.com>
Message-ID: <2u0n5vF240t3dU1@uni-berlin.de>
Source record: 22488

"MikeS" <nospam@spam.com> wrote in message
news:O5Ced.28331$5v2.6231@fe2.columbus.rr.com...
> I have what appears to be an RF final module probabally from a commercial
> two-way mobile. Brown fins, UHF output connector with a small coax cable
> for the input. On the other end is a three conductor Molex type connector
> that has three wires on it but they don't connecto to the module. There a
> 5-conductor ribbon cable connected to various parts of the RF module. A
> couple of the wires are connected to temperature sensors on the heat sink
> and RF brick.
>
> I am trying to figure out what the RF brick is. The numbers on the brick
> are:
> 185
> 3727966-1
> 144
>
> The brick is blue and has no other symbols or markings. The RF module
> itself has no markings.
>
> Anyone have any information on what the brick may be rated for?
>
>
>

Post some pictures of it on at free image hosting place, so we can see it.

3305. Re: PT9703 RF transistor - anyone know the spec on it?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-24 06:05:41 UTC
From: legg <legg@nospam.magma.ca>
Message-ID: <legmn09p3a67tnl83201k9kboc3033nuj1@4ax.com>
Source record: 22489
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Sun, 24 Oct 2004 01:37:21 +0200, J M Noeding <la8ak@online.no>
wrote:

>On Fri, 22 Oct 2004 13:30:18 GMT, "w9gb" <onw9mapsgb@no.arrl.spam.net>
>wrote:
>
>
>>
>>Yes, the "PT" was second sourced from TRW.
>>
>like "SRF" from Motorola?
>

The Motorola part carried the same part number.

RL

3306. Re: PT9703 RF transistor - anyone know the spec on it?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-24 06:34:35 UTC
From: legg <legg@nospam.magma.ca>
Message-ID: <51jmn0dceda6e16rqk3a222pnn2jn9nbqf@4ax.com>
Source record: 22490
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Sun, 24 Oct 2004 01:37:21 +0200, J M Noeding <la8ak@online.no>
wrote:

>On Fri, 22 Oct 2004 13:30:18 GMT, "w9gb" <onw9mapsgb@no.arrl.spam.net>
>wrote:
>
>
>>
>>Yes, the "PT" was second sourced from TRW.
>>
>like "SRF" from Motorola?
>

Actually the TRW facility at Lawndale was purchased outright by
Motorola sometime between 1987 and 1990. The PT9703 was never
available from both mfrs simultaneously, so it was always
single-sourced.

RL

3307. Re: Anyone heard of Y434 tube?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-24 07:29:54 UTC
From: Prune <bobysgotguns@yahoo.com>
Message-ID: <Xns958C516B1C1BGormenghast@64.59.144.76>
Source record: 22491

>> http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=5726073349
> went for a good price. I think that is a Russian part number.

That was me that bought them. I asked EIMAC, and they said they were a version of 4X150A specialized for audio (= gold plated grid). Mystery solved.

3308. Re: Need Information on RF Power Module

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-24 14:24:27 UTC
From: MikeS <nospam@spam.com>
Message-ID: <vWOed.31137$5v2.8909@fe2.columbus.rr.com>
Source record: 22492

I will try to get a few pictures of the module on the web later today.

Mike

"Gennady Padalka" <nospam@nospam.com> wrote in message
news:2u0n5vF240t3dU1@uni-berlin.de...
>
> "MikeS" <nospam@spam.com> wrote in message
> news:O5Ced.28331$5v2.6231@fe2.columbus.rr.com...
> > I have what appears to be an RF final module probabally from a
commercial
> > two-way mobile. Brown fins, UHF output connector with a small coax
cable
> > for the input. On the other end is a three conductor Molex type
connector
> > that has three wires on it but they don't connecto to the module. There
a
> > 5-conductor ribbon cable connected to various parts of the RF module. A
> > couple of the wires are connected to temperature sensors on the heat
sink
> > and RF brick.
> >
> > I am trying to figure out what the RF brick is. The numbers on the
brick
> > are:
> > 185
> > 3727966-1
> > 144
> >
> > The brick is blue and has no other symbols or markings. The RF module
> > itself has no markings.
> >
> > Anyone have any information on what the brick may be rated for?
> >
> >
> >
>
> Post some pictures of it on at free image hosting place, so we can see it.
>
>

3309. Re: Question about indutances

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-24 15:36:47 UTC
From: k7itm@aol.com
Message-ID: <3200347.0410240736.8846399@posting.google.com>
Source record: 22493

"ON5MJ" <my_call_sign@skynet.be> wrote in message
news:<417982fc$0$12463$ba620e4c@news.skynet.be>...
...
> But how to estimate the degree of
> coupling for two close coils in line ?
>
One way to do this: use standard coil formulas to find the inductance of the whole coil, and of the part of the coil left unshorted, and of the part of the coil which is shorted out. From those three inductances, calcualte the coupling coefficient or the mutual inductance. Or...just measure it: you can measure the part of the coil which will be "in use" and see how much it changes as you short or open the other section.

Cheers,
Tom

3310. Re: Those Old COM Port Blues

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-24 17:57:49 UTC
From: microwaves@blueyonder.co.uk
Message-ID: <417becc8.3846300@news.blueyonder.co.uk>
Source record: 22494

Have you got the ports turned on in your BIOS Joe? Press DEL on boot up and have a look!

Peter, G3PHO

On Sat, 23 Oct 2004 12:12:44 +0000 (UTC), Joe McElvenney <ximac@btinternet.com> wrote:

>Hi,
>
> I'm keying my rig on RTTY via COM-1 of the computer but on
>start-up none of the standard software packages can find a COM
>port to use. If I go into 'Device Manager' though, delete a port
>and then re-install it, everything works fine until next time.
>This I guess means that the ports are not being initialised.
>
> Has anyone come across this and is there a simple fix? I have
>already asked this question in the appropriate OS group (Windows
>XP Home) but to no avail.
>
>
> Cheers - Joe, G3LLV
>

3311. FA:JAMES MILLEN TONE MOD+ANT.BRIDGE

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-24 20:40:51 UTC
From: Heytubeguy <heytubeguy@worldnet.att.net>
Message-ID: <nrUed.25503$OD2.22087@bgtnsc05-news.ops.worldnet.att.net>
Source record: 22496

Have other parts etc too. See at

http://search.ebay.com/_W0QQgotopageZ1QQsassZheytubeguyQQsorecordsperpageZ25QQsosortorderZ1QQsosortpropertyZ1

Tnx heytubeguy

3312. motorboating in cascaded AF amplifier chain, help!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-24 21:30:59 UTC
From: The Eternal Squire <eternalsquire@comcast.net>
Message-ID: <7IidnaoPDtaOguHcRVn-1A@comcast.com>
Source record: 22497

Hi,

I've been trying to build my first superhet but I have been having problems.

What I have been doing is building seperate boards for each of the stages and debugging them seperately. I worked on the audio stages first.

My two AF boards are: 1) a low level X100 amplifier, and 2) an LM386 based power amplifier connected to speaker by RC network. Power supply is a 9V battery.

Each of these boards work fine seperately, I have tested them with an audio signal source and a scope. I used ground plane construction with each of these.

However, when I try to use capacitive or inductive coupling between the stages, I get the classic symptoms of motorboating... 10 to 45 hz out of the loudspeaker.

I have the ground planes of each respective board on a piece of aluminum foil, and both boards are connected in parallel to the 9V battery.

Advice, anyone?

Thanks,

The Eternal Squire

3313. Station Mic Switch

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-24 21:41:36 UTC
From: KU4YP <ku4yp@verizon.net>
Message-ID: <kkVed.3882$8R.2887@trnddc02>
Source record: 22399

hello all,

has anyone built with any degree of success a station mic switch? i would like to somehow interface all the rigs in the shack to my heil mic. if someone would be so kind as to send a schematic and parts list of what they built i would appreciate it.

BTW, all the rigs i wish to interface to the mic have the same impedence.

73 mike ku4yp

3314. Re: Those Old COM Port Blues

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-24 21:53:49 UTC
From: Joe McElvenney <ximac@btinternet.com>
Message-ID: <VA.00000014.0076b9dc@btinternet.com>
Source record: 22398

Hi,

Thanks for the suggestions everybody but I've already rounded up the usual suspects. I know that XP doesn't allow bit banging of the ports but it should be able to handle calls to them from applications in the usual way. If the COM port was not set up in the BIOS I wouldn't be able to start it via 'Device Manager', so this must be an issue between XP Home (SP2) and my machine.

Before I do something desperate like reloading the OS, I'm looking for a quick and dirty way to cycle the hardware. It only takes a few moments to do this from the keyboard but something like a macro would be nice.

Thanks again - Joe G3LLV

3315. Re: motorboating in cascaded AF amplifier chain, help!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-24 22:07:42 UTC
From: Adrian Brentnall <adrian@ambquality.co.uk>
Message-ID: <0g9on0t9b0kv8c047bvrruke7mbboq07fq@4ax.com>
Source record: 22400

Hi

On Sun, 24 Oct 2004 14:30:59 -0700, The Eternal Squire
<eternalsquire@comcast.net> wrote:

>Hi,
>
>I've been trying to build my first superhet but I have been having problems.

<snip details>

>
>However, when I try to use capacitive or inductive coupling between
>the stages, I get the classic symptoms of motorboating... 10 to 45 hz
>out of the loudspeaker.
>
>I have the ground planes of each respective board on a piece of aluminum
>foil, and both boards are connected in parallel to the 9V battery.
>
>Advice, anyone?
>
>Thanks,
>
>The Eternal Squire
>

Some wild guesses <g>

- not enough decoupling on the 9v rail of the audio power amp (a
couple of hundred uF's as close as possible to the chip)

- speaker leads running too close to the inputs to the x100 amp

- try running the x100 board at less than 9v (anything from some
resistance and a decent electrolytic in the 9v line up to some
'proper' voltage regulation)

- some kind of an earth loop ? - if the board are connected by coax
try lifting the braid at one end of the cable

Hope these help ....?

Adrian
Suffolk UK

3316. Re: motorboating in cascaded AF amplifier chain, help!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-24 22:25:07 UTC
From: The Eternal Squire <eternalsquire@comcast.net>
Message-ID: <-vKdnU9hyfxbtuHcRVn-rA@comcast.com>
Source record: 22401

> - not enough decoupling on the 9v rail of the audio power amp (a
> couple of hundred uF's as close as possible to the chip)

You mean short the power leads of the 386 with 220uf? Also, the
X100 amplifier is an AMD instrumentation amp, should I short those
with a cap as well?

>
> - speaker leads running too close to the inputs to the x100 amp
>

The chain is in a single line, inputs on the left coming from
attenuated audio source, and about a foot to the right start the
leads to the speaker, thoseleads are only a few inches.

> - try running the x100 board at less than 9v (anything from some
> resistance and a decent electrolytic in the 9v line up to some
> 'proper' voltage regulation)
>

I had read an article today on solving motorboating in tube audio
chains, and the B+ in each of the chains have different voltages. The
final stage had +220 V, the stage just before that +200 V, the stage
before that had +180 V, and resistors were used as the voltage drops.
I do not understand how that solved motorboating.

I mean, what I would do is place an 8V regular between the battery
and my X100 stage, and run the final stage off the 9V battery itself.
But can you tell me why this should work?

> - some kind of an earth loop ? - if the board are connected by coax
> try lifting the braid at one end of the cable
>

You mean leave the coax floating at one end? Wouldn't that disable
common-mode signal rejection?

> Hope these help ....?
>
> Adrian
> Suffolk UK
>

3317. Re: motorboating in cascaded AF amplifier chain, help!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-24 22:42:54 UTC
From: Adrian Brentnall <adrian@ambquality.co.uk>
Message-ID: <5fbon01kk0e7cs5tia9qb3sepikv3gd0sa@4ax.com>
Source record: 22402

HI again

On Sun, 24 Oct 2004 15:25:07 -0700, The Eternal Squire
<eternalsquire@comcast.net> wrote:

>> - not enough decoupling on the 9v rail of the audio power amp (a
>> couple of hundred uF's as close as possible to the chip)
>
>You mean short the power leads of the 386 with 220uf? Also, the
>X100 amplifier is an AMD instrumentation amp, should I short those
>with a cap as well?

Certainly you'd do well to get some capacitance across the 386.
The AMD amp is less critical - but you might like to put something a
bit smaller there as well. Can you put the circuits of the two modules
up on the web somewhere ?

>
>>
>> - speaker leads running too close to the inputs to the x100 amp
>>
>
>The chain is in a single line, inputs on the left coming from
>attenuated audio source, and about a foot to the right start the
>leads to the speaker, thoseleads are only a few inches.

Sounds OK

>
>> - try running the x100 board at less than 9v (anything from some
>> resistance and a decent electrolytic in the 9v line up to some
>> 'proper' voltage regulation)
>>
>
>I had read an article today on solving motorboating in tube audio
>chains, and the B+ in each of the chains have different voltages. The
>final stage had +220 V, the stage just before that +200 V, the stage
>before that had +180 V, and resistors were used as the voltage drops.
>I do not understand how that solved motorboating.
>
>I mean, what I would do is place an 8V regular between the battery
>and my X100 stage, and run the final stage off the 9V battery itself.
>But can you tell me why this should work?

I'm guessing (!) that your problems could be caused this way....

The power amp will pull a reasonably heavy current from the 9v battery
on audio peaks. This will result in the 9v 'dipping'. If the x100 amp
stage isn't decoupled itself then it may see the drop in the 9v rail
as a signal, which it will try to amplify. If it succeeds in doing
this then the power amp will pull a reasonably heavy current ... and
so it goes on. This could be the cuase of your oscillation..?
A big decoupling cap at the power amp will help to keep the 9v rail
constant, and mght cure the problem.

>
>> - some kind of an earth loop ? - if the board are connected by coax
>> try lifting the braid at one end of the cable
>>
>
>You mean leave the coax floating at one end? Wouldn't that disable
>common-mode signal rejection?

All depends how the other wiring runs. Try it & see ?

Regards

Adrian
Suffolk UK

3318. Philips BLU99 RF transistor - anyone know where I can find a pdf data file for it?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-24 23:07:23 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <67don0piqdofru5obe7270bog94dbu24qg@4ax.com>
Source record: 22403

I've tried Googling, but it might be an obsolete device?
Also interested to see any application for low noise RX pre-amplifier

73
Jan-Martin

J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

3319. Is that a radio wire?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-24 23:30:48 UTC
From: political commentator <political.commentator@gmail.com>
Message-ID: <clhdv8ank1@xuxa.iecc.com>
Source record: 22405
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.broadcasting,rec.radio.cb,rec.radio.info,rec.radio.scanner,rec.radio.shortwave

New evidence emerging in "BUSH WIRED" story - see the wire....

During the second Presidential debate on Friday, October 8th President Bush adjusted his tie; a gesture which exposed a black object contrasting a white shirt.

Look:

http://puppetstring.blogspot.com

Is it a wire?

No registration is required, you can post anonymously

3320. Re: Station Mic Switch

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-25 02:31:11 UTC
From: w9gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <PzZed.2288$R05.1444@attbi_s53>
Source record: 22406

"KU4YP" <ku4yp@verizon.net> wrote in message
news:kkVed.3882$8R.2887@trnddc02...
> hello all,
>
> has anyone built with any degree of success a station mic switch? i
> would like to somehow interface all the rigs in the shack to my heil mic.
> if someone would be so kind as to send a schematic and parts list of what
> they built i would appreciate it.
>
> BTW, all the rigs i wish to interface to the mic have the same
> impedence.
>
> 73 mike ku4yp
>
Mike -

Projects like this appear regularly in the amateur literature.

Chris Cieslak, AA9HD had a November 1997 QST article, "A simple
microphone/TNC/SSTV Switch" (Adobe Acrobat available to members from ARRL
web site)

The article references a Radio Shack multi-pole switch (275-1386A) -- which
may no longer be available. An old manual serial or parallel connector
switch can be salvaged (tons of this stuff in junk yards allover country)
for the manual (multi-pole) radio switch.

w9gb

3321. Re: What's this inductor doin'?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-25 02:39:02 UTC
From: john jardine <john@jjdesigns.fsnet.co.uk>
Message-ID: <clgrqqtqn1@news8.svr.pol.co.uk>
Source record: 22495
Cross-posted to: sci.electronics.basics,rec.radio.amateur.homebrew

"Airy R. Bean" <me@privacy.net> wrote in message
news:2tf8jbF1ufesdU1@uni-berlin.de...
> Question - what is the internal modelling technique used
> by these various programs, and can we produce our own package?
>
> Is it based upon successive delta-time increments, and if so, what
> is the increment? What prompted the last question is an attempt
> I made to create a sine-wave generator using the identity that
> sin dTheta = dTheta, but I had to go for an _extremely_ small
> value of dTheta (ISTR 10^ -18) before getting anything like a
> decent sine wave, and even that degenerated after a few cycles.
>
> So, these circuit simulators - what is their underlying technique
> for circuit simulation?
[clip]

The simulators basically offer 2 types of direct analysis ...
An "AC" analysis and a "Transient" analysis. Their answers come via
different maths methods.
Basically the much less useful 'AC' analysis examines all the wire
connection points 'nodes' in the circuit diagram and enters the found
components in 2 matrices. Each (square) matrix is sized to hold node^2
elements. One is for 'real' components, the other for quadrature components.
All non linear components in the circuit must first be simplified/replaced
by linear equivalants (messy). Matrices are filled in a manner similar to
kirchoffs loops anaysis. Reactive components entering the imaginary matrix.
Ie lots of real/imag simultaneous equations need solving which is of course
why the computer is handy.
After they are filled the matrices are mathematically inverted to give a
complete set of solved phase and ac voltage data for all the node points in
the circuit. Nice for filters useless for oscillators!.

The more useful transient analysis is similar to as you mention (Babbage's
difference engine?) but based simply on the differentials V=L i/t and V=i/C
and uses near complete maths models for the semicons or other non linear
elements. Nodes examined in turn and time steps selected purely on the
basis of how fast the results are changing. time steps can be a problem as
too long and the final results get 'smeared out' hence phase lag artifacts
cause overall loop stability problems.
The TA is conceptually very simple and surprisingly easy and fun to
programme for set piece or well observed circuits but gets *really* spagetti
code messy if it is to work smoothly with any input circuit. Big problems
can turn up getting the results to converge or balance and much progging
effort is needed in this direction.

regards
john

3322. Re: motorboating in cascaded AF amplifier chain, help!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-25 03:30:56 UTC
From: The Eternal Squire <eternalsquire@comcast.net>
Message-ID: <XKmdnUOQfKrt7uHcRVn-qw@comcast.com>
Source record: 22407

I'll certainly try your suggestions and let you know.

Side question: is there a way to design this problem out of
circuits?

For example, would it work if I started with 12V main supply
and placed a 9V regulator on each board? Or would I still get
the same current dipping problem?

Adrian Brentnall wrote:
> HI again
>
> On Sun, 24 Oct 2004 15:25:07 -0700, The Eternal Squire
> <eternalsquire@comcast.net> wrote:
>
>
>>>- not enough decoupling on the 9v rail of the audio power amp (a
>>>couple of hundred uF's as close as possible to the chip)
>>
>>You mean short the power leads of the 386 with 220uf? Also, the
>>X100 amplifier is an AMD instrumentation amp, should I short those
>>with a cap as well?
>
>
> Certainly you'd do well to get some capacitance across the 386.
> The AMD amp is less critical - but you might like to put something a
> bit smaller there as well. Can you put the circuits of the two modules
> up on the web somewhere ?
>
>
>>>- speaker leads running too close to the inputs to the x100 amp
>>>
>>
>>The chain is in a single line, inputs on the left coming from
>>attenuated audio source, and about a foot to the right start the
>>leads to the speaker, thoseleads are only a few inches.
>
>
> Sounds OK
>
>
>>>- try running the x100 board at less than 9v (anything from some
>>>resistance and a decent electrolytic in the 9v line up to some
>>>'proper' voltage regulation)
>>>

>>
>>I had read an article today on solving motorboating in tube audio
>>chains, and the B+ in each of the chains have different voltages. The
>>final stage had +220 V, the stage just before that +200 V, the stage
>>before that had +180 V, and resistors were used as the voltage drops.
>>I do not understand how that solved motorboating.
>>
>>I mean, what I would do is place an 8V regular between the battery
>>and my X100 stage, and run the final stage off the 9V battery itself.
>>But can you tell me why this should work?
>
>
> I'm guessing (!) that your problems could be caused this way....
>
> The power amp will pull a reasonably heavy current from the 9v battery
> on audio peaks. This will result in the 9v 'dipping'. If the x100 amp
> stage isn't decoupled itself then it may see the drop in the 9v rail
> as a signal, which it will try to amplify. If it succeeds in doing
> this then the power amp will pull a reasonably heavy current ... and
> so it goes on. This could be the cuase of your oscillation..?
> A big decoupling cap at the power amp will help to keep the 9v rail
> constant, and mght cure the problem.
>
>
>>>- some kind of an earth loop ? - if the board are connected by coax
>>>try lifting the braid at one end of the cable
>>>
>>
>>You mean leave the coax floating at one end? Wouldn't that disable
>>common-mode signal rejection?
>
>
> All depends how the other wiring runs. Try it & see ?
>
> Regards
>
> Adrian
> Suffolk UK

3323. Re: Tube current sink

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-25 06:20:37 UTC
From: Prune <bobysgotguns@yahoo.com>
Message-ID: <Xns958CED7C4C621Gormenghast@64.59.144.76>
Source record: 22408

I got a pair of unused Y-434 (version of 4X150A with gold-plated grid)
ceramic beam tetrodes for $10 from eBay. Someone told me to drive them
grounded grid, similarly to this electrostatic headphone amplifier:
http://www.headwize.com/projects/showproj.php?file=gilmore4_prj.htm
I found cheap sockets, but no chimneys. Is it possible to DIY chimneys?
And what's the best approach to quieting the forced air cooling blower?

3324. Re: Philips BLU99 RF transistor - anyone know where I can find a pdf data file for it?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-25 06:57:49 UTC
From: Dirk Kautz <dirkstonne@online.de>
Message-ID: <dirkstonne-C01ED7.08574825102004@news.t-online.com>
Source record: 22409

In article <67don0piqdofru5obe7270bog94dbu24qg@4ax.com>,
J M Noeding <la8ak@online.no> wrote:

> I've tried Googling, but it might be an obsolete device?
> Also interested to see any application for low noise RX pre-amplifier
>
> 73
> Jan-Martin
> ---
> J. M. Noeding, LA8AK, N-4623 Kristiansand
> http://home.online.no/~la8ak/c.htm

You can find it at:

http://www.semiconductors.philips.com/pip/BLU99_99-SL_CNV_2.html

Cheers,

Dirk

3325. Re: What's this inductor doin'?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-25 07:29:26 UTC
From: john jardine <john@jjdesigns.fsnet.co.uk>
Message-ID: <clhcrm$bb6$1@news8.svr.pol.co.uk>
Source record: 22404
Cross-posted to: sci.electronics.basics,rec.radio.amateur.homebrew

"J M Noeding" <la8ak@online.no> wrote in message
news:dc15n0dima7ip954c5tf35vp9v9efraoe2@4ax.com...
> On Sun, 17 Oct 2004 15:00:49 +0100, "Airy R. Bean" <me@privacy.net>
> wrote:
[clip]
> But for Radcom, I must admit that I mainly read G3VA's "Technical
> topics"
>
> My radio club was Worcester &DARC, suppose it is not so much activity
> there now....
>
> ---
> J. M. Noeding, LA8AK, N-4623 Kristiansand
> http://home.online.no/~la8ak/c.htm

To me, Pat Hawker is the defining spirit of UK amateur radio.
I've also picked up much fascinating stuff from his technical-topics and the
mentions of his SOE work in WW2.
regards
john

3326. Re: Question about indutances

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-25 10:32:48 UTC
From: ON5MJ <my_call_sign@skynet.be>
Message-ID: <417cd567$0$7075$ba620e4c@news.skynet.be>
Source record: 22410

Thank you Bill, Tim and Tom for your interesting points of view.

73 de ON5MJ - Jacques.

3327. Re: Station Mic Switch

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-25 11:58:53 UTC
From: Joe McElvenney <ximac@btinternet.com>
Message-ID: <VA.00000017.00d0afd4@btinternet.com>
Source record: 22411

Hi,

> has anyone built with any degree of success a station mic switch? i
> would like to somehow interface all the rigs in the shack to my heil mic. if
> someone would be so kind as to send a schematic and parts list of what they
> built i would appreciate it.
>
> BTW, all the rigs i wish to interface to the mic have the same
> impedence.

One important point is to make sure that the microphone ground (not the cable screen) is treated as a separate 'live' wire throughout and not grounded in the switch only in the rigs. Failure to do this can result in hum loops.

Cheers - Joe

3328. Any microwavers used one of these?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-25 12:00:27 UTC
From: Dave Bullock <DaveB@ihr.mrc.ac.uk>
Message-ID: <clipsr$hl4$1@oyez.ccc.nottingham.ac.uk>
Source record: 22413

Hi Guys,

I am looking to identify the PSU requirements and specification for a
set of Sanders Microwave oscillators. type:-

CLC 2-4 (2-4GHz)
CLC 4-7 (4-7GHz)
CLC 7-12 (7-12GHz)

They each come in a red velvet lined case and consist of a heavy grey
painted body (cavity)? with large aluminium calibration scale on the front.
Each has an OCTAL valve base type connector on the rear that looks as
though it is a power-in socket. But are these straight supplies or is
the PSU cleverer?
There is a removable threaded cover at one end and this reveals the base
of a B7G valve, (disc seal triode?) which must be at the bottom of the
cavity as there is a large micrometer drive at the opposite end.
I don't want to dismantle any further for fear of upsetting any calibration.
Has anyone any technical data on these beautiful instruments please?

Thanks...Dave

3329. Re: Station Mic Switch

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-25 12:28:40 UTC
From: Joe McElvenney <ximac@btinternet.com>
Message-ID: <VA.00000018.00ebf5c3@btinternet.com>
Source record: 22412

Hi,

Oops, I that should read -

. . . and not grounded in the switch BUT only at the rigs themselves.

Cheers - Joe G3LLV

3330. Re: Is that a radio wire?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-26 04:13:56 UTC
From: "Leland C. Scott" <kc8ldo@arrl.net>
Message-ID: <clkiu4ojv1@xuxa.iecc.com>
Source record: 22415
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.broadcasting,rec.radio.cb,rec.radio.info,rec.radio.scanner,rec.radio.shortwave

That shouldn't be all that shocking. If it was a "wire" it could have been for almost anything. Remember he is a "Sitting President" with all of the crazy security that goes with the job. It could have been something to do with that. You didn't see any overt signs of security while watching the debates on TV, but I'll bet you there was plenty you didn't see.

--
Leland C. Scott
KC8LDO

Wireless Network
Mobile computing
on the go brought
to you by Micro$oft

"political commentator" <political.commentator@gmail.com> wrote in message
news:clhdv8ank1@xuxa.iecc.com...
>
> New evidence emerging in "BUSH WIRED" story - see the wire....
>
>
> During the second Presidential debate on Friday, October 8th President
Bush
> adjusted his tie; a gesture which exposed a black object contrasting a
white
> shirt.
>
> Look:
>
> http://puppetstring.blogspot.com
>
> Is it a wire?
>
> No registration is required, you can post anonymously
>
>
>

3331. Re: Is that a radio wire?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-26 04:13:57 UTC
From: briangriffey@sbcglobal.net
Message-ID: <clkiu5oki1@xuxa.iecc.com>
Source record: 22416
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.broadcasting,rec.radio.cb,rec.radio.info,rec.radio.scanner,rec.radio.shortwave

And if it was a wire... your point is?

Professor
www.telstar-electronics.com

"political commentator" <political.commentator@gmail.com> wrote in message
news:<clhdv8ank1@xuxa.iecc.com>...
> New evidence emerging in "BUSH WIRED" story - see the wire....
>
>
> During the second Presidential debate on Friday, October 8th President Bush
> adjusted his tie; a gesture which exposed a black object contrasting a white
> shirt.
>
> Look:
>
> http://puppetstring.blogspot.com
>
> Is it a wire?
>
> No registration is required, you can post anonymously

3332. Re: Is that a radio wire?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-26 04:14:02 UTC
From: DLD <cindyd1@ptd.net>
Message-ID: <clkiua$on2$1@xuxa.iecc.com>
Source record: 22414
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.broadcasting,rec.radio.cb,rec.radio.info,rec.radio.scanner,rec.radio.shortwave

You know...maybe you need to have your medicine adjusted??

political commentator wrote:
> New evidence emerging in "BUSH WIRED" story - see the wire....
>
>
> During the second Presidential debate on Friday, October 8th President Bush
> adjusted his tie; a gesture which exposed a black object contrasting a white
> shirt.
>
> Look:
>
> http://puppetstring.blogspot.com
>
> Is it a wire?
>
> No registration is required, you can post anonymously
>
>
>

3333. Re: Is that a radio wire?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-26 12:41:41 UTC
From: political.commentator@gmail.com
Message-ID: <cllgm5$ak2$1@xuxa.iecc.com>
Source record: 22417
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.broadcasting,rec.radio.cb,rec.radio.info,rec.radio.scanner,rec.radio.shortwave

> And if it was a wire... your point is?
>
> Professor
> www.telstar-electronics.com

The point is you want to elect a cheater.

Thats not a very smart thing to do is it?

.....
http://puppetstring.blogspot.com/
http://politicalcommentator.blogspot.com/

>
> "political commentator" <political.commentator@gmail.com> wrote in message
news:<clhdv8ank1@xuxa.iecc.com>...
> > New evidence emerging in "BUSH WIRED" story - see the wire....
> >
> >
> > During the second Presidential debate on Friday, October 8th President Bush
> > adjusted his tie; a gesture which exposed a black object contrasting a white
> > shirt.
> >
> > Look:
> >
> > http://puppetstring.blogspot.com
> >
> > Is it a wire?
> >
> > No registration is required, you can post anonymously

3334. Antenna links on the web.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-26 18:27:53 UTC
From: electronics_tech <electronics_tech@295.ca>
Message-ID: <2u7j9dF275ktgU1@uni-berlin.de>
Source record: 22418

Hello,

During my time surfing the web I have found a number of useful amateur radio antenna links. I would like to share some of these with you to add to your bookmarks or favorite links. For the online calculators I've found that if you save them in Internet Explorer as a web archive .mht file you can use the calculator offline because it is an HTML file. I hope you find these links as useful as I have.

Jim
73 de VE3JGE

www.packetradio.com/jpol.htm j-pole calculator

www.packetradio.com/ant.htm ham antennas

www.hamuniverse.com/antennas.html good antenna info. and calculators

www.geocities.com/n2uhc/homebrew.html good homebrew antenna and radio site

http://users.erols.com/k3mt/k3mt.htm homebrew antennas

http://autoinfo.smartlink.net/kq6rh/antenna/Ant_magi.htm wire antennas

www.qsl.net/kd4sai/distance.html line of sight calculator

www.qsl.net/w4sat/antenna.htm antenna elmer (good site)

www.rigpix.com/index.shtml not about antennas but pictures of ham rigs and scanners

All links verified active as of 2:01 PM 10/26/04.

3335. New Radio Forum

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-26 21:59:59 UTC
From: Goetz <goetz@goetz-von.com>
Message-ID: <clmhcvkvp1@hercules.btinternet.com>
Source record: 22419

A brand new Forum at www.euronium.de
for Amateur and Business Radio.

Kind regards,
Goetz.

3336. Re: Philips BLU99 RF transistor - anyone know where I can find a pdf data file for it?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-26 22:31:56 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <d2ktn0hfmq5mov1n2p3gcekdca37b2acha@4ax.com>
Source record: 22420

On Mon, 25 Oct 2004 08:57:49 +0200, Dirk Kautz <dirkstonne@online.de>
wrote:

>http://www.semiconductors.philips.com/pip/BLU99_99-SL_CNV_2.html

tnx!

J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

3337. Re: Is that a radio wire?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-27 04:11:03 UTC
From: clifto <clifto@clifto.com>
Message-ID: <cln74n$72k$1@xuxa.iecc.com>
Source record: 22421
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.broadcasting,rec.radio.cb,rec.radio.info,rec.radio.scanner,rec.radio.shortwave

political commentary wrote:

>> And if it was a wire... your point is?
>
> The point is you want to elect a cheater.

Evidence of cheating, please.

--
NBC News reported Monday night that those 380 tons of missing explosives were
already gone when U.S. troops arrived at the Al-Qaqaa weapons installation
in April 2003 - one day after Saddam's government was toppled.
New York Times 18 MONTHS LATE, CBS was saving it for election eve ambush!

3338. Re: Is that a radio wire?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-27 04:11:06 UTC
From: Lenny <latvia_lenny@yahoo.com>
Message-ID: <cln74q$74d$1@xuxa.iecc.com>
Source record: 22423
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.broadcasting,rec.radio.cb,rec.radio.info,rec.radio.scanner,rec.radio.shortwave

"political commentary" <political.commentator@gmail.com> wrote in
message news:cllgm5$ak2$1@xuxa.iecc.com...
>> And if it was a wire... your point is?
>>
>> Professor
>> www.telstar-electronics.com
>
>
>
>
> The point is you want to elect a cheater.
>
> Thats not a very smart thing to do is it?
>

Actually, the point is that you are engaging in rank speculation with
no proof, and assuming that it is so because you want it to be so.
That's not a very smart thing to do is it?

3339. Re: Is that a radio wire?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-27 04:11:07 UTC
From: M-Tech <mechtechllc@yahoo.com>
Message-ID: <cln74r$753$1@xuxa.iecc.com>
Source record: 22422
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.broadcasting,rec.radio.cb,rec.radio.info,rec.radio.scanner,rec.radio.shortwave

No. Instead I'll listen to a bunch of bs spewed by people on a NG that keep changing their identity. Without a doubt THEY are much more credible.

Now run off and join the rest of the flock.

Don

"political commentary" <political.commentator@gmail.com> wrote in message news:cllgm5$ak2$1@xuxa.iecc.com...
>> And if it was a wire... your point is?
>>
>> Professor
>> www.telstar-electronics.com
>
>
>
>
> The point is you want to elect a cheater.
>
> Thats not a very smart thing to do is it?
>
> ....
> http://puppetstring.blogspot.com/
> http://politicalcommentator.blogspot.com/
>
>
>
>
>>
>> "political commentator" <political.commentator@gmail.com> wrote in
>> message news:<clhdv8ank1@xuxa.iecc.com>...
>> > New evidence emerging in "BUSH WIRED" story - see the wire....
>> >
>> >
>> > During the second Presidential debate on Friday, October 8th President
>> > Bush
>> > adjusted his tie; a gesture which exposed a black object contrasting a
>> > white
>> > shirt.
>> >
>> > Look:
>> >
>> > http://puppetstring.blogspot.com

>> >
>> > Is it a wire?
>> >
>> > No registration is required, you can post anonymously
>

3340. Administrivia: Is that a radio wire?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-27 06:54:07 UTC
From: "Steven J. Sobol" <sjsobol@JustThe.net>
Message-ID: <clngmf$sp1$1@xuxa.iecc.com>
Source record: 22424
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.broadcasting,rec.radio.cb,rec.radio.info,rec.radio.scanner,rec.radio.shortwave

Forgive me for letting this thread continue as long as it has. I won't be posting it to rec.radio.broadcasting, and it's probably offtopic for the other groups too.

--
JustThe.net Internet & New Media Services, http://JustThe.net/
Steven J. Sobol, Geek In Charge / 888.480.4NET (4638) / sjsobol@JustThe.net
PGP Key available from your friendly local key server (0xE3AE35ED)
Apple Valley, California Nothing scares me anymore. I have three kids.

3341. sabin

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-27 08:29:08 UTC
From: "William E. Sabin" <sabinw@mwci-news>
Message-ID: <10nun3v15l3sj33@corp.supernews.com>
Source record: 22425

Bill W0IYH

3342. Icom 706 MK-II won't power up

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-27 12:55:31 UTC
From: chafik.philo@eudoramail.com
Message-ID: <cacbc942.0410270455.32c393@posting.google.com>
Source record: 22426

My problem is that I have an Icom 706 MK-II, that won't power up.
When I push the power button I can hear a relay click in the radio,
and a thump in the speaker but that is it. I've checked the fuses
internal and external all are ok. Does anyone have any suggestions as
to a fix this problem.

Thanks in advance and 73's
CN8JV Chafik

3343. Re: Icom 706 MK-II won't power up

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-27 14:17:39 UTC
From: Kaskghafmight@hotmail.com
Message-ID: <cloam5$6p8$1@news7.svr.pol.co.uk>
Source record: 22427

Symptom: Radio won't power up.
Probable Cause: Burned ground circuit trace in flex cable.
Cure: Replace flex cable EP2 at main board.

(http://www.icomamerica.com/support/

3344. Re: Icom 706 MK-II won't power up

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-27 14:50:01 UTC
From: Kaskghafmight@hotmail.com
Message-ID: <clocis$85g$1@news7.svr.pol.co.uk>
Source record: 22428

Symptom: Radio won't power up.
Probable Cause: Burned ground circuit trace in flex cable.
Cure: Replace flex cable EP2 at main board.

(http://www.icomamerica.com/support/

3345. Re: Antenna links on the web.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-27 16:07:05 UTC
From: joe <antenna_man@nospam.com>
Message-ID: <417FC7A8.3540079A@nospam.com>
Source record: 22429

Good info,

http://www.cebik.com

massive amount of data and plans for just about any type of antenna,
hf and up !

Antenna
http://www.antennex.com/
http://members.aol.com/k5oe
http://www.softcom.net/users/kd6dks/quad.html
http://www.qsl.net/w3ff/W3FF_5.htm
http://ac6v.com/antprojects.htm
http://www.pilotltd.net/qha.htm
http://www.qsl.net/w5dxp/
http://www.mgs4u.com/fiberg.htm

electronics_tech wrote:

> Hello,
>
> During my time surfing the web I have found a number of useful amateur radio
> antenna links. I would like to share some of these with you to add to your
> bookmarks or favorite links. For the online calculators I've found that if
> you save them in Internet Explorer as a web archive .mht file you can use
> the calculator offline because it is an HTML file. I hope you find these
> links as useful as I have.
>
> Jim
> 73 de VE3JGE
>
> www.packetradio.com/jpol.htm j-pole calculator
>
> www.packetradio.com/ant.htm ham antennas
>
> www.hamuniverse.com/antennas.html good antenna info. and calculators
>
> www.geocities.com/n2uhc/homebrew.html good homebrew antenna and radio
> site
>
> http://users.erols.com/k3mt/k3mt.htm homebrew antennas
>
> http://autoinfo.smartlink.net/kq6rh/antenna/Ant_magi.htm wire antennas
>
> www.qsl.net/kd4sai/distance.html line of sight calculator
>

> www.qsl.net/w4sat/antenna.htm antenna elmer (good site)
>
> www.rigpix.com/index.shtml not about antennas but pictures of ham rigs
> and scanners
>
> All links verified active as of 2:01 PM 10/26/04.

3346. Re: Icom 706 MK-II won't power up

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-27 16:47:09 UTC
From: xpyttl <xpyttl_NOSPAM@earthling.net>
Message-ID: <10nvkhqihlsilae@corp.supernews.com>
Source record: 22430

Don't forget to check your supply. The 706 needs about 11 volts and if you have the backlight turned on, it draws significant current in receive. In my wife's car, on a cold day, I get this symptom if the engine isn't running. If you measure less than 12 volts at the power plug, and/or if your supply lines are a little light, I'd be suspicious of that.

..

"chafik CN8JV" <chafik.philo@eudoramail.com> wrote in message news:cacbc942.0410270455.32c393@posting.google.com...
> My problem is that I have an Icom 706 MK-II, that won't power up.
> When I push the power button I can hear a relay click in the radio,
> and a thump in the speaker but that is it. I've checked the fuses
> internal and external all are ok. Does anyone have any suggestions as
> to a fix this problem.
>
> Thanks in advance and 73's
> CN8JV Chafik

3347. test

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-27 22:32:16 UTC
From: Kaskghafmight@hotmail.com
Message-ID: <clp7lj$p91$1@newsg1.svr.pol.co.uk>
Source record: 22431

[No readable article body recovered]

3348. Inexpensive Network Analyzer, Noise Figure Meter, Spectrum Analyzers, HP8640B's, etc

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-27 23:05:57 UTC
From: Rob <rob@pythonemproject.com>
Message-ID: <fRVfd.326769$D%.72460@attbi_s51>
Source record: 22432

By inexpensive, I mean half the price you would pay on EBay. LOL

1. HP8640B- have 3 of them, will sell them as a package only, $300
All are beat up cosmetically. One works fine. One puts out RF,
but display only works on external input.
Last one has a few freq ranges that do not work. There are a few
people out there who have made a
hobby out of fixing these up or using them for parts, so even the
dead ones are valuable. 440khz to 550Mhz
+17 to -141 dBm, extremely well shielded, useful for MDS
measurments, two for IMD measurements.

2. Agilent HP8712ET Network Analyzer. See Agilent site for details,
look for discontinued models. Is a 75ohm unit
but works well in 50 ohm environment with min-loss pads provided.
$3000. You will never find a modern network
analyzer at this price. (unless its stolen)

3. Noise figure meter. HP8970A with new Micronetics noise head 5db
ENR. $2000. Cosmetically in fair condition.
Operationally good. Will throw in second unit in need of repair
for free.

4. Spectrum Analyzers. HP8558B and HP8559A. Selling both as package.
$1000. Work fine as far as I can tell, but
I am not familiar with using these old units. The 8558 had a
loose concentric level knob. I think I fixed it, but
someone with more knowledge needs to check it out to see if
everything is lined up right before tightening knobs.

All of these units are sold AS-IS, no warranty. Only local OR, WA sales
as these items are very heavy with fragile front
panels. I will ship none of them. Or get a buddy near Portland, OR to
check them out, pay via cashiers check, and ship them.

Basically selling my test bench as I'm moving into an apartment soon.

Respond to Rob N3FT at rob@pythonemproject.com

3349. Re: RMS power a misnomer (Was: CB "Swing"? (proper AM modulation))

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-28 06:23:17 UTC
From: boB_K7IQ <bob@bob.bob>
Message-ID: <uq31o0d5rt79kk8ejed7uqb7c77m05l4g2@4ax.com>
Source record: 22433

My friend, N7TCY wrote this bit regarding RMSpower a few years ago.
We work with inverters so there was some call for it.

http://www.eskimo.com/~bgudgel/cgi-bin/rms/rms.html

boB
K7IQ

On Thu, 21 Oct 2004 10:49:39 -0500, "Steve Nosko"
<suteuve.nosukowicuz@moutouroula.com> wrote:

>
>"Roy Lewallen" <w7el@eznec.com> wrote in message
>news:10ndp8mejp2r119@corp.supernews.com...
>> Steve Nosko wrote:
>> > . . .
>
>> > I am not not trying to prolong the pain (or this thread), it is just
>that I
>> > was born with a bone in my head that makes it hard for me to give up
>> > explaining some basic concept like this. (yep, it can be a curse) . . .
>>
>> Egad, another person with the same genetic defect! Welcome!
>> Roy Lewallen, W7EL
>
>So it's genetic!...
>
>Yea. And I do this in front of a class or 5-15 green students. It SURE is
>rewarding when someone says :"Oooh! NOW I get it!"
>
>73,

3350. Re: RMS power a misnomer (Was: CB "Swing"? (proper AM modulation))

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-28 07:57:19 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10o19ivi3453r51@corp.supernews.com>
Source record: 22434

boB_K7IQ wrote:
> My friend, N7TCY wrote this bit regarding RMSpower a few years ago.
> We work with inverters so there was some call for it.
>
> http://www.eskimo.com/~bgudgel/cgi-bin/rms/rms.html

That looks like a good analysis. I've just put the finishing touches on a non-mathematical analysis which I hope will be helpful for folks who can't or don't want to wade through the math. It uses simple square waves to illustrate the concepts. The link is

http://eznec.com/Amateur/'RMS Power'.pdf

Comments and corrections are welcome, either posted here or emailed to me.

Roy Lewallen, W7EL

3351. Re: RMS power a misnomer (Was: CB "Swing"? (proper AM modulation))

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-28 08:08:13 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10o1a7e8gm4uuac@corp.supernews.com>
Source record: 22435

Hm, my browser doesn't like the name I gave the file. So I've uploaded a second copy with a different name. You can also get it as

http://eznec.com/Amateur/RMS_Power.pdf

Roy Lewallen, W7EL

Roy Lewallen wrote:

> That looks like a good analysis. I've just put the finishing touches on
> a non-mathematical analysis which I hope will be helpful for folks who
> can't or don't want to wade through the math. It uses simple square
> waves to illustrate the concepts. The link is
>
> http://eznec.com/Amateur/'RMS Power'.pdf
>
> Comments and corrections are welcome, either posted here or emailed to me.
>
> Roy Lewallen, W7EL

3352. Re: RMS power a misnomer (Was: CB "Swing"? (proper AM modulation))

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-28 15:49:07 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <clr4im$34h$1@newshost.mot.com>
Source record: 22436

Both the Rosenbaum and Lewallen papers look very good and well written.

I would, however, Roy, make a more explicit statement that while RMS power can be calculated, is has no practical value for the normal considerations of power...and add a note indicating something like that:

"The phrase "RMS Power" has been used in some circles not as an exact use of the term RMS, but rather as an informal "standard" that actually means "average power under specific text conditions". (I refer to an earlier post telling of the single channel, steady state audio power amp measurement) This use of the term "RMS" was originally initiated to call attention to the specific test. Unfortunately, this use has caused some confusion in the use of this terminology and is some of the motivation for the paper."

73, Steve, K9DCI

--
Steve N, K,9;d, c. i My email has no u's.

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:10o1a7e8gm4uuac@corp.supernews.com...
> Hm, my browser doesn't like the name I gave the file. So I've uploaded a
> second copy with a different name. You can also get it as
>
> http://eznec.com/Amateur/RMS_Power.pdf
>
> Roy Lewallen, W7EL
>
> Roy Lewallen wrote:
>
> >
> > That looks like a good analysis. I've just put the finishing touches on
> > a non-mathematical analysis which I hope will be helpful for folks who
> > can't or don't want to wade through the math. It uses simple square
> > waves to illustrate the concepts. The link is
> >
> > http://eznec.com/Amateur/'RMS Power'.pdf
> >
> > Comments and corrections are welcome, either posted here or emailed to
me.
> >
> > Roy Lewallen, W7EL

3353. w7dxx remote base in baghdad soon

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-28 18:04:58 UTC
From: g3zhi@hotmail.com
Message-ID: <419634bc.1656365@news.btinternet.com>
Source record: 22437

w7dxx remote base in baghdad soon

w7dxx plans to install a fully remotely controlled transceiver in
baghdad in
the next month YI9DXX Baghdad

this will be available for any ham in the world who is registered with
w7dxx
to use using voip over the internet for voice qso's

for more information http://www.lamonica.com/

73 Ian G3ZHI

http://www.qsl.net/g3zhi - many ham radio links

http://www.ukirlp.co.uk

G4NJI IRLP 5200 Echolink 135909
Rotherham simplex 145.2875mhz

GB3XN IRLP 5708 Echolink 153126
Langold 430.925 Mhz

Mobile 0783 338 0578

3354. whither regenerative amplifiers?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-28 22:34:27 UTC
From: alanh_27@yahoo.com
Message-ID: <1e3670a7.0410281434.70887cc7@posting.google.com>
Source record: 22438
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design,sci.electronics.misc,alt.ham-radio

Is there a place in modern technique for regeneration (Q-multiplication)?

3355. Re: whither regenerative amplifiers?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-28 23:15:23 UTC
From: Joerg <notthisjoergsch@removethispacbell.net>
Message-ID: <f4fgd.14871$6q2.11877@newssvr14.news.prodigy.com>
Source record: 22439
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design,sci.electronics.misc,alt.ham-radio

Hi Alan,

>Is there a place in modern technique for regeneration (Q-multiplication)?
>
>
Last time I used it was, oh, about 30 years ago. It worked great and
spared me the expense of a crystal filter. Nowadays it is possible to
use some cheap mixer chip, filter with a crystal at a frequency where it
is low enough in cost and then mix back to where the signal needs to be.

Also, I believe the art of such fine analog schemes is to a large extent
lost. Younger engineers often wouldn't even know what you mean by that
question. Thinking back to my days back at the university, have we ever
been taught regen or Q-multiplication? Nope.

Regards, Joerg

http://www.analogconsultants.com

3356. Re: whither regenerative amplifiers?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-28 23:20:24 UTC
From: John Larkin <jjlarkin@highSNIPlandTHIStechPLEASEnology.com>
Message-ID: <riv2o0hg21fo8mm6lmuoe10b84ken5cbr6@4ax.com>
Source record: 22440
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design,sci.electronics.misc,alt.ham-radio

On 28 Oct 2004 15:34:27 -0700, alanh_27@yahoo.com (Alan Horowitz)
wrote:

>Is there a place in modern technique for regeneration (Q-multiplication)?

Rarely, if ever. Gain and selectivity are cheap nowadays, and
regeneration trades them for stability.

John

3357. Re: whither regenerative amplifiers?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-28 23:53:50 UTC
From: Joerg <notthisjoergsch@removethispacbell.net>
Message-ID: <iEfgd.36280$QJ3.15618@newssvr21.news.prodigy.com>
Source record: 22441
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design,sci.electronics.misc,alt.ham-radio

Hi John,

>>Is there a place in modern technique for regeneration (Q-multiplication)?
>>
>>
>
>Rarely, if ever. Gain and selectivity are cheap nowadays, and
>regeneration trades them for stability.
>
>
So after trying to mimick tube amps via algorithms the next big thing
would be the emulation of a Q multiplier on a DSP :-)

Regards, Joerg

http://www.analogconsultants.com

3358. Re: whither regenerative amplifiers?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-29 00:38:44 UTC
From: Guillaume Soro <nospam@nospam.com>
Message-ID: <2udho9F269uimU1@uni-berlin.de>
Source record: 22442
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design,sci.electronics.misc,alt.ham-radio

"Alan Horowitz" <alanh_27@yahoo.com> wrote in message
news:1e3670a7.0410281434.70887cc7@posting.google.com...
> Is there a place in modern technique for regeneration (Q-multiplication)?

Yes, there are some kits available to build, seen them somewhere on the net.
There is also quenched regen. which works better than just regeneration.
Regen has the best sensitivity, but poor selectivity
It was popular in the first radios 1910 to 1925, then the superhets came
in, with better stability, but cost more.

3359. Re: whither regenerative amplifiers?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-29 00:43:58 UTC
From: John Larkin <jjlarkin@highSNIPlandTHIStechPLEASEnology.com>
Message-ID: <lh43o0lcsiq41o4qdg983upd575uq562cv@4ax.com>
Source record: 22443
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design,sci.electronics.misc,alt.ham-radio

On Thu, 28 Oct 2004 23:53:50 GMT, Joerg
<notthisjoergsch@removethispacbell.net> wrote:

>Hi John,
>
>>>Is there a place in modern technique for regeneration (Q-multiplication)?
>>>
>>>
>>
>>Rarely, if ever. Gain and selectivity are cheap nowadays, and
>>regeneration trades them for stability.
>>
>>
>So after trying to mimick tube amps via algorithms the next big thing
>would be the emulation of a Q multiplier on a DSP :-)
>

IIR filter.

John

3360. Re: whither regenerative amplifiers?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-29 01:35:01 UTC
From: kensmith@green.rahul.net
Message-ID: <cls6o5urr2@blue.rahul.net>
Source record: 22445
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design,sci.electronics.misc,alt.ham-radio

In article <1e3670a7.0410281434.70887cc7@posting.google.com>,
Alan Horowitz <alanh_27@yahoo.com> wrote:
>Is there a place in modern technique for regeneration (Q-multiplication)?

Most RC+opamp filters include some sort of positive feedback.

--
--
kensmith@rahul.net forging knowledge

3361. CATV Hardline

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-29 03:55:36 UTC
From: W2RAC <rcook31@cfl.rr.com>
Message-ID: <dnf3o0tvjg3pu7q0tf78bbe5pqnkevotj3@4ax.com>
Source record: 22446

I am trying to see if I can use some surplus 1/2 inch hardline
"feeder" for my 2m ssb loops and 440 sat antenna.
So far I can use my ssb loops from 144 to 145.4 under 2 to 1 swr.
And again from 146.5 to 148 as well. Keeping the Resistance at about
50 Ohms. The antenna SWR is 1.7 to 1 without the hardline.

Anyone else using CATV hardline for above HF freq.

W2RAC
IRLP 4053
Echolink 40531

3362. Re: whither regenerative amplifiers?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-29 05:01:24 UTC
From: John Smith <kd5yikes@mindspring.com>
Message-ID: <E8kgd.10431$KJ6.993@newsread1.news.pas.earthlink.net>
Source record: 22447
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design

"Alan Horowitz" <alanh_27@yahoo.com> wrote in message
news:1e3670a7.0410281434.70887cc7@posting.google.com...
> Is there a place in modern technique for regeneration (Q-multiplication)?

I guess that depends on the application. I don't know how true it is, but I believe I saw that some of the 433 MHz ISM band receivers use either regenerative or superregenerative detectors. They are tiny and have sensitivities better than -106 dBm.

There has been new work on superregens (September/October 2000). An article was published in QEX, a ham radio journal. The first file at http://www.arrl.org/tis/info/vhfproj.html is that article but it requires membership to get it. However, on the same Web page, I see another that appears to be available without membership. It is An Ultra-Simple VHF Receiver for 6 Meters .

You can probably contact the ARRL and buy a reprint of the first article. It is well worth it. The author, Charles Kitchin, says the gain in a superregen detector is about a million. He discusses his discovery of shaping the quenching waveform so that selectivity is not lost. And he says it is possible to receive FM and NBFM as well as AM. It is a very enlightening article.

I plan to build a superregen to play with. After I get one going, I think I will try to make it work at 450 MHz. Like some other posters here, I built my previous regen 40 years ago.

Cheers,
John

3363. Re: whither regenerative amplifiers?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-29 07:38:42 UTC
From: Alan Peake <adpeake@killspam.internode.on.net>
Message-ID: <4181F382.8050806@killspam.internode.on.net>
Source record: 22348
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design

> I plan to build a superregen to play with. After I get one going, I think I
> will try to make it work at 450 MHz. Like some other posters here, I built
> my previous regen 40 years ago.
>
> Cheers,
> John

Hi John,
I built a few superregens about 40 years ago too!! They were on 288 MHz when Australian amateurs had the one metre band. Surprisingly good sensitivity for a one-valve receiver (6J6 usually) but of course they put out a fair bit of rubbish over a fair bit of the band. I often wonder if the quench frequency could be better controlled - perhaps an external injection oscillator or something like that. Anyway, best of luck with your 450 MHz.
Alan
VK2TWB

3364. Re: whither regenerative amplifiers?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-29 07:45:52 UTC
From: Brian Reay <brian.reay@bigfoot.com>
Message-ID: <2ueap9F29kqivU1@uni-berlin.de>
Source record: 22349
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design,sci.electronics.misc,alt.ham-radio

"Alan Horowitz" <alanh_27@yahoo.com> wrote in message
news:1e3670a7.0410281434.70887cc7@posting.google.com...
> Is there a place in modern technique for regeneration (Q-multiplication)?

Yes, if that is the optimal way to meet the requirement. However, I'd have
thought a DSP based solution would be more likely.

--
Brian Reay
www.g8osn.org.uk
www.amateurradiotraining.org.uk
FP#898

3365. Re: CATV Hardline

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-29 09:19:44 UTC
From: Active8 <reply2group@ndbbm.net>
Message-ID: <ab74p6de0be4.dlg@news.individual.net>
Source record: 22350

On Fri, 29 Oct 2004 03:55:36 GMT, W2RAC wrote:

> I am trying to see if I can use some surplus 1/2 inch hardline
> "feeder" for my 2m ssb loops and 440 sat antenna.
> So far I can use my ssb loops from 144 to 145.4 under 2 to 1 swr.
> And again from 146.5 to 148 as well. Keeping the Resistance at about
> 50 Ohms. The antenna SWR is 1.7 to 1 without the hardline.
>
> Anyone else using CATV hardline for above HF freq.
>

Sure. Chief tech in Lafayette, IN. has hardline all over his tower. He even uses CATV electronics. An LE or Bridger's return module works to say 50 MHz and the forward modules go beyond 1 GHz these days with roughly 25 dB gain and what? 55 dBmV or so output. The bitch is needing a coring tool for every size of P3, QR. MC^2, etc. and the damned pin connectors ain't cheap. IIRC, a line splitter or DC was $450 ($250?) 8 yrs ago. I figure a power inserter might be the same. I'd take used gear and rework or build the actual itty bitty passive circuit if needed. The power passing stuff is just peripheral to all that and won't need to be messed with, anyway.

The ARRL HDBK has a 75 to 50 ohm torroidal xfmr. Dipoles and such should match real well, leaving any other matching equip near the rig.

The modular design of CATV equip is outstanding for commo systems inside or out in the weather. It's just big gear because of the power passing capability.

--
Best Regards,
Mike

3366. Re: whither regenerative amplifiers?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-29 09:44:16 UTC
From: john jardine <john@jjdesigns.fsnet.co.uk>
Message-ID: <cls67s$f8b$1@news8.svr.pol.co.uk>
Source record: 22444
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design,sci.electronics.misc,alt.ham-radio

"Alan Horowitz" <alanh_27@yahoo.com> wrote in message
news:1e3670a7.0410281434.70887cc7@posting.google.com...
> Is there a place in modern technique for regeneration (Q-multiplication)?

Yes, course there is.
Needed a 300Hz bp filter for an I.F stage. too wide for a crystal, too
narrow for a tuned circuit. Ended up using a Twin-T with feedback to give Q
enhancement and flat response.
regards
john

3367. Re: whither regenerative amplifiers?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-29 12:56:40 UTC
From: NoSpam@daqarta.com
Message-ID: <41823a5e.3634243@news.itd.umich.edu>
Source record: 22351
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design,sci.electronics.misc,alt.ham-radio

On 28 Oct 2004 15:34:27 -0700, alanh_27@yahoo.com (Alan Horowitz)
wrote:

>Is there a place in modern technique for regeneration (Q-multiplication)?

Not exactly what you asked for, but you might be interested to know
that this is exactly what is going on in your inner ear... and it's
partly mechanical! The sensory cells in your cochlea sit on the
basilar membrane, which vibrates from the incoming sound.
The sound enters at one end of the cochlea, where the
basilar membrane is narrow, stiff, and has low mass. The
membrane becomes wider, more massive, and less stiff as
you go toward the apex of the cochlea. The incoming sound
generates a travelling wave on the membrane, with a peak
at a frequency-specific location.

But it wouldn't be very sharply tuned just from the mechanics.
As it turns out, there are 2 different kinds of sensory cells
on the basilar membrane: one row of Inner Hair Cells which
actually tranduce the sound into neural signals to the brain,
and 3 rows of Outer Hair Cells which are electromechanical
amplifiers. They change length according to the voltage
across them, and they also change the flow of current and
hence the voltage across themselves when this happens.
The net effect is that they form a regenerative amplifier
that provides a huge Q-multiplication for the mechanical
tuning of the basilar membrane, and it is this enhanced
vibration that excites the Inner Hair Cells to give enhanced
sensitivity to low sound levels. Without this effect we'd
lose about 60 dB of sensitivity at low sound levels.
(The effect saturates at higher levels.)

Just thought you'd like to know!

Bob Masta
dqatechATdaqartaDOTcom

D A Q A R T A
Data AcQuisition And Real-Time Analysis
www.daqarta.com

3368. Re: whither regenerative amplifiers?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-29 20:30:25 UTC
From: alanh_27@yahoo.com
Message-ID: <1e3670a7.0410291230.a1b0e18@posting.google.com>
Source record: 22352
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design,sci.electronics.misc,alt.ham-radio

John Larkin <jjlarkin@highSNIPlandTHIStechPLEASEnology.com>
> Rarely, if ever. Gain and selectivity are cheap nowadays, and
> regeneration trades them for stability.

Selectivity at the upper decades of Mhz is cheap nowadays? Where do I buy one of these flea-market tuneable multi-ganged, several-octave HF-VHF preselectors?

I wasn't thinking of regenerative detectors. I was thinking of a tuneable front-end preselector which would emulate the Q characteristics of a crystal-lattice bandpass filter.

don't we have nowadays, high-power, low-noise FETs which are almost as good as the vacuum tubes made in the late 60's, early 70's.

Stability? RF stability is like aircraft stability.... if your design and implementation are excellent, it would be hard to get into an unstable area of operation.

3369. Re: whither regenerative amplifiers?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-29 20:55:06 UTC
From: clifto <clifto@clifto.com>
Message-ID: <aana52-nkq.ln1@remote.clifto.com>
Source record: 22353
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design,sci.electronics.misc,alt.ham-radio

Bob Masta wrote:
> Just thought you'd like to know!

If only you could explain cochlear hydrops in a way that suggested a fix.

--
So those 380 tons of missing explosives were moved by Saddam before all
those expert inspectors noticed, eh?

No wonder twelve years of inspections found NOTHING.

3370. Re: whither regenerative amplifiers?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-29 21:06:01 UTC
From: Joerg <notthisjoergsch@removethispacbell.net>
Message-ID: <Zgygd.2248$zx1.1067@newssvr13.news.prodigy.com>
Source record: 22354
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design,sci.electronics.misc,alt.ham-radio

Hi Alan,

>Selectivity at the upper decades of Mhz is cheap nowadays? Where do I
>buy one of these flea-market tuneable multi-ganged, several-octave
>HF-VHF preselectors?
>
>
Only using conversion - filter - conversion back. Otherwise it's cavity
resonators and beaucoup Dollars.

>I wasn't thinking of regenerative detectors. I was thinking of a
>tuneable front-end preselector which would emulate the Q
>characteristics of a crystal-lattice bandpass filter.
>
>
Don't expect lattice characteristics. I used a Q multiplier at IF
frequencies quite a bit when I was young. You can "dial in" almost any
bandwidth you like but the 6-60dB shape factor was never even close to
what a four or six crystal filter could do. You get the characterics of
a single tuned LC circuit which has a selectable Q. No more, no less. Of
course, you could gang Q multipliers but that is going to be very
complicated when it comes to aligning them.

>don't we have nowadays, high-power, low-noise FETs which are almost as
>good as the vacuum tubes made in the late 60's, early 70's.
>
>
From a noise point of view they are better. But if you ever had to go
up a slippery roof after a thunderstorm to replace the amp board because
the FET had blown you start to appreciate tubes.

>Stability? RF stability is like aircraft stability.... if your
>design and implementation are excellent, it would be hard to get into
>an unstable area of operation.
>
>
The old Q multipliers were kind of fickle. But then again, so is a
Ferrari. Things could be automated but this technology enjoyed too short
of a life span for that to happen.

Regards, Joerg

http://www.analogconsultants.com

3371. Re: whither regenerative amplifiers?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-29 21:14:44 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <cluc19jbb1@newshost.mot.com>
Source record: 22355
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design,sci.electronics.misc,alt.ham-radio

"Ken Smith" <kensmith@green.rahul.net> wrote in message
news:cls6o5urr2@blue.rahul.net...
> In article <1e3670a7.0410281434.70887cc7@posting.google.com>,
> Alan Horowitz <alanh_27@yahoo.com> wrote:
> >Is there a place in modern technique for regeneration (Q-multiplication)?
>
> Most RC+opamp filters include some sort of positive feedback.

Umm. Er Don't you mean negative?

Steve, K9DCI.

3372. Re: whither regenerative amplifiers?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-29 22:08:31 UTC
From: John Larkin <jjlarkin@highSNIPlandTHIStechPLEASEnology.com>
Message-ID: <emf5o09lpn4am8vdhqbk0b2hptp4gfdcf5@4ax.com>
Source record: 22356
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design,sci.electronics.misc,alt.ham-radio

On Fri, 29 Oct 2004 21:06:01 GMT, Joerg
<notthisjoergsch@removethispacbell.net> wrote:

>Hi Alan,
>
>>Selectivity at the upper decades of Mhz is cheap nowadays? Where do I
>>buy one of these flea-market tuneable multi-ganged, several-octave
>>HF-VHF preselectors?
>>
>>
>Only using conversion - filter - conversion back. Otherwise it's cavity
>resonators and beaucoup Dollars.
>

Or SAWs, or ceramic resonators, or DSP stuff.

John

3373. Re: whither regenerative amplifiers?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-29 22:33:43 UTC
From: Joerg <notthisjoergsch@removethispacbell.net>
Message-ID: <bzzgd.2281$zx1.304@newssvr13.news.prodigy.com>
Source record: 22357
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design,sci.electronics.misc,alt.ham-radio

Hi John,

>>>Selectivity at the upper decades of Mhz is cheap nowadays? Where do I
>>>buy one of these flea-market tuneable multi-ganged, several-octave
>>>HF-VHF preselectors?
>>>
>>>
>>>
>>>
>>Only using conversion - filter - conversion back. Otherwise it's cavity
>>resonators and beaucoup Dollars.
>>
>>
>>
>
>Or SAWs, or ceramic resonators, or DSP stuff.
>
>
But the first wto ar not tunable. At least not without using sandpaper ;-)

Direct DSP would be prohibitively expensive at VHF. Probably you'd have
to assemble an array the size of a large pizza and call the power
company before turning it on.

Regards, Joerg

http://www.analogconsultants.com

3374. yahoo Swan Siltronix Group

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-29 22:58:32 UTC
From: Skipp is just passing the word <picklesandcheese@yahoo.com>
Message-ID: <cluhuocnm1@skeeter.ucdavis.edu>
Source record: 22358
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.cb,rec.radio.swap

Bill P. has started a Swan - Siltronix yahoo group:

TheSwan-Siltronix1011Bunch@yahoogroups.com

Everyone is welcome

cheers
skipp

spamtheotherguyplease@hisemail.now

3375. Re: whither regenerative amplifiers?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-30 00:12:53 UTC
From: Jim Gerrie <nospam@nospam.com>
Message-ID: <2ug4jeF29tm67U1@uni-berlin.de>
Source record: 22359
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design,sci.electronics.misc,alt.ham-radio

"Alan Horowitz" <alanh_27@yahoo.com> wrote in message
news:1e3670a7.0410291230.a1b0e18@posting.google.com...
> John Larkin <jjlarkin@highSNIPlandTHIStechPLEASEnology.com>
> > Rarely, if ever. Gain and selectivity are cheap nowadays, and
> > regeneration trades them for stability.
>
>
> Selectivity at the upper decades of Mhz is cheap nowadays? Where do I
> buy one of these flea-market tuneable multi-ganged, several-octave
> HF-VHF preselectors?

Ham fest, build your own, can get more than 10:1 over frequency.

>
> I wasn't thinking of regenerative detectors. I was thinking of a
> tuneable front-end preselector which would emulate the Q
> characteristics of a crystal-lattice bandpass filter.

Can get to a xal selectivity at all. You can do an elecrically tuneable
with Pin diodes and Fets. but it is at least 10 to 100 times wider.

>
> don't we have nowadays, high-power, low-noise FETs which are almost as
> good as the vacuum tubes made in the late 60's, early 70's.
>
> Stability? RF stability is like aircraft stability.... if your
> design and implementation are excellent, it would be hard to get into
> an unstable area of operation.

3376. Re: whither regenerative amplifiers?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-30 03:13:04 UTC
From: kensmith@green.rahul.net
Message-ID: <clv0s0$6o1$2@blue.rahul.net>
Source record: 22360
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design,sci.electronics.misc,alt.ham-radio

In article <bzzgd.2281$zx1.304@newssvr13.news.prodigy.com>,
Joerg <notthisjoergsch@removethispacbell.net> wrote:
[...]
>Direct DSP would be prohibitively expensive at VHF. Probably you'd have
>to assemble an array the size of a large pizza and call the power
>company before turning it on.

Thats the easy part. First, you have to run the signal through an ADC.
Doing an ADC that has very many bits is tricky at high frequencies. You
would end up with a combination ADC and spaceheater.

How about a large copper tube as a wave guide and a plunger driven by an
electric motor? You can get sharp peaks out of such things. The bad part
is you never get just one peak. Perhaps using two or more you can arrange
it so that only one peak lines up in both (all three).
--
--
kensmith@rahul.net forging knowledge

3377. Re: whither regenerative amplifiers?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-30 03:31:32 UTC
From: John Larkin <jjlarkin@highlandSNIPtechTHISnologyPLEASE.com>
Message-ID: <5l26o09s13ba356g95u0j3990dl1ut48ne@4ax.com>
Source record: 22361
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design,sci.electronics.misc,alt.ham-radio

On Sat, 30 Oct 2004 03:13:04 +0000 (UTC), kensmith@green.rahul.net
(Ken Smith) wrote:

>In article <bzzgd.2281$zx1.304@newssvr13.news.prodigy.com>,
>Joerg <notthisjoergsch@removethispacbell.net> wrote:
>[...]
>>Direct DSP would be prohibitively expensive at VHF. Probably you'd have
>>to assemble an array the size of a large pizza and call the power
>>company before turning it on.
>
>Thats the easy part. First, you have to run the signal through an ADC.
>Doing an ADC that has very many bits is tricky at high frequencies. You
>would end up with a combination ADC and spaceheater.
>

12 or 14 bit, 80 MSPS ADCs are cheap and plentiful nowadays, and
consume a few hundred milliwatts.

John

3378. Re: whither regenerative amplifiers?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-30 03:33:04 UTC
From: kensmith@green.rahul.net
Message-ID: <clv21g$6o1$3@blue.rahul.net>
Source record: 22362
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design,sci.electronics.misc,alt.ham-radio

In article <cluc19jbb1@newshost.mot.com>,
Steve Nosko <suteuve.nosukowicuz@moutouroula.com> wrote:
>
>"Ken Smith" <kensmith@green.rahul.net> wrote in message
>news:cls6o5urr2@blue.rahul.net...
>> In article <1e3670a7.0410281434.70887cc7@posting.google.com>,
>> Alan Horowitz <alanh_27@yahoo.com> wrote:
>> >Is there a place in modern technique for regeneration (Q-multiplication)?
>>
>> Most RC+opamp filters include some sort of positive feedback.
>
>
>
>Umm. Er Don't you mean negative?

No I mean positive. Lets take the simplest example:

```
--------------------------------
! !
--- !
--- C1 !
R1 ! R2 ! \ !
---/\/\/\------+------/\/\/\/----+---! K >----- +----
! ! / E1
!
---
--- C2
!
GND
```

Feed this circuit into spice with

R1 = R2 = 1 Ohm
C1 = C2 = 1 Farad

Try the circuit with K= 0.5 1 2 and 2.7 2.8 and 2.9

See what happens to the 0.03Hz to 0.3Hz band as you raise the gain and
hence the positive feedback.

--
--
kensmith@rahul.net forging knowledge

3379. Re: whither regenerative amplifiers?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-30 03:40:44 UTC
From: kensmith@green.rahul.net
Message-ID: <clv2fs$6o1$4@blue.rahul.net>
Source record: 22363
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design,sci.electronics.misc,alt.ham-radio

In article <5l26o09s13ba356g95u0j3990dl1ut48ne@4ax.com>,
John Larkin <jjlarkin@highlandSNIPtechTHISnologyPLEASE.com> wrote:
>On Sat, 30 Oct 2004 03:13:04 +0000 (UTC), kensmith@green.rahul.net
>(Ken Smith) wrote:
>
>>In article <bzzgd.2281$zx1.304@newssvr13.news.prodigy.com>,
>>Joerg <notthisjoergsch@removethispacbell.net> wrote:
>>[...]
>>>Direct DSP would be prohibitively expensive at VHF. Probably you'd have
>>>to assemble an array the size of a large pizza and call the power
>>>company before turning it on.
>>
>>Thats the easy part. First, you have to run the signal through an ADC.
>>Doing an ADC that has very many bits is tricky at high frequencies. You
>>would end up with a combination ADC and spaceheater.
>>
>
>12 or 14 bit, 80 MSPS ADCs are cheap and plentiful nowadays, and
>consume a few hundred milliwatts.

An engineer I know attempted a design like that and found that (A) 14 bits
isn't enough and (B) 50 MSPS (his case) isn't enough either. Unless you
put an analog filter infront of the ADC, a strong station dominates and
the performance just isn't there.

You need to oversample enough that the Nyqist of the sampling system is
well above the highest frequency you intend to receive. This way, a
simple fixed anti-alias filter can keep the UHF band out of the front end.

The ADC's nonlinearity tends to intermix the various signals. Unless
there are enough bits or you can assume something lucky about the "noise"
of the other stations, the intermix products end up in the pass band.

--
--
kensmith@rahul.net forging knowledge

3380. Re: whither regenerative amplifiers?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-30 03:51:45 UTC
From: John Larkin <jjlarkin@highlandSNIPtechTHISnologyPLEASE.com>
Message-ID: <dr36o0pq3bvcvo3qr47v6iq1gfdbgsaf1a@4ax.com>
Source record: 22364
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design,sci.electronics.misc,alt.ham-radio

On Sat, 30 Oct 2004 03:40:44 +0000 (UTC), kensmith@green.rahul.net
(Ken Smith) wrote:

>
>An engineer I know attempted a design like that and found that (A) 14 bits
>isn't enough and (B) 50 MSPS (his case) isn't enough either. Unless you
>put an analog filter infront of the ADC, a strong station dominates and
>the performance just isn't there.

Well, sure, but it's probably not going to be a regenerative amp
stage.

John

3381. Re: whither regenerative amplifiers?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-30 04:26:52 UTC
From: kensmith@green.rahul.net
Message-ID: <clv56cbav2@blue.rahul.net>
Source record: 22365
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design,sci.electronics.misc,alt.ham-radio

In article <dr36o0pq3bvcvo3qr47v6iq1gfdbgsaf1a@4ax.com>,
John Larkin <jjlarkin@highlandSNIPtechTHISnologyPLEASE.com> wrote:
>On Sat, 30 Oct 2004 03:40:44 +0000 (UTC), kensmith@green.rahul.net
>(Ken Smith) wrote:
>
>>
>>An engineer I know attempted a design like that and found that (A) 14 bits
>>isn't enough and (B) 50 MSPS (his case) isn't enough either. Unless you
>>put an analog filter infront of the ADC, a strong station dominates and
>>the performance just isn't there.
>
>
>Well, sure, but it's probably not going to be a regenerative amp
>stage.

No, he ended up doing an analog superhet. down to an IF he then digitized.
The circuit was working great on the day the project was cancelled. It
was great electronics attempting to implement something the physics said
wouldn't work. He knew the idea was daft but he needed the work and they
wouldn't listen to him.

--
--
kensmith@rahul.net forging knowledge

3382. Re: whither regenerative amplifiers?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-30 04:37:57 UTC
From: Joel Kolstad <JKolstad71HatesSpam@Yahoo.Com>
Message-ID: <-a-dnYHeA5zhhx7cRVn-hw@comcast.com>
Source record: 22366
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design,sci.electronics.misc,alt.ham-radio

"Ken Smith" <kensmith@green.rahul.net> wrote in message
news:clv56cbav2@blue.rahul.net...
> The circuit was working great on the day the project was cancelled. It
> was great electronics attempting to implement something the physics said
> wouldn't work.

Sounds much more likely he was attempting to implement something the boss
said wouldn't work. :-)

3383. Re: whither regenerative amplifiers?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-30 04:46:32 UTC
From: kensmith@green.rahul.net
Message-ID: <clv6b8bav4@blue.rahul.net>
Source record: 22367
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design,sci.electronics.misc,alt.ham-radio

In article <-a-dnYHeA5zhhx7cRVn-hw@comcast.com>,
Joel Kolstad <JKolstad71HatesSpam@Yahoo.Com> wrote:
>"Ken Smith" <kensmith@green.rahul.net> wrote in message
>news:clv56cbav2@blue.rahul.net...
>> The circuit was working great on the day the project was cancelled. It
>> was great electronics attempting to implement something the physics said
>> wouldn't work.
>
>Sounds much more likely he was attempting to implement something the boss
>said wouldn't work. :-)

No, the boss say it would. It was a classic E=MC^3 sort of project.

--
--
kensmith@rahul.net forging knowledge

3384. Re: whither regenerative amplifiers?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-30 06:20:11 UTC
From: bigcat@meeow.co.uk
Message-ID: <a7076635.0410292220.54a9774a@posting.google.com>
Source record: 22368
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design

"John Smith" <kd5yikes@mindspring.com> wrote in message
news:<E8kgd.10431$KJ6.993@newsread1.news.pas.earthlink.net>...
> "Alan Horowitz" <alanh_27@yahoo.com> wrote in message
> news:1e3670a7.0410281434.70887cc7@posting.google.com...

> > Is there a place in modern technique for regeneration (Q-multiplication)?

I think its possible it might become popular technology again. The
advantage of high gain per cost is attractive, and it has other
benefits. Stability is the prime issue: it can be controlled by low
frequency quenching, which can of course be adaptive. The question now
is whether a simple scheme can be devised that ensures consistent
stability and gain with small quench control circuit cost. If solid
stability is achieved, the rf emission problem is eliminated at the
same time. If its achieved at minimal cost, it may be a winner.

I know I've seen it used in some modern receiver chips, but damned if
I can remember the details.

NT

3385. Re: whither regenerative amplifiers?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-30 06:57:15 UTC
From: bigcat@meeow.co.uk
Message-ID: <a7076635.0410292257.1f5a3cba@posting.google.com>
Source record: 22369
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design,sci.electronics.misc,alt.ham-radio

"Guillaume Soro" <nospam@nospam.com> wrote in message
news:<2udho9F269uimU1@uni-berlin.de>...
> "Alan Horowitz" <alanh_27@yahoo.com> wrote in message
> news:1e3670a7.0410281434.70887cc7@posting.google.com...
> > Is there a place in modern technique for regeneration (Q-multiplication)?
>
> Yes, there are some kits available to build, seen them somewhere on the net.
> There is also quenched regen. which works better than just regeneration.
> Regen has the best sensitivity, but poor selectivity
> It was popular in the first radios 1910 to 1925, then the superhets came
> in, with better stability, but cost more.

Although superhets were conceived early on, they were absurdly
expensive. For most of the 30s the reaction set was still the prime
configuration, superhets stayed in the luxury bracket for some while.
Anyone that built a superhet in 1925 had to be rich.

NT

3386. Re: whither regenerative amplifiers?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-30 08:10:49 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <puh6o0lpvkiotq4pbsgtin4ptv4g17h732@4ax.com>
Source record: 22370
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design,sci.electronics.misc,alt.ham-radio

On Fri, 29 Oct 2004 22:33:43 GMT, Joerg
<notthisjoergsch@removethispacbell.net> wrote:

>Direct DSP would be prohibitively expensive at VHF. Probably you'd have
>to assemble an array the size of a large pizza and call the power
>company before turning it on.

Why ?

If we are talking about amateur band systems only, using suitable
high-Q front end band pass filtering (helical or cavity resonators),
you can limit the bandwidth to a few hundred kHz (e.g. the SSB or
satellite band). Then you only need a sampling frequency of the order
of 1 MHz and undersample (decimate) it and process it at that sampling
frequency.

Paul OH3LWR

3387. Electronic tuning (high voltage varactors)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-30 08:22:51 UTC
From: Joel Kolstad <JKolstad71HatesSpam@Yahoo.Com>
Message-ID: <0OadnVBqe7yd0h7cRVn-jA@comcast.com>
Source record: 22371

I'm looking for suggestions on how one might go about changing the effective capacitance of a resonant circuit (it's part of a filter) in order to change the center frequency. The tricky part is that there's ~30dBm (10Vpp) RF running around, so with standard varactor diodes the RF becomes 'the bias' and the tuning is destroyed. I'm told that there are 'high voltage' varactor diodes out there; does anyone have a recommended source?

This is at 500MHz and the nominal component values are ~3pF. If I could obtain a 2:1 tuning range, I'd be happy. I need perhaps 30 steps within that range (3-6pF), and (doing the calculations) each step changes the capacitance by little more than about 100fF to start with -- so I'm thinking that switching physical capacitors into and out of the circuit is out of the question here.

Thoughts?

Thanks in advance,
---Joel Kolstad

3388. Re: Electronic tuning (high voltage varactors)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-30 08:32:30 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10o6kd1aqv8f99d@corp.supernews.com>
Source record: 22372

You might consider putting varactors or switched capacitors across only part of the inductor, i.e., a tap. The voltage will be lower and the required capacitance higher.

You might also consider ways to change the inductance instead of the capacitance.

Q, temperature stability, repeatability, and perhaps other factors will play a big role in determining which way is best, or acceptable.

Roy Lewallen, W7EL

Joel Kolstad wrote:

> I'm looking for suggestions on how one might go about changing the effective
> capacitance of a resonant circuit (it's part of a filter) in order to change
> the center frequency. The tricky part is that there's ~30dBm (10Vpp) RF
> running around, so with standard varactor diodes the RF becomes 'the bias'
> and the tuning is destroyed. I'm told that there are 'high voltage'
> varactor diodes out there; does anyone have a recommended source?
>
> This is at 500MHz and the nominal component values are ~3pF. If I could
> obtain a 2:1 tuning range, I'd be happy. I need perhaps 30 steps within
> that range (3-6pF), and (doing the calculations) each step changes the
> capacitance by little more than about 100fF to start with -- so I'm thinking
> that switching physical capacitors into and out of the circuit is out of the
> question here.
>
> Thoughts?
>
> Thanks in advance,
> ---Joel Kolstad
>
>

3389. Re: Electronic tuning (high voltage varactors)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-30 09:38:23 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <d2m6o0pjujnv46h215iqeffejo0fdi4kt9@4ax.com>
Source record: 22373

On Sat, 30 Oct 2004 01:22:51 -0700, "Joel Kolstad"
<JKolstad71HatesSpam@Yahoo.Com> wrote:

>I'm looking for suggestions on how one might go about changing the effective
>capacitance of a resonant circuit (it's part of a filter) in order to change
>the center frequency. The tricky part is that there's ~30dBm (10Vpp) RF
>running around, so with standard varactor diodes the RF becomes 'the bias'
>and the tuning is destroyed.

Perhaps not tuning range, but if there are strong unwanted signal, you
are going to get a lot of unwanted mixing products (this is basically
a varactor multiplier :-).

Is there a specific reason for runnig the filter at 50 ohms (as it
would appear from your figures). Why not design your filter for, say,
1-10 ohms and the voltage range would be reduced.

>I'm told that there are 'high voltage'
>varactor diodes out there; does anyone have a recommended source?

You might investigate any ordinary small signal signal diodes (such as
1N4148or SMD equivalents) with sufficient breakdown voltages and look
for their reverse voltage vs. capacitance curve.

>This is at 500MHz and the nominal component values are ~3pF. If I could
>obtain a 2:1 tuning range, I'd be happy.

That would require a 4:1 capacitance range.

>I need perhaps 30 steps within
>that range (3-6pF), and (doing the calculations) each step changes the
>capacitance by little more than about 100fF to start with -- so I'm thinking
>that switching physical capacitors into and out of the circuit is out of the
>question here.

If you can switch in (using swithing diodes or reed relays) fixed
capacitances as base capacitances, this should not be a problem.

Put a small (perhaps 5 pF) fixed capacitor in series with a big
(perhaps even 5..50 pF) varactor and you can generate a moderate
tuning range. Using some back to back configuration with anodes at
ground potential and varactor varacitors at the tuning voltage, you
can also reduce the IMD products.

Paul OH3LWR

3390. Re: whither regenerative amplifiers?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-30 12:01:45 UTC
From: NoSpam@daqarta.com
Message-ID: <41838034.2088554@news.itd.umich.edu>
Source record: 22374

On Fri, 29 Oct 2004 15:55:06 -0500, clifto <clifto@clifto.com> wrote:

>Bob Masta wrote:
>> Just thought you'd like to know!
>
>If only you could explain cochlear hydrops in a way that suggested a fix.
>

I'll ask around about progress on this. When I worked in the hearing
research lab, some folks were trying to come up with an animal model
so that they could study various treatments. At the time, they didn't
have any animals that developed hydrops spontaneously, so they
had to go in surgically to plug things up and prevent normal fluid
flow. I'm not sure it they came to any insights with this approach,
but it seemed a long shot to me. That was maybe 15 years ago,
so they could have come a long way. I still attend weekly seminars
in my old department, so I'll ask around about this.

You probably already know this, but the conventional advice is
to cut salt intake. That basically means you prepare all your own
food from scratch, in light of the amount of salt that restaurants
and processed food contains. Tough job, but easy enough to
try out.

Bob Masta
dqatechATdaqartaDOTcom

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www.daqarta.com

3391. Re: Icom 706 MK-II won't power up

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-30 12:57:31 UTC
From: chafik.philo@eudoramail.com
Message-ID: <cacbc942.0410300457.3a34adbf@posting.google.com>
Source record: 22375

<Kaskghafmight@hotmail.com> wrote in message news:<cloam5$6p8$1@news7.svr.pol.co.uk>...
> Symptom: Radio won't power up.
> Probable Cause: Burned ground circuit trace in flex cable.
> Cure: Replace flex cable EP2 at main board.
>
> (http://www.icomamerica.com/support/

Sorry
my english is verybad
so I dont know what is a flex cable?

3392. Re: Icom 706 MK-II won't power up

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-30 13:02:51 UTC
From: chafik.philo@eudoramail.com
Message-ID: <cacbc942.0410300502.6dd12dc0@posting.google.com>
Source record: 22376

"xpyttl" <xpyttl_NOSPAM@earthling.net> wrote in message
news:<10nvkhqihlsilae@corp.supernews.com>...
> Don't forget to check your supply. The 706 needs about 11 volts and if you
> have the backlight turned on, it draws significant current in receive. In
> my wife's car, on a cold day, I get this symptom if the engine isn't
> running. If you measure less than 12 volts at the power plug, and/or if
> your supply lines are a little light, I'd be suspicious of that.
>
> ..
>
> "chafik CN8JV" <chafik.philo@eudoramail.com> wrote in message
> news:cacbc942.0410270455.32c393@posting.google.com...
> > My problem is that I have an Icom 706 MK-II, that won't power up.
> > When I push the power button I can hear a relay click in the radio,
> > and a thump in the speaker but that is it. I've checked the fuses
> > internal and external all are ok. Does anyone have any suggestions as
> > to a fix this problem.
> >
> > Thanks in advance and 73's
> > CN8JV Chafik

The power supply is OK
I think I have connected the 8V output from the TRX to the Ground from
the PC sound Card!!!
any idea please?
What compounenets should I replce?

3393. FS: Manual Copies, No Frills just good service & good prices!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-30 14:39:32 UTC
From: rlucch2098@aol.com
Message-ID: <20041030103932.13148.00003880@mb-m28.aol.com>
Source record: 22377

Hi All;
Need a copy of a manual that you cannot locate?
Please try here>>
http://www.myradioroom.com/manualsales.html
Thanks & 73..
Rich WA2RQY

3394. Please help: Shorting 8V ouput to Ground!!!!!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-30 16:26:17 UTC
From: chafik.philo@eudoramail.com
Message-ID: <cacbc942.0410300826.585e731b@posting.google.com>
Source record: 22378

Hello
My problrms with IC706 MKII are endless!!
I connected by accident the 8V ouput in the rear of TRX
to the Ground from the PC sound card!!!
Now the TRX is QRT.
Now Icom 706 MK-II won't power up.
When I push the power button I can hear a relay click in the radio,
and a thump in the speaker but that is it. I've checked the fuses
internal and external all are ok. For those who are familiar with
ic706MKII internal,
I made the followings measurements at the PLL unit
where the Internal 8V rehulator is located:
At the output of IC3..... 8.1 V
At the base of Q51 ..... 3.1 V
At the collector of Q51 ..... 2.32V
At the emetter of Q51 ..... 2.31V
At the collector of Q45 ..... 13.8V
At the emetter of Q45 ..... 0V !!

Because the Q45 is not SMD,I replaced itwith new one
But the problem stil exist.
Does anyone have any suggestions as
to fix this problem.

73
Chafik CN8JV

3395. Re: whither regenerative amplifiers?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-30 16:42:33 UTC
From: kensmith@green.rahul.net
Message-ID: <cm0g9p$8pd$6@blue.rahul.net>
Source record: 22379
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.basics,sci.electronics.design,sci.electronics.misc,alt.ham-radio

In article <puh6o0lpvkiotq4pbsgtin4ptv4g17h732@4ax.com>,
Paul Keinanen <keinanen@sci.fi> wrote:
[...]
>If we are talking about amateur band systems only, using suitable
>high-Q front end band pass filtering (helical or cavity resonators),
>you can limit the bandwidth to a few hundred kHz (e.g. the SSB or
>satellite band). Then you only need a sampling frequency of the order
>of 1 MHz and undersample (decimate) it and process it at that sampling
>frequency.

This method tends to increase noise unless something clever is done in the
area of the sample and hold. The device that does the sampling, must be
fast so there are a lot of sqrt(Hz) included. The sampling will alias the
high frequency noise from the device down.

You are better off to mix down to a lower frequency using something that
acts multiplying sinewaves so that there are no high frequency components
to cause the mixing of high frequency components. You can make sample and
hold circuits that act this way but you need more than one to make it work
right.

--
--
kensmith@rahul.net forging knowledge

3396. Re: Electronic tuning (high voltage varactors)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-30 16:59:15 UTC
From: Joel Kolstad <JKolstad71HatesSpam@Yahoo.Com>
Message-ID: <jbadnfzCCMmBVR7cRVn-1Q@comcast.com>
Source record: 22380

Hi Paul,

"Paul Keinanen" <keinanen@sci.fi> wrote in message
news:d2m6o0pjujnv46h215iqeffejo0fdi4kt9@4ax.com...
> Perhaps not tuning range, but if there are strong unwanted signal, you
> are going to get a lot of unwanted mixing products (this is basically
> a varactor multiplier :-).

Very true!

> Is there a specific reason for runnig the filter at 50 ohms (as it
> would appear from your figures). Why not design your filter for, say,
> 1-10 ohms and the voltage range would be reduced.

No, a lower impedance would be fine. Still, even at 1 ohm, 30dBm is 1.43Vpp so it's still far from 'small signal.' I do realize that going from 50 ohms -> 1 ohm would get me capacitors that were 50 times as large, but on the other hand the inductors would be 50 times as small!

> You might investigate any ordinary small signal signal diodes (such as
> 1N4148or SMD equivalents) with sufficient breakdown voltages and look
> for their reverse voltage vs. capacitance curve.

Thanks, will do.

>>This is at 500MHz and the nominal component values are ~3pF. If I could
>>obtain a 2:1 tuning range, I'd be happy.
>
> That would require a 4:1 capacitance range.

Sorry, that was poorly worded. A 2:1 capacitance range giving a 1.414:1 tuning range would be fine. (Large tuning ranges are even better. :-))

> If you can switch in (using swithing diodes or reed relays) fixed
> capacitances as base capacitances, this should not be a problem.

If you mean 'reasonable sized' (maybe 3.3pF on up) by 'base capacitors,' that's what I was planning on doing. Initially I was planning on using reed relays, but having looked at some Hittite switches, I'm now planning on using a HMC221.

For ~100fF, I was thinking the problem is that you can't reliably switch in something as small as 100fF in that it's pretty hard to build anything that small in a repeatable manner. I mean, you can't buy a 100fF capacitor as a chip cap -- you end up just using a pad of copper on the PCB above a ground plane, right? Is that feasible? Perhaps if I stuck 4 such 'capacitors' in series, each one would then be ~400fF. However, at that point I'd presumably have to use a field solver to figure out the true capacitance

since all those copper pads are going to be pretty close together to one another and have non-negligible coupling.

> Put a small (perhaps 5 pF) fixed capacitor in series with a big
> (perhaps even 5..50 pF) varactor and you can generate a moderate
> tuning range. Using some back to back configuration with anodes at
> ground potential and varactor varacitors at the tuning voltage, you
> can also reduce the IMD products.

I'm not quite following this (I don't know what a 'varactor varacitor is'?). Something like:

signal -- | | -- |<| -- gnd

Where | | is the 5pF capacitor and |<| is the varactor with anode facing 'left'? I'm not following how the 'back to back' configuration works.

Thanks a lot for the help; you've given me a great deal to think about!

---Joel

3397. Re: motorboating in cascaded AF amplifier chain, help!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-30 17:16:18 UTC
From: fmmck@aol.com
Message-ID: <20041030131618.11378.00002721@mb-m15.aol.com>
Source record: 22381

<< Side question: is there a way to design this problem out of circuits? >>

E.S.-

I can't say for sure about your circuit, but motorboating in general happens when peak current in the output stage develops an AC voltage across the power supply impedance, that is amplified by an earlier stage.

Yes, a separate regulator should fix the problem, but seems like over-kill. If you look at existing designs, they usually feed the output stage directly from the power source, and feed each earlier stage via a series resistor with a parallel capacitor across the previous stage.

Values of the resistors and capacitors depend on how much voltage drop the earlier stage can tolerate, and the lowest frequency of operation (or motorboating).

73, Fred, K4DII

3398. Re: Manual Copies, No Frills just good service & good prices!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-30 17:35:44 UTC
From: John Smith <kd5yikes@mindspring.com>
Message-ID: <QhQgd.7004$kM.3598@newsread3.news.pas.earthlink.net>
Source record: 22382

"Rich WA2RQY" <rlucch2098@aol.com> wrote in message
news:20041030103932.13148.00003880@mb-m28.aol.com...
> Hi All;
> Need a copy of a manual that you cannot locate?
> Please try here>>
> http://www.myradioroom.com/manualsales.html
> Thanks & 73..
> Rich WA2RQY

I really don't like to have to turn my sound off so I don't have to listen
your music at your Web site.

John

3399. Re: Icom 706 MK-II won't power up

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-30 20:32:21 UTC
From: Rex <me@hutmail.invalid>
Message-ID: <19u7o01i6v3gi5svjcp3r93rlke04hc1dg@4ax.com>
Source record: 22383

On 30 Oct 2004 05:57:31 -0700, chafik.philo@eudoramail.com (chafik
CN8JV) wrote:

><Kaskghafmight@hotmail.com> wrote in message news:<cloam5$6p8$1@news7.svr.pol.co.uk>...
>> Symptom: Radio won't power up.
>> Probable Cause: Burned ground circuit trace in flex cable.
>> Cure: Replace flex cable EP2 at main board.
>>
>> (http://www.icomamerica.com/support/
>
>Sorry
>my english is verybad
>so I dont know what is a flex cable?

I don't know anything about this radio, but flex is short for flexible
(bendable, can be bent). Typically these cables are thin plastic sheets
with printed circuit traces on them rather than wires.

If the cable has a burnt trace, you may be able to see it with your
eyes.

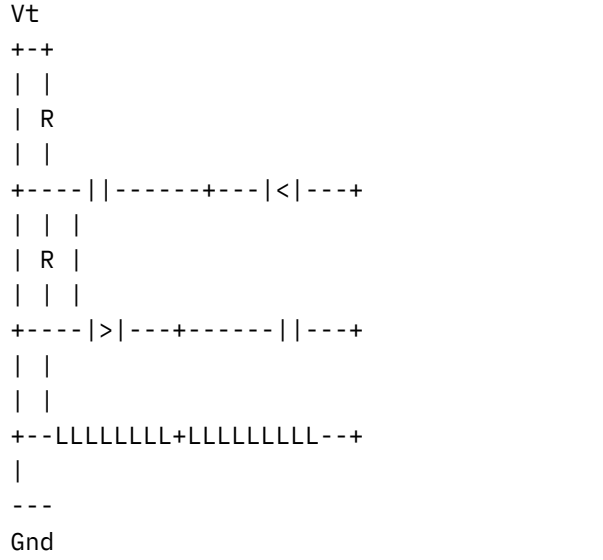
3400. Re: Electronic tuning (high voltage varactors)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-30 21:15:17 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <cdv7o0hp25qr2fku2rf0p6l0tvl15avlo3@4ax.com>
Source record: 22384

On Sat, 30 Oct 2004 09:59:15 -0700, "Joel Kolstad"
<JKolstad71HatesSpam@Yahoo.Com> wrote:

>
>I'm not quite following this (I don't know what a 'varactor varacitor is'?).
>Something like:
>
>signal -- | | -- |<| -- gnd
>
>Where | | is the 5pF capacitor and |<| is the varactor with anode facing
>'left'? I'm not following how the 'back to back' configuration works.

Something like this (fixed font):



The cent er of the inductance L is grounded to get ground reference
for the tuning voltage Vt. With a small series capacitance and a large
varactor capacitance, most of the RF voltage is over the fixed
capacitor. The anti-parallel structure should reduce the distortion.
You need to bring the tuning voltages Vt to the varactors through
separate resistors R (or through inductor resistor combinations).

Paul OH3LWR

3401. Re: Please help: Shorting 8V ouput to Ground!!!!!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-30 21:40:27 UTC
From: Kaskghafmight@hotmail.com
Message-ID: <cm11oblfc1@newsg1.svr.pol.co.uk>
Source record: 22385

My problems with IC706 MKII are endless!!

Its been harvest time in Morocco just now, surly you will be waiting for the cold wx for beating glands from the plants. Oh I wish I was in Morocco, sat out side a smoky cafe drinking apple tea, out side the casaba, sat with a big full bowled hookah pipe. Oh I wish.
(But then again my wireless is working)

Maybe there is a hidden fuse in the circuit, one that looks like a diode or something.

3402. 915 MHz receiver?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-30 22:18:45 UTC
From: pdrunen@aol.com
Message-ID: <20041030181845.04552.00004092@mb-m27.aol.com>
Source record: 22386

Maybe someone can answer this question, I understand that the reciever for the DirectTV box is around 1GHz, the 12GHz from the disk is down converted to this range so that the loss in the cable can be less.

I have seen a few of the receivers around the yard sales for 5 bucks or less. Complete systems for about 15 bucks.

I was considering getting one and see what I could do to make it usable at around 915MHz. I also understand that voltage is on the cable and this could be used to power a rf amp at the antenna end.

This reciever most likely has a wide bandwidth, which is good for some ATV work.

Has anyone here opened the receiver box up to see what under the hood?

Maybe a tech site with data on the reciever?

Thanks!

Paul

3403. Re: Please help: Shorting 8V ouput to Ground!!!!!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-30 23:05:38 UTC
From: w9gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <67Vgd.37094$R05.8268@attbi_s53>
Source record: 22387

"chafik CN8JV" <chafik.philo@eudoramail.com> wrote in message
news:cacbc942.0410300826.585e731b@posting.google.com...
> Hello
> My problrms with IC706 MKII are endless!!
> I connected by accident the 8V ouput in the rear of TRX
> to the Ground from the PC sound card!!!
> Now the TRX is QRT.
> Now Icom 706 MK-II won't power up.
> When I push the power button I can hear a relay click in the radio,
> and a thump in the speaker but that is it. I've checked the fuses
> internal and external all are ok. For those who are familiar with
> ic706MKII internal,
> I made the followings measurements at the PLL unit
> where the Internal 8V rehulator is located:
> At the output of IC3..... 8.1 V
> At the base of Q51 ..... 3.1 V
> At the collector of Q51 ..... 2.32V
> At the emetter of Q51 ..... 2.31V
> At the collector of Q45 ..... 13.8V
> At the emetter of Q45 ..... 0V !!
>
> Because the Q45 is not SMD,I replaced itwith new one
> But the problem stil exist.
> Does anyone have any suggestions as
> to fix this problem.
>

Chafik -

Yes, you damage the 8 VDC voltage supply - it can take only 10 mA and a dead short does destroy a number of internal components within the radio (you will need the schematic) and test components from that shorted output.

Icom Worldwide web site has the manual for this radio
http://www.icom.co.jp/world/support/index.htm

It may have to go to Icom service center for repair:

Spain Icom Spain S.L. 93-590-26-70 93-589-04-46 icom@icomspain.com

Egypt Egyptec Computers & Communication 02-2879585,
2759769 02-2872660 egyptec@egyptec.com

w9gb

3404. Re: Electronic tuning (high voltage varactors)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-31 00:08:20 UTC
From: Joel Kolstad <JKolstad71HatesSpam@Yahoo.Com>
Message-ID: <uomdnRFNA5JPsRncRVn-iw@comcast.com>
Source record: 22388

Thanks Paul, much appreciated!

3405. DDS VFO plans

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-31 14:56:19 UTC
From: streamliner@aol.com
Message-ID: <4184fa7c.91406335@usenet.magma.ca>
Source record: 22389

Just acquired a Small Wonder Labs "White Mountain 75" QRP SSB tranceiver. It works quite well as designed but would like to add a DDS VFO with LCD frequency readout and re-package it all mainly for PSK use. Looking for plans with PCB patterns and any hex code for a suitable DDS VFO, or alternatively a VCO stabilizer with freq readout. Googling turned up a few articles but not a package that I can build myself from scratch not a kit job. Any pointers greatly appreciated.

VE3ELQ Nigel In Embrun Ontario

3406. Re: DDS VFO plans

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-31 15:46:30 UTC
From: xpyttl <xpyttl_NOSPAM@earthling.net>
Message-ID: <10oa26pggc4j6e9@corp.supernews.com>
Source record: 22390

"VE3ELQ" <streamliner@aol.com> wrote in message
news:4184fa7c.91406335@usenet.magma.ca...

> would like to add a DDS VFO with LCD frequency readout

Nigel

FAR Circuits has the PC board for the circuit described by WB2V in QEX. This is pretty simple and works well, although the board quality from FAR Circuits leaves something to be desired. I think you can also get a reprint of the article from them. (http://www.farcircuits.net/vfo2.htm#2vfo).

Another approach is to build something up from the DDS Daughtercard from AmQRP. This little board deals with all the hard stuff, but you would need to sort out driving it yourself. (http://www.njqrp.org/dds/index.html). AmQRP's PIC-EL provides an LCD display and drive for the board and is well documented on their site. (http://www.amqrp.org/elmer160/board/index.html) However, the PIC-EL itself is no longer available (and more that what you need, anyway). But the schematics and code on the site could provide you with what you need to roll your own.

The DDS Daughtercard is a nice approach because it mostly handles the hard part. Most of the DDS chips are only in TSSOP or smaller. Making a PCB that fine is a little tough for most hobbyists. The Daughtercard has the DDS chip, the oscillator to drive it, a regulator, and a little amplifier to get the output up a tad. It plugs into a normal 0.1" header. The thing is really tiny so you have a lot of packaging options.

..

3407. Re: DDS VFO plans

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-10-31 15:49:20 UTC
From: Gary Cavie <m0jjh@despammed.com>
Message-ID: <MPG.1bef19de6032cbc6989693@news.individual.net>
Source record: 22391

In article <4184fa7c.91406335@usenet.magma.ca>, streamliner@aol.com
says...
> Just acquired a Small Wonder Labs "White Mountain 75" QRP SSB
> tranceiver. It works quite well as designed but would like to add a
> DDS VFO with LCD frequency readout and re-package it all mainly for
> PSK use. Looking for plans with PCB patterns and any hex code for a
> suitable DDS VFO, or alternatively a VCO stabilizer with freq readout.
> Googling turned up a few articles but not a package that I can build
> myself from scratch not a kit job. Any pointers greatly appreciated.
>
> VE3ELQ Nigel In Embrun Ontario
>

Does it have to be an LCD display? G3XJP has produced a very good design,
which can be found at Analog's website with the following URL:
http://tinyurl.com/65ggv

Foil patterns etc are available for this design at
http://tinyurl.com/3k568

It is a very satisfying build - hex code for the PIC is available either
from Peter Rhodes G3XJP, or if you join the Pic-a-star Yahoo group, from
there.

Best of luck

Gary M0JJH

3408. Stripping thin flat Ribbon cable (like Kapton)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-01 03:54:55 UTC
From: **THE-RFI-EMI-GUY** <rhyolite@nettally.com>
Message-ID: <cm4c1qaro2@news.utelfla.com>
Source record: 22392

I just had the "pleasant experience" of having a ribbon conductor break in some 1997 vintage ham equipment. It is a ~16 conductor ribbon cable ~1/2" wide which looks a lot like Kapton only it has white insulation, possibly epoxy. On one end the conductors are factory stripped and plug directly into a latching receptacle. The other end, where the breakage occurred was factory stripped and soldered to the surface of the circuit board. After much angst, heat and scraping I was able to strip the end of the conductor and resolder to the circuit board. I have to say, my job doesn't look too bad, but I had to start over once. It burns easily in a flame, but is hard to melt with soldering iron.

Can someone advise how this stuff is stripped in the factory without nicking the conductors? Can it be bought in factory made lengths as opposed to bulk?

--
Joe Leikhim K4SAT
"The RFI-EMI-GUY"

The Lost Deep Thoughts By: Jack Handey
Before a mad scientist goes mad, there's probably a time when he's only partially mad. And this is the time when he's going to throw his best parties.

3409. Re: Stripping thin flat Ribbon cable (like Kapton)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-01 06:18:19 UTC
From: Joel Kolstad <JKolstad71HatesSpam@Yahoo.Com>
Message-ID: <mpadnZ_vXsltSRjcRVn-uw@comcast.com>
Source record: 22393

> Can someone advise how this stuff is stripped in the factory without
> nicking the conductors?

It's a small machine that usually has a long V-shaped blade that comes down to slice into the insulation from both sides while the rest of the cable is held firmly by blocks. The cut is made, e.g., 1/4" back from the end of the cable, and merely pulling on the remaining cable is enough to free the long end.

At least that's the way the one I've used worked; it was semi-automatic (you had to manually position and pull the cable -- the slicing action was done from pneumatically powered pistons). There were numerous set screw adjustments to get the spacing of everything just right, but once it was set up, it tended to stay in alginment for a long time. I'm sure the thing costs thousands of dollars.

> Can it be bought in factory made lengths as opposed to bulk?

Yes, even DigiKey will sell you small quantities of pre-stripped cable at very reasonable prices (well, spendy compared to having your own machine around, but cheap compared to having to do it by hand).

---Joel Kolstad

3410. Re: Icom 706 MK-II won't power up

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-01 14:45:25 UTC
From: chafik.philo@eudoramail.com
Message-ID: <cacbc942.0411010645.4e21eea7@posting.google.com>
Source record: 22394

chafik.philo@eudoramail.com (chafik CN8JV) wrote in message
news:<cacbc942.0410300502.6dd12dc0@posting.google.com>...
> "xpyttl" <xpyttl_NOSPAM@earthling.net> wrote in message
news:<10nvkhqihlsilae@corp.supernews.com>...
> > Don't forget to check your supply. The 706 needs about 11 volts and if you
> > have the backlight turned on, it draws significant current in receive. In
> > my wife's car, on a cold day, I get this symptom if the engine isn't
> > running. If you measure less than 12 volts at the power plug, and/or if
> > your supply lines are a little light, I'd be suspicious of that.
> >
> > ..
> >
> > "chafik CN8JV" <chafik.philo@eudoramail.com> wrote in message
> > news:cacbc942.0410270455.32c393@posting.google.com...
> > > My problem is that I have an Icom 706 MK-II, that won't power up.
> > > When I push the power button I can hear a relay click in the radio,
> > > and a thump in the speaker but that is it. I've checked the fuses
> > > internal and external all are ok. Does anyone have any suggestions as
> > > to a fix this problem.
> > >
> > > Thanks in advance and 73's
> > > CN8JV Chafik
>
>
> The power supply is OK
> I think I have connected the 8V output from the TRX to the Ground from
> the PC sound Card!!!
> any idea please?
> What compounenets should I replce?

I have fixed the problem!!
The Q45 was burned out.
But when I was trying to put a new one,
I was putting it the wrong way!!!
So to All the owners of IC-706MKII:
If you short the pin1 to ground,
replace the big transistor Q45 located
at the PLL unit. and the TRX will power up!!
Thanks to everyone who did his best to help me
CN8JV
Chafik

3411. Tek 2754_continues....

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-01 16:23:54 UTC
From: rfgelitronics <no_spam@nowhere.com>
Message-ID: <uqthd.3332$zx1.549@newssvr13.news.prodigy.com>
Source record: 22395

Hello everybody:

thank you for all your suggestions, I have already repaired/adjusted the power supply, some switches and the optical encoder.

It seem the 100 KHz resolution filter does not work properly (83 KHz of error in bandwidth according to the internal calibration routine) and the 1st LO sometimes fails to lock at low frequencies...50KHz-200KHz.

Does anybody have any suggestions? I have all the manuals and trying to solve it.
Any place where I could get working modules or board extenders???

Thank you

3412. Re: DDS VFO plans

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-01 17:54:46 UTC
From: Craig Johnson <cbjohns@cbjohns.com>
Message-ID: <cm5t9c$133m$1@si05.rsvl.unisys.com>
Source record: 22396

Nigel,
> ... would like to add a
> DDS VFO with LCD frequency readout and re-package it all mainly for
> PSK use. Looking for plans with PCB patterns and any hex code for a
> suitable DDS VFO...

I have a follow-on for the Siggen project (i.e., Far Circuits board running my Siggen3a code)
or my PICELgen code running the PIC-EL. It is going to be released by AmQRP very soon.

My new DDS VFO (called IQ-VFO) has some significant advantages over the previous
DDS VFO. This one uses a more advanced DDS (the Analog Devices AD9854) which produces
two outputs (In-phase and Quadrature) on any frequency from 0 to 30 MHz. The two signals
provide endless modulation/demodulation possibilities.

Full kits will be available as well as the bare boards, etc. My source code for the two PIC
microcontrollers that control the IQ-VFO is also available so modifications are encouraged/expected.

You can see detals about the IQ-VFO on my web page: www.cbjohns.com/aa0zz

Also, a few days ago I opened up a YAHOO group (called DDS-VFO) to discuss DDS VFOs and
this IQ-VFO in particular. Please join us there.

73,
-Craig, AA&#65533;ZZ

3413. Re: yahoo Swan Siltronix Group

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-01 19:23:04 UTC
From: keyklonzrnutjobs@yahoo.com
Message-ID: <586e7bbf.0411011123.7b343b9b@posting.google.com>
Source record: 22397
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.cb,rec.radio.swap

Skipp is just passing the word <picklesandcheese@yahoo.com> wrote in message news:<cluhuocnm1@skeeter.ucdavis.edu>...
> Bill P. has started a Swan - Siltronix yahoo group:
>
> TheSwan-Siltronix1011Bunch@yahoogroups.com
>
> Everyone is welcome
>
> cheers
> skipp
>
> spamtheotherguyplease@hisemail.now

This would be the internet equivalent to a bunch of nutcases standing around a stinking outhouse and sniffing below the seat to discuss the odor with each other. Especially considering what a piece of garbage a Siltronix 1011 is.

3414. Re: yahoo Swan Siltronix Group

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-01 21:19:44 UTC
From: Ron <wa0kds@yahoo.com>
Message-ID: <4186A8B2.8070608@yahoo.com>
Source record: 22298
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.cb,rec.radio.swap

Swan sold a lot of equipment and a lot of people were very satisified
with it. Yes they might drift a little but all the radios of that time
did. Swan was one of the first to make a transceiver if not the first.
Swan was a key player in our history so go knock Collins that should
have been right up at the top that also had numerous problems. Swan gave
the rest of us something to operate if the person wasn't a homebrew type
so rich.

Psychiatrist to keyclowns wrote:

> Skipp is just passing the word <picklesandcheese@yahoo.com> wrote in message
news:<cluhuocnm1@skeeter.ucdavis.edu>...
>
>>Bill P. has started a Swan - Siltronix yahoo group:
>>
>>TheSwan-Siltronix1011Bunch@yahoogroups.com
>>
>>Everyone is welcome
>>
>>cheers
>>skipp
>>
>>spamtheotherguyplease@hisemail.now
>
>
> This would be the internet equivalent to a bunch of nutcases standing
> around a stinking outhouse and sniffing below the seat to discuss the
> odor with each other. Especially considering what a piece of garbage a
> Siltronix 1011 is.

3415. Re: Electronic tuning (high voltage varactors)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-01 23:24:10 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <cm6goapmd1@newshost.mot.com>
Source record: 22299

"Paul Keinanen" <keinanen@sci.fi> wrote in message
news:cdv7o0hp25qr2fku2rf0p6l0tvl15avlo3@4ax.com...
> On Sat, 30 Oct 2004 09:59:15 -0700, "Joel Kolstad"
> <JKolstad71HatesSpam@Yahoo.Com> wrote:
>
> >
> >I'm not quite following this (I don't know what a 'varactor varacitor
is'?).
> >Something like:
> >
> >signal -- | | -- |<| -- gnd
> >
> >Where | | is the 5pF capacitor and |<| is the varactor with anode facing
> >'left'? I'm not following how the 'back to back' configuration works.
>
> Something like this (fixed font):
>
> Vt
> +-+
> | |
> | R
> | |
> +----||------+---|<|---+
> | | |
> | R |
> | | |
> +----|>|---+------||---+
> | |
> | |
> +--LLLLLLLL+LLLLLLLLL--+
> |
> ---
> Gnd
>
> The cent er of the inductance L is grounded to get ground reference
> for the tuning voltage Vt. With a small series capacitance and a large
> varactor capacitance, most of the RF voltage is over the fixed
> capacitor. The anti-parallel structure should reduce the distortion.
> You need to bring the tuning voltages Vt to the varactors through
> separate resistors R (or through inductor resistor combinations).
>
> Paul OH3LWR
>

Paul,
The "back to back" configuration I am familiar with is like this:

> + Control voltage
> |
> R
> |
> +----|>|-----+---|<|---+
> | |
> | |
> +--LLLLLLLL+LLLLLLLL--+

There could also be a series cap in this configuration--except a resistor or choke would be required on one of the varactors. (no different than the one to the control line)
I don't know the advantages of either config. as the RF cycle effects each diode the same way "on opposite half cycles" in either.

I also don't get this talk about the filter Z. Since you'd need to Z match in/out of the filter, it seems to me the varactor voltages will be the same for any Zin/out since this will be determined by how "tightly" they are coupled into the resonant circuit and not the Zin/Zout, no? The Z match will just change the Vin/out.

Steve K9DCI

3416. Packet Mail.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-02 00:29:52 UTC
From: Alex Henriksen / OZ2AFY <alexie@zbox.dk.SpamSecure>
Message-ID: <43ldo0phkte5nvfgsddrg04nm6l7nt4nct@4ax.com>
Source record: 22301

Hejsa All..

Er der som ved om man kan fï¿½ et program som kan hente mail's automatis
fra en mail box.
Og derefter kan man svare pï¿½ dem og sende dem tilbage til mail box.

Det skal bruges til ISS mail boxen, der kommer sï¿½ mange mail's at jeg
ikke kan nï¿½ at svare pï¿½ dem, sï¿½ er den vï¿½k igen.!

Regard Alex Henriksen / OZ2AFY
==========
OZ2AFY Home Page - <http://oz2afy.zbox.dk>
QRV Info Here - <http://www.qrz.com/callsign/OZ2AFY>
Qsl via eQsl.cc - <http://www.eqsl.cc>
VistaPrint Card - <http://www.vistaprint.se/frfse?frf=543367526747>
Danlotto - <http://www.danlotto.com/?id=14582>

--- I use Linux because I love Linux, not because I hate Microsoft

3417. Re: DDS VFO plans

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-02 01:22:35 UTC
From: Ken Scharf <wa2mzeNOTTHIS@bellsouth.net>
Message-ID: <fkAhd.9141$Om6.4988@bignews5.bellsouth.net>
Source record: 22300

VE3ELQ wrote:
> Just acquired a Small Wonder Labs "White Mountain 75" QRP SSB
> tranceiver. It works quite well as designed but would like to add a
> DDS VFO with LCD frequency readout and re-package it all mainly for
> PSK use. Looking for plans with PCB patterns and any hex code for a
> suitable DDS VFO, or alternatively a VCO stabilizer with freq readout.
> Googling turned up a few articles but not a package that I can build
> myself from scratch not a kit job. Any pointers greatly appreciated.
>
> VE3ELQ Nigel In Embrun Ontario
Most of the designs out there use PIC micro's. Nothing wrong with that,
the pics are very good micros. HOWEVER, I think you guys should
consider the AVR MEGA chips. A real jtag ice is available for $300 from
Atmel, or you can build your own jtag interface or buy a clone for under
$50. (Google for 'bootice'. Uses only two IC's some connectors,
some connectors, a few resistors and a Led or two.)
A "C" compilier, assembler, and debugger is available for a free
download, and all the tools will work under Windows or Linux! The
Avr Mega series are available in 40 pin dip or 44 pin surface mount
packages with 16k or 32k of flash program memory (10k to 100k program
cycles), 1-2k of static ram, and 512-1024k eeprom (100k to 1000k program
cycles). They make denser versions in 64pin surface mount packages that
have more io pins, and external memory bus (sram only) as well as 'tiny'
chips in 28 pin skinny dip (no jtag interface on these though).

The rich development tools (easier than a software simulator and C
programming instead of assembler) make the AVR worth considering.
I don't work for Atmel, but I am using the Avr Mega chips at work,
and they ARE easy to use. The cost may be a little higher than
the pics, but only slightly so. Check out www.avrfreaks.org

My 50 cents worth.

3418. Re: Tek 2754_continues....

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-02 01:42:08 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <MPG.1bf085cc83d82dfc989745@news-central.giganews.com>
Source record: 22302

In article <uqthd.3332$zx1.549@newssvr13.news.prodigy.com>,
no_spam@nowhere.com says...
> Hello everybody:
>
> thank you for all your suggestions, I have already repaired/adjusted the
> power supply, some switches and the optical encoder.
>
> It seem the 100 KHz resolution filter does not work properly (83 KHz of
> error in bandwidth according to the internal calibration routine)

83 kHz of what? The self-calibration routine displays the *center*
frequency error of the filter, not its bandwidth. 83 kHz off-frequency
is not ideal but probably still OK.

What is the dB value (+/-) that the self-cal screen displays for this
filter? Does the routine complete without displaying any error
messages?

> and the
> 1st LO sometimes fails to lock at low frequencies...50KHz-200KHz.

You might try the LO calibration procedure as described in service
volume 1. It doesn't take very long.

>
> Does anybody have any suggestions? I have all the manuals and trying to
> solve it.
> Any place where I could get working modules or board extenders???

Modules/parts: Deane Kidd (dektyr (at) teleport.com), or Tom Neumann
(info (at) tektrotom.de).

Extenders: Matt North at Norway Labs sells these (example at
http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3847034014). You can
contact him directly at matt.north (at) verizon.net.

-- john

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

3419. Tek 491 Spectrum Analyzer problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-02 03:31:31 UTC
From: markaren10@yahoo.com
Message-ID: <a430c59.0411011931.39a06008@posting.google.com>
Source record: 22303

Hi,

Wonder if anyone can help.

Q1.

Fresh off of eBay, this SA is having terrible problems with input RF leaking straight through to the IF on the lowest RF range. I assume that the input mixer is shot (441-0671-03).

If I remove the LO feed to this mixer, the expected signal goes away, but the crud remains. I assume that the IF on the lowest RF range is close to one of the broadcast bands (TV or FM).

The mixer assy has two diodes which look like they should be easy to replace. Does anyone have a schematic for this assy or maybe just tell me what these devices are and some idea where I might get replacements.

Q2.

I feed in 144 Mhz and crank the SA centre frequency lower (130MHz) and the trace shifts left (I rather expected it to shift right). I assume that this could be connected with the busted mixer ?

Q3.

This one is defiantly operator error. The mid range 'B' has two scales 270 - 900 and 800 - 2000MHz. How do I switch between these two ranges (!)

Thanks in advance.

Mark.

3420. Re: Any microwavers used one of these?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-02 07:13:11 UTC
From: markaren10@yahoo.com
Message-ID: <a430c59.0411012313.52b2daa7@posting.google.com>
Source record: 22304

Any chance you could post a link to some photos ?

- Mark

Dave Bullock <DaveB@ihr.mrc.ac.uk> wrote in message
news:<clipsr$hl4$1@oyez.ccc.nottingham.ac.uk>...
> Hi Guys,
>
> I am looking to identify the PSU requirements and specification for a
> set of Sanders Microwave oscillators. type:-
>
> CLC 2-4 (2-4GHz)
> CLC 4-7 (4-7GHz)
> CLC 7-12 (7-12GHz)
>
> They each come in a red velvet lined case and consist of a heavy grey
> painted body (cavity)? with large aluminium calibration scale on the front.
> Each has an OCTAL valve base type connector on the rear that looks as
> though it is a power-in socket. But are these straight supplies or is
> the PSU cleverer?
> There is a removable threaded cover at one end and this reveals the base
> of a B7G valve, (disc seal triode?) which must be at the bottom of the
> cavity as there is a large micrometer drive at the opposite end.
> I don't want to dismantle any further for fear of upsetting any calibration.
> Has anyone any technical data on these beautiful instruments please?
>
> Thanks...Dave

3421. Re: Electronic tuning (high voltage varactors)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-02 08:16:01 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <gudeo0le0jeu01qh23s961b14k2crvh2c5@4ax.com>
Source record: 22305

On Mon, 1 Nov 2004 17:24:10 -0600, "Steve Nosko"
<suteuve.nosukowicuz@moutouroula.com> wrote:

> The "back to back" configuration I am familiar with is like this:
>
>> + Control voltage
>> |
>> R
>> |
>> +----|>|-----+---|<|---+
>> | |
>> | |
>> +--LLLLLLLL+LLLLLLLLL--+
>
>There could also be a series cap in this configuration--except a resistor or
>choke would be required on one of the varactors. (no different than the one
>to the control line)

You would need fixed capacitors on _both_ anodes and also resistors to
ground from both anodes to get the DC bias. The small series
capacitors are essential, since they take the most part of the RF
voltage. Of course, the series resistor will reduce the tuning range.

You could get away with the series capacitor and put multiple (maybe
10) varactors in series. Thus, the RF voltage across each varactor
would be low. You will need a high tuning voltage, perhaps 100 V.

The worst problem is how to get the DC voltage distributed over the
varactors. The simple solution would be to put resistors across each
varactor to form a voltage divider. Apart from possible thermal noise
problems (if weak signals are also involved), the nasty thing is the
resistors will have a parasitic capacitance across the ends of the
resistor. This capacitance is in parallel with the varactor, forming a
significant base capacitance. Also the losses (and hence Q) of these
parallel parasitic capacitances may degrade the total Q of the
resonant circuit. Putting multiple varactors in series also increase
the total inductance, which would not be so nice in this case, since
the inductance levels are already low.

However, if the parasitic capacitance/diode is much less than the
varactor minimum capacitance, quite large tuning ranges could be
obtained.

>I also don't get this talk about the filter Z. Since you'd need to Z match
>in/out of the filter, it seems to me the varactor voltages will be the same
>for any Zin/out since this will be determined by how "tightly" they are

>coupled into the resonant circuit and not the Zin/Zout, no? The Z match
>will just change the Vin/out.

Think about two resonant circuits coupled by a small capacitance at the top. Connect the signal from the input line to the first resonator using inductive coupling (transformer with untuned primary). By selecting the number of turns on the primary, you can get any impedance transformation ratio, so you can match the 50 ohm line to any low impedance resonator. On the output side on the other resonator, you can do the opposite with the other transformer and restore the impedance to 50 ohms for the output line.

To reduce the Z in a resonator, you will have to reduce both the inductive Xl and capacitive Xc reactance by reducing the inductance and increasing the capacitance (e.g. by multiple varactors).

Rhode wrote an article in QST a few years ago about running the HF varactor tuning front end at a lower impedance level to avoid the high RF voltages on the varactors.

In VHF/UHF reducing the inductance to enable larger capacitances and thus lower impedance and RF voltages is problematic, since the inductance is already extremely small.

In principle it should be possible to connect several "coils" in parallel (actual wire loops across the capacitor) and this is how many text books explain how the cavity resonators are formed by adding further and further wire loops surrounding the capacitor. However, I have never seen parallel "coils" in any practical circuit, apparently there are some parasitic capacitance problems.

However, I think that the OP should also study of making a shortened 1/4 (stripline or microstrip) resonator, with very wide resonators (and thus low impedance levels) and do the impedance transformation at the input and output coupling. If multiple stage filtering is needed, look for interdigital filters and again design for low resonator impedances to reduce the RF voltage across the tuning capacitors. These might be more practical for the intended frequencies than ordinary LC filters.

If the tuning speed is not very large, look for some mechanical tuning at the end of the stripline resonator, such as moving the grounding electrode closer to the resonator hot end by a piezoelectric crystal etc., thus increasing the capacitance.

Paul OH3LWR

3422. Re: Electronic tuning (high voltage varactors)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-02 17:28:08 UTC
From: Joel Kolstad <JKolstad71HatesSpam@Yahoo.Com>
Message-ID: <QMudnTC17778XhrcRVn-2g@comcast.com>
Source record: 22306

Hi Paul,

Thanks again for the suggestions; I need to do a few simulations to see how viable some of the approaches are.

> However, I think that the OP should also study of making a shortened
> 1/4 (stripline or microstrip) resonator, with very wide resonators
> (and thus low impedance levels) and do the impedance transformation at
> the input and output coupling.

The problem with this approach is that I've yet to see a stripline/microstrip resonator design that -- by design -- doesn't have re-entrant modes well before covering a 16.7:1 range (30-500MHz, in my case). Otherwise I'd be all for it!

> If the tuning speed is not very large

It's not, 'some low number of seconds' to re-tune is fine.

I don't suppose anyone makes motorized piston trimmer caps? Sure would be nice...

---Joel

3423. Re: Electronic tuning (high voltage varactors)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-02 17:58:17 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <cm8i0t$5tu$1@newshost.mot.com>
Source record: 22307

"Paul Keinanen" <keinanen@sci.fi> wrote in message
news:gudeo0le0jeu01qh23s961b14k2crvh2c5@4ax.com...
> On Mon, 1 Nov 2004 17:24:10 -0600, "Steve Nosko"
> <suteuve.nosukowicuz@moutouroula.com> wrote:
> > The "back to back" configuration I am familiar with is like this:
> >> + Control voltage
> >> |
> >> R
> >> |
> >> +----|>|-----+---|<|---+
> >> | |
> >> | |
> >> +--LLLLLLLL+LLLLLLLLL--+
> >
> >There could also be a series cap in this configuration--...
>
> You would need fixed capacitors on _both_ anodes and also resistors to
> ground from both anodes to get the DC bias. The small series
> capacitors are essential, since they take the most part of the RF
> voltage.

Hi Paul,

Why both? It is the total series cap which is of concern. One cap
would simply be half the value of each of the two. 2 x 5pf = 1 x 2.5pf,
no?

>Of course, the series resistor will reduce the tuning range.

I don't see this. It would be just like the one shown. 100k or 1M. It
is for DC and is large enough to be neglegible at RF. (strays acknowledged)

I think there are many two diode configurations.
One option:
> >> + Control voltage
> >> |
> >> R
> >> 2.5pf |
> >> +-||-+-|>|---+---|<|---+
> >> | | |
> >> | R |
> >> | | |
> >> | gnd |
> >> | |
> >> | |
> >> +--LLLLLLLL+LLLLLLLLL--+ DC gnd down here

THough I don't think it is necessary, if you require symmetry.
Another option:
> >> +----+ Control voltage
> >> | |
> >> R R
> >> | |
> >> +----|>|-+-||-+--|<|---+
> >> | 2.5pf |
> >> | |
> >> | |
> >> | |
> >> | |
> >> | |
> >> +--LLLLLLLL+LLLLLLLLL--+

Another option:
> >> +-----------+ Control voltage
> >> | |
> >> R R
> >> | |
> >> +-||-+-|<|-+-|>|-+--||-+
> >> | 5pf | 5pf |
> >> | | |
> >> | gnd |
> >> | |
> >> | |
> >> | |
> >> +--LLLLLLLL+LLLLLLLLL--+

[[I am obviously ignoring parasitics of the diode or cap body to ground.
More "stuff" of any kind in tthe in the circuit = more paracitic capacitance
to fight. That is a mechanical RF layout issue and, of course, not to be
ignored.]]
>
> You could get away with the series capacitor and put multiple (maybe
> 10) varactors in series. Thus, the RF voltage across each varactor
> would be low. You will need a high tuning voltage, perhaps 100 V.

I agree, Clearly a complex arrangement. However, is there really an
advantage to having low voltage if you now have so many contributors to the
problems...

> ... I also don't get this talk about the filter Z. Since you'd need to Z
match
> >in/out of the filter, it seems to me the varactor voltages will be the
same
> >for any Zin/out since this will be determined by how "tightly" they are
> >coupled into the resonant circuit and not the Zin/Zout, no? The Z match
> >will just change the Vin/out.
>
> [describes z matching in/out of a filter...]

That's my point. Once you select an inductor type, you have fixed a number of future decisions. The transformation can get you to wherever you need to be *IN* the resonator....see next
>
> To reduce the Z in a resonator, you will have to reduce both the
> inductive Xl and capacitive Xc reactance by reducing the inductance
> and increasing the capacitance (e.g. by multiple varactors).

So now the varactor must be _more_ of the overall capacitance to get the desired tuning range, no. If you want minimal side effects, then the varactors need to be just barely inthe circuit, so to speak, which means that they will have small voltages.
>
> Rhode wrote an article in QST a few years ago about running the HF
> varactor tuning front end at a lower impedance level to avoid the high
> RF voltages on the varactors.

Probably necessary reading, but I guess that I am trying to point out that this is one of those "no free lunch" situations. That a wide tuning range AND good IM, temp performance are each pulling the design in opposite directions? I mean:
Wide tuning - means -> varactors need to be a larger fraction of the total capacitance...
But this means that the non linearity and temp drift of the diode has more effect.
If you put series caps to reduce voltage, although you are reducing the effect of cap non linearity and temp drift because the diode is now "decoupled" from the tuned circuit, you are reducing the potential tuning range.

I have no significant comments on most of the rest...except...

> ...However, I
> have never seen parallel "coils" in any practical circuit, apparently
> there are some parasitic capacitance problems.

Side bar: My first "short wave" receiver did this.
Take one 50's tube AM radio. Parallel both the RF
and LO coils with outboard coils to get 75 Meter
phone band (it was mostly AM then). I think it was
in Popular Electronics or some such mag.
>
> However, I think that the OP should also study of making a shortened
> 1/4 (stripline or microstrip) resonator, with very wide resonators

Been there, done that (not varactor tuned, though). The needed direction.

> (and thus low impedance levels) and do the impedance transformation at
> the input and output coupling. If multiple stage filtering is needed,
> look for interdigital filters

Sure, Interdigital or combline... 220, 221. Whatever it takes...

>
> If the tuning speed is not very large, look for some mechanical tuning
> at the end of the stripline resonator,

Something you should not reject is a "ranged" system. Tune a smaller
range with the varactors and switch in/out other caps for larger shifts.

73,
--
Steve N, K,9;d, c. i My email has no u's.

3424. Re: yahoo Swan Siltronix Group

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-02 19:52:33 UTC
From: keyklonzrnutjobs@yahoo.com
Message-ID: <586e7bbf.0411021152.1d6d487a@posting.google.com>
Source record: 22308
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.cb,rec.radio.swap

Ron <wa0kds@yahoo.com> wrote in message news:<4186A8B2.8070608@yahoo.com>...
> Swan sold a lot of equipment and a lot of people were very satisified
> with it. Yes they might drift a little but all the radios of that time
> did. Swan was one of the first to make a transceiver if not the first.
> Swan was a key player in our history so go knock Collins that should
> have been right up at the top that also had numerous problems. Swan gave
> the rest of us something to operate if the person wasn't a homebrew type
> so rich.
>
>
>
>
> Psychiatrist to keyclowns wrote:
>
> > Skipp is just passing the word <picklesandcheese@yahoo.com> wrote in message
news:<cluhuocnm1@skeeter.ucdavis.edu>...
> >
> >>Bill P. has started a Swan - Siltronix yahoo group:
> >>
> >>TheSwan-Siltronix1011Bunch@yahoogroups.com
> >>
> >>Everyone is welcome
> >>
> >>cheers
> >>skipp
> >>
> >>spamtheotherguyplease@hisemail.now
> >
> >
> > This would be the internet equivalent to a bunch of nutcases standing
> > around a stinking outhouse and sniffing below the seat to discuss the
> > odor with each other. Especially considering what a piece of garbage a
> > Siltronix 1011 is.

Fine, fella...but the Siltronix 1011 was just the precursor to
"export" radios. Thinly disguised as a 10 meter rig, it was sold to
the CB market. Swan marketed it under the Siltronix name just so they
wouldnt be accused of pandering to illegal keyclown CB'ers. No way
were hams going to pay that price for a monoband radio, especially one
that didnt just "drift"...those junkpiles MIGRATED!

3425. Re: Electronic tuning (high voltage varactors)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-02 20:09:35 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <tinfo0962h8c1h9n5hi2j89vdubkbe8m0g@4ax.com>
Source record: 22309

On Tue, 2 Nov 2004 11:58:17 -0600, "Steve Nosko"
<suteuve.nosukowicuz@moutouroula.com> wrote:

> Why both? It is the total series cap which is of concern. One cap
>would simply be half the value of each of the two. 2 x 5pf = 1 x 2.5pf,
>no?

Yes, it is doable with one fixed capacitor, however, the voltages
across the stray capacitances would be different and their effect
would be harder to predict.

>
>>Of course, the series resistor will reduce the tuning range.
>
> I don't see this. It would be just like the one shown. 100k or 1M. It
>is for DC and is large enough to be neglegible at RF. (strays acknowledged)

I meant to say series _capacitance_ (not resistance), sorry for the
confusion.

>THough I don't think it is necessary, if you require symmetry.
>Another option:
>> >> +----+ Control voltage
>> >> | |
>> >> R R
>> >> | |
>> >> +----|>|-+-||-+--|<|---+
>> >> | 2.5pf |
>> >> | |
>> >> | |
>> >> | |
>> >> | |
>> >> | |
>> >> +--LLLLLLLL+LLLLLLLLL--+

This would be an elegant solution.

>
>Another option:
>> >> +-----------+ Control voltage
>> >> | |
>> >> R R
>> >> | |
>> >> +-||-+-|<|-+-|>|-+--||-+
>> >> | 5pf | 5pf |
>> >> | | |

```
>> >> | gnd |
>> >> | |
>> >> | |
>> >> | |
>> >> +--LLLLLLLL+LLLLLLLLL--+
```

As well as this.

>> To reduce the Z in a resonator, you will have to reduce both the
>> inductive Xl and capacitive Xc reactance by reducing the inductance
>> and increasing the capacitance (e.g. by multiple varactors).
>
> So now the varactor must be _more_ of the overall capacitance to get the
>desired tuning range, no. If you want minimal side effects, then the
>varactors need to be just barely inthe circuit, so to speak, which means
>that they will have small voltages.

For a given total capacitance, putting more varactors in parallel means that the capacitance each varactor must produce is reduced, thus the tuning voltage must be increased, which is a good thing, since this improves the ratio between the tuning voltage and RF voltage. Dropping the impedance levels and hence increasing the capacitance required also means that even more varactors can be connected in parallel.

>> However, I think that the OP should also study of making a shortened
>> 1/4 (stripline or microstrip) resonator, with very wide resonators

<clip>

> Something you should not reject is a "ranged" system. Tune a smaller
>range with the varactors and switch in/out other caps for larger shifts.

The OP clearly had something similar in mind, since he originally asked for a 2:1 tuning range, but now he is asking for the 30-500 MHz range. I do not think that such huge range can be handled by just switching base capacitors. With such large frequency range, it would make more sense, to build at least three completely independent filters, say 30-90 MHz, 90-270 MHz and 270-500 MHz, while each filter could switch in base capacitances. The two lower filters could be lumped LC filters, while the last range could be limited to less than one octave, so that strip line filters could be used.

Paul OH3LWR

3426. Re: Electronic tuning (high voltage varactors)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-02 20:41:13 UTC
From: Joel Kolstad <JKolstad71HatesSpam@Yahoo.Com>
Message-ID: <94CdndaMyMwnbRrcRVn-3A@comcast.com>
Source record: 22310

"Paul Keinanen" <keinanen@sci.fi> wrote in message
> The OP clearly had something similar in mind

Yes, that was my plan.

> since he originally
> asked for a 2:1 tuning range, but now he is asking for the 30-500 MHz
> range. I do not think that such huge range can be handled by just
> switching base capacitors. With such large frequency range, it would
> make more sense, to build at least three completely independent
> filters, say 30-90 MHz, 90-270 MHz and 270-500 MHz, while each filter
> could switch in base capacitances.

I was thinking of two... 30-125MHz and 125-500MHz. I.e., each one tunes a range of about 4:1. Something like 3-5 base capacitors would provide the broad tuning, with varactors doing the fine tuning.

> The two lower filters could be
> lumped LC filters, while the last range could be limited to less than
> one octave, so that strip line filters could be used.

The problem is that even though the 125-500MHz filter only needs to create a bandstop region somewhere in the 125-500MHz range, it must otherwise still pass the complete 30-500MHz range. As far as I can tell, this still eliminates all distributed-style filters from consideration.

---Joel

3427. Need help IDing a cap

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-02 22:28:44 UTC
From: kg4ggx@aol.com
Message-ID: <20041102172844.05725.00000005@mb-m25.aol.com>
Source record: 22311

Hi to all
I have a capacitor that is leaking a cruddy white substance. The only thing on it is as follows.
SPRAGUE +
183-1901-00
250 - 30 DC
D35672

6626

I listed the info just as it appears on the cap. I can see that it is an aluminum polerized cap. However, I need to find out the values so I can replace it.
Thanks to all that reply.
73 Rob K4MAU

3428. Re: Need help IDing a cap

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-02 22:36:38 UTC
From: Dale Parfitt <par@parelectronics.com>
Message-ID: <WZThd.3106$cA4.1413@trnddc01>
Source record: 22312

"KG4GGX" <kg4ggx@aol.com> wrote in message
news:20041102172844.05725.00000005@mb-m25.aol.com...
> Hi to all
> I have a capacitor that is leaking a cruddy white substance. The only
thing on
> it is as follows.
> SPRAGUE +
> 183-1901-00
> 250 - 30 DC
> D35672
>
> 6626
>
> I listed the info just as it appears on the cap. I can see that it is an
> aluminum polerized cap. However, I need to find out the values so I can
replace
> it.
> Thanks to all that reply.
> 73 Rob K4MAU
My guess would be 250 uF @30VDC
Dale W4OP

3429. Re: Electronic tuning (high voltage varactors)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-02 22:43:59 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <cm92od$8m4$1@newshost.mot.com>
Source record: 22315

"Paul Keinanen" <keinanen@sci.fi> wrote in message
news:tinfo0962h8c1h9n5hi2j89vdubkbe8m0g@4ax.com...
> On Tue, 2 Nov 2004 11:58:17 -0600, "Steve Nosko"
> <suteuve.nosukowicuz@moutouroula.com> wrote:
>
>
> > Why both? It is the total series cap which is of concern. ...
>
> Yes, it is doable with one fixed capacitor, however, the voltages
> across the stray capacitances would be different and their effect
> would be harder to predict.

Yes, at the higher freqs, strays become significant, as I remarked.
...
>
> For a given total capacitance, putting more varactors in parallel
> means that the capacitance each varactor must produce is reduced, thus
> the tuning voltage must be increased, which is a good thing, since
> this improves the ratio between the tuning voltage and RF voltage.
> Dropping the impedance levels and hence increasing the capacitance
> required also means that even more varactors can be connected in
> parallel.

... Let me ponder this... By golly, running several parallel varactors at
fifty volts does sound good, doesn't it. You are away from the high
non-linear region near zero. Never had that option, I guess.

--
Steve N, K,9;d, c. i My email has no u's.

3430. Re: yahoo Swan Siltronix Group

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-02 22:46:19 UTC
From: Steveo <moparholic@hotmail-nospam.com>
Message-ID: <20041102174619.907$zs@newsreader.com>
Source record: 22313
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.cb,rec.radio.swap

keyklonzrnutjobs@yahoo.com (Psychiatrist to keyclowns) wrote:
> Ron <wa0kds@yahoo.com> wrote in message
> news:<4186A8B2.8070608@yahoo.com>...
> > Swan sold a lot of equipment and a lot of people were very satisified
> > with it. Yes they might drift a little but all the radios of that time
> > did. Swan was one of the first to make a transceiver if not the first.
> > Swan was a key player in our history so go knock Collins that should
> > have been right up at the top that also had numerous problems. Swan
> > gave the rest of us something to operate if the person wasn't a
> > homebrew type so rich.
> >
> >
> >
> >
> > Psychiatrist to keyclowns wrote:
> >
> > > Skipp is just passing the word <picklesandcheese@yahoo.com> wrote in
> > > message news:<cluhuocnm1@skeeter.ucdavis.edu>...
> > >
> > >>Bill P. has started a Swan - Siltronix yahoo group:
> > >>
> > >>TheSwan-Siltronix1011Bunch@yahoogroups.com
> > >>
> > >>Everyone is welcome
> > >>
> > >>cheers
> > >>skipp
> > >>
> > >>spamtheotherguyplease@hisemail.now
> > >
> > >
> > > This would be the internet equivalent to a bunch of nutcases standing
> > > around a stinking outhouse and sniffing below the seat to discuss the
> > > odor with each other. Especially considering what a piece of garbage
> > > a Siltronix 1011 is.
>
> Fine, fella...but the Siltronix 1011 was just the precursor to
> "export" radios. Thinly disguised as a 10 meter rig, it was sold to
> the CB market. Swan marketed it under the Siltronix name just so they
> wouldnt be accused of pandering to illegal keyclown CB'ers. No way
> were hams going to pay that price for a monoband radio, especially one
> that didnt just "drift"...those junkpiles MIGRATED!
>

They were dual banded fugly, and a zillion of them were sold. Supply and demand.. just like you demand food stamps and I supply them.

3431. Re: Need help IDing a cap

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-02 23:11:02 UTC
From: w9gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <4uUhd.356655$D%.7421@attbi_s51>
Source record: 22314

"Dale Parfitt" <par@parelectronics.com> wrote in message
news:WZThd.3106$cA4.1413@trnddc01...
>
> "KG4GGX" <kg4ggx@aol.com> wrote in message
> news:20041102172844.05725.00000005@mb-m25.aol.com...
>> Hi to all
>> I have a capacitor that is leaking a cruddy white substance. The only
> thing on
>> it is as follows.
>> SPRAGUE +
>> 183-1901-00
>> 250 - 30 DC
>> D35672
>>
>> 6626
>>
>> I listed the info just as it appears on the cap. I can see that it is an
>> aluminum polerized cap. However, I need to find out the values so I can
> replace
>> it.
>> Thanks to all that reply.
>> 73 Rob K4MAU
> My guess would be 250 uF @30VDC
> Dale W4OP
>

I would agree with Dale. You can substitute with a high voltage rating (35 VDC or 50 VDC), if you can not find a capacitor with a 30 VDC. DO NOT go to a smaller voltage rating (25 VDC or 16 VDC), unless you are POSITIVE the capacitor "in circuit" will never reach this voltage (peak or otherwise).

Greg
W9GB

3432. Re: yahoo Swan Siltronix Group

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-03 00:55:47 UTC
From: U Know Who <AKC-M{AnonymousKeyboardCowardsMaster}@not-here.com>
Message-ID: <n0Whd.52624$EI6.30990@fe2.texas.rr.com>
Source record: 22316
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.cb,rec.radio.swap

"Steveo" <moparholic@hotmail-nospam.com> wrote in message
news:20041102174619.907$zs@newsreader.com...
> keyklonzrnutjobs@yahoo.com (Psychiatrist to keyclowns) wrote:
>> Ron <wa0kds@yahoo.com> wrote in message
>> news:<4186A8B2.8070608@yahoo.com>...
>> > Swan sold a lot of equipment and a lot of people were very satisified
>> > with it. Yes they might drift a little but all the radios of that time
>> > did. Swan was one of the first to make a transceiver if not the first.
>> > Swan was a key player in our history so go knock Collins that should
>> > have been right up at the top that also had numerous problems. Swan
>> > gave the rest of us something to operate if the person wasn't a
>> > homebrew type so rich.
>> >
>> >
>> >
>> >
>> > Psychiatrist to keyclowns wrote:
>> >
>> > > Skipp is just passing the word <picklesandcheese@yahoo.com> wrote in
>> > > message news:<cluhuocnm1@skeeter.ucdavis.edu>...
>> > >
>> > >>Bill P. has started a Swan - Siltronix yahoo group:
>> > >>
>> > >>TheSwan-Siltronix1011Bunch@yahoogroups.com
>> > >>
>> > >>Everyone is welcome
>> > >>
>> > >>cheers
>> > >>skipp
>> > >>
>> > >>spamtheotherguyplease@hisemail.now
>> > >
>> > >
>> > > This would be the internet equivalent to a bunch of nutcases standing
>> > > around a stinking outhouse and sniffing below the seat to discuss the
>> > > odor with each other. Especially considering what a piece of garbage
>> > > a Siltronix 1011 is.
>>
>> Fine, fella...but the Siltronix 1011 was just the precursor to
>> "export" radios. Thinly disguised as a 10 meter rig, it was sold to
>> the CB market. Swan marketed it under the Siltronix name just so they
>> wouldnt be accused of pandering to illegal keyclown CB'ers. No way
>> were hams going to pay that price for a monoband radio, especially one

>> that didnt just "drift"...those junkpiles MIGRATED!
>>
> They were dual banded fugly, and a zillion of them were sold. Supply and
> demand.. just like you demand food stamps and I supply them.

He's just pissed cause he was out of the loop in the day and no one would
sell him one. Much like now. :-)

3433. Re: yahoo Swan Siltronix Group

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-03 01:14:52 UTC
From: Steveo <moparholic@hotmail-nospam.com>
Message-ID: <20041102201452.709$UM@newsreader.com>
Source record: 22317
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.cb,rec.radio.swap

"U Know Who" <AKC-M{AnonymousKeyboardCowardsMaster}@not-here.com> wrote:
> "Steveo" <moparholic@hotmail-nospam.com> wrote in message
> news:20041102174619.907$zs@newsreader.com...
> >N8WWM keyklonzrnutjobs@yahoo.com (Psychiatrist to keyclowns) wrote:
> >> Ron <wa0kds@yahoo.com> wrote in message
> >> news:<4186A8B2.8070608@yahoo.com>...
> >> > Swan sold a lot of equipment and a lot of people were very
> >> > satisified with it. Yes they might drift a little but all the radios
> >> > of that time did. Swan was one of the first to make a transceiver
> >> > if not the first.
> >> > Swan was a key player in our history so go knock Collins that
> >> > should have been right up at the top that also had numerous
> >> > problems. Swan gave the rest of us something to operate if the
> >> > person wasn't a homebrew type so rich.
> >> >
> >> >
> >> >
> >> >
> >> >N8WWM Psychiatrist to keyclowns wrote:
> >> >
> >> > > Skipp is just passing the word <picklesandcheese@yahoo.com> wrote
> >> > > in message news:<cluhuocnm1@skeeter.ucdavis.edu>...
> >> > >
> >> > >>Bill P. has started a Swan - Siltronix yahoo group:
> >> > >>
> >> > >>TheSwan-Siltronix1011Bunch@yahoogroups.com
> >> > >>
> >> > >>Everyone is welcome
> >> > >>
> >> > >>cheers
> >> > >>skipp
> >> > >>
> >> > >>spamtheotherguyplease@hisemail.now
> >> > >
> >> > >
> >> > > This would be the internet equivalent to a bunch of nutcases
> >> > > standing around a stinking outhouse and sniffing below the seat to
> >> > > discuss the odor with each other. Especially considering what a
> >> > > piece of garbage a Siltronix 1011 is.
> >>
> >> Fine, fella...but the Siltronix 1011 was just the precursor to
> >> "export" radios. Thinly disguised as a 10 meter rig, it was sold to
> >> the CB market. Swan marketed it under the Siltronix name just so they

> >> wouldnt be accused of pandering to illegal keyclown CB'ers. No way
> >> were hams going to pay that price for a monoband radio, especially one
> >> that didnt just "drift"...those junkpiles MIGRATED!
> >>
> > They were dual banded fugly, and a zillion of them were sold. Supply
> > and demand.. just like you demand food stamps and I supply them.
>
> He's just pissed cause he was out of the loop in the day and no one would
> sell him one. Much like now. :-)
>
It cost him extra to find out they drift a bit..but he was able to
finally purchase one with the money that was supposed to feed his family.

That's why he's so bitter about 11 meters.

3434. Please Recommend Wireless Protocol and How-To/Tutorial

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-03 04:17:35 UTC
From: usenet@pobox.com
Message-ID: <8ded0ef5.0411022017.542f84a7@posting.google.com>
Source record: 22318
Cross-posted to:
comp.protocols.misc,comp.arch.embedded,rec.radio.amateur.digital.misc,rec.radio.amateur.homebrew,alt.radio.digital

I am a student in an embedded systems design class. I am planning a project where I'll get two 8051-microcontroller-based development boards with 433 MHz FM transceivers to talk to each other. Each development board will be connected via RS-232 to a computer running terminal software. My initial goal is to be able to send some keystrokes back and forth between the two systems.

The real challenge of the project is in developing my own wireless protocol to handle packetization, start and stop codes, error detection and correction, line coding, and perhaps collision handling. I am looking for a good tutorial on how to go about such a task--i.e. what options are available and guidelines for implementing them. Something on the web or a book would both be good. I was wondering if you might be able to make a recommendation.

Additionally, if you would please recommend any existing protocols that would be sufficient for my application, this would be very helpful because: a) I can use the existing protocol as a reference when developing my own and b) If it turns out to be too difficult to develop my own, I can switch my goal to implementing the existing protocol.

I would be very grateful for any assistance that you might be able to provide. Thanks so much for your help.

3435. Re: Please Recommend Wireless Protocol and How-To/Tutorial

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-03 15:14:11 UTC
From: Stefan Arentz <stefan.arentz@gmail.com>
Message-ID: <87k6t3yngc.fsf@keizer.soze.com>
Source record: 22319
Cross-posted to:
comp.protocols.misc,comp.arch.embedded,rec.radio.amateur.digital.misc,rec.radio.amateur.homebrew,alt.radio.digital

usenet@pobox.com (usenet@pobox.com) writes:

> I am a student in an embedded systems design class. I am planning a
> project where I'll get two 8051-microcontroller-based development
> boards with 433 MHz FM transceivers to talk to each other. Each
> development board will be connected via RS-232 to a computer running
> terminal software. My initial goal is to be able to send some
> keystrokes back and forth between the two systems.

Dude, do your own research :-)

I ordered these from www.futurlec.com:

http://www.futurlec.com/Radio.shtml

Good stuff for hobby projects.

S.

3436. Re: Please Recommend Wireless Protocol and How-To/Tutorial

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-03 15:29:42 UTC
From: john graesser <graesser@tca.net>
Message-ID: <10ohu3829d7j243@corp.supernews.com>
Source record: 22320
Cross-posted to:
comp.protocols.misc,comp.arch.embedded,rec.radio.amateur.digital.misc,rec.radio.amateur.homebrew,alt.radio.digital

<usenet@pobox.com> wrote in message
news:8ded0ef5.0411022017.542f84a7@posting.google.com...
> I am a student in an embedded systems design class. I am planning a
> project where I'll get two 8051-microcontroller-based development
> boards with 433 MHz FM transceivers to talk to each other. Each
> development board will be connected via RS-232 to a computer running
> terminal software. My initial goal is to be able to send some
> keystrokes back and forth between the two systems.
>
> The real challenge of the project is in developing my own wireless
> protocol to handle packetization, start and stop codes, error
> detection and correction, line coding, and perhaps collision handling.
> I am looking for a good tutorial on how to go about such a task--i.e.
> what options are available and guidelines for implementing them.
> Something on the web or a book would both be good. I was wondering if
> you might be able to make a recommendation.
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> Additionally, if you would please recommend any existing protocols
> that would be sufficient for my application, this would be very
> helpful because: a) I can use the existing protocol as a reference
> when developing my own and b) If it turns out to be too difficult to
> develop my own, I can switch my goal to implementing the existing
> protocol.
>
> I would be very grateful for any assistance that you might be able to
> provide. Thanks so much for your help.

The two that amateurs use are x25 and tcpip. The ham radio implemetation of
x25 (ax25) is what is used in packet radio. It is well documented in all
communication layers. Tcpip is well documented in the internet rfc and other
docs, though I don't remember seeing any timing specs like are included in
x25.

3437. Re: Please Recommend Wireless Protocol and How-To/Tutorial

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-03 16:10:13 UTC
From: K7MEM <k7mem@myrealbox.com>
Message-ID: <cmavt6$gi01@cui1.lmms.lmco.com>
Source record: 22321
Cross-posted to:
comp.protocols.misc,comp.arch.embedded,rec.radio.amateur.digital.misc,rec.radio.amateur.homebrew,alt.radio.digital

usenet@pobox.com wrote:
> I am a student in an embedded systems design class. I am planning a
> project where I'll get two 8051-microcontroller-based development
> boards with 433 MHz FM transceivers to talk to each other. Each
> development board will be connected via RS-232 to a computer running
> terminal software. My initial goal is to be able to send some
> keystrokes back and forth between the two systems.
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> The real challenge of the project is in developing my own wireless
> protocol to handle packetization, start and stop codes, error
> detection and correction, line coding, and perhaps collision handling.
> I am looking for a good tutorial on how to go about such a task--i.e.
> what options are available and guidelines for implementing them.
> Something on the web or a book would both be good. I was wondering if
> you might be able to make a recommendation.
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> Additionally, if you would please recommend any existing protocols
> that would be sufficient for my application, this would be very
> helpful because: a) I can use the existing protocol as a reference
> when developing my own and b) If it turns out to be too difficult to
> develop my own, I can switch my goal to implementing the existing
> protocol.
>
> I would be very grateful for any assistance that you might be able to
> provide. Thanks so much for your help.

Do a google search on "serial transfer protocol". You will get about
500,000 hits.

Initially look for the standard terminal communication protocol. That
already has some form of packetization, start and stop codes, error
detection and correction. It's relatively simple so you can expand from
there.

--
Martin E. Meserve - K7MEM
http://www.k7mem.150m.com

3438. Re: Please Recommend Wireless Protocol and How-To/Tutorial

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-03 17:00:43 UTC
From: "Rufus V. Smith" <nospam@nospam.com>
Message-ID: <B58id.1994$VI3.453@sam.nntpserver.com>
Source record: 22322
Cross-posted to:
comp.protocols.misc,comp.arch.embedded,rec.radio.amateur.digital.misc,rec.radio.amateur.homebrew,alt.radio.digital

<usenet@pobox.com> wrote in message
news:8ded0ef5.0411022017.542f84a7@posting.google.com...
> I am a student in an embedded systems design class. I am planning a
> project where I'll get two 8051-microcontroller-based development
> boards with 433 MHz FM transceivers to talk to each other. Each
> development board will be connected via RS-232 to a computer running
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> keystrokes back and forth between the two systems.
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> protocol to handle packetization, start and stop codes, error
> detection and correction, line coding, and perhaps collision handling.
> I am looking for a good tutorial on how to go about such a task--i.e.
> what options are available and guidelines for implementing them.
> Something on the web or a book would both be good. I was wondering if
> you might be able to make a recommendation.
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> Additionally, if you would please recommend any existing protocols
> that would be sufficient for my application, this would be very
> helpful because: a) I can use the existing protocol as a reference
> when developing my own and b) If it turns out to be too difficult to
> develop my own, I can switch my goal to implementing the existing
> protocol.
>
> I would be very grateful for any assistance that you might be able to
> provide. Thanks so much for your help.

Didn't the supplier of the transceivers give you any application
guidelines?

Rufus

3439. Re: yahoo Swan Siltronix Group

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-03 19:13:30 UTC
From: keyklonzrnutjobs@yahoo.com
Message-ID: <586e7bbf.0411031113.7df2968d@posting.google.com>
Source record: 22323
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.cb,rec.radio.swap

Steveo <moparholic@hotmail-nospam.com> wrote in message
news:<20041102201452.709$UM@newsreader.com>...
> "U Know Who" <AKC-M{AnonymousKeyboardCowardsMaster}@not-here.com> wrote:
> > "Steveo" <moparholic@hotmail-nospam.com> wrote in message
> > news:20041102174619.907$zs@newsreader.com...
> > >N8WWM keyklonzrnutjobs@yahoo.com (Psychiatrist to keyclowns) wrote:
> > >> Ron <wa0kds@yahoo.com> wrote in message
> > >> news:<4186A8B2.8070608@yahoo.com>...
> > >> > Swan sold a lot of equipment and a lot of people were very
> > >> > satisified with it. Yes they might drift a little but all the radios
> > >> > of that time did. Swan was one of the first to make a transceiver
> > >> > if not the first.
> > >> > Swan was a key player in our history so go knock Collins that
> > >> > should have been right up at the top that also had numerous
> > >> > problems. Swan gave the rest of us something to operate if the
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> > >> >N8WWM Psychiatrist to keyclowns wrote:
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> > >> > > Skipp is just passing the word <picklesandcheese@yahoo.com> wrote
> > >> > > in message news:<cluhuocnm1@skeeter.ucdavis.edu>...
> > >> > >
> > >> > >>Bill P. has started a Swan - Siltronix yahoo group:
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> > >> > >>spamtheotherguyplease@hisemail.now
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> > >> > > This would be the internet equivalent to a bunch of nutcases
> > >> > > standing around a stinking outhouse and sniffing below the seat to
> > >> > > discuss the odor with each other. Especially considering what a
> > >> > > piece of garbage a Siltronix 1011 is.
> > >>
> > >> Fine, fella...but the Siltronix 1011 was just the precursor to

> > >> "export" radios. Thinly disguised as a 10 meter rig, it was sold to
> > >> the CB market. Swan marketed it under the Siltronix name just so they
> > >> wouldnt be accused of pandering to illegal keyclown CB'ers. No way
> > >> were hams going to pay that price for a monoband radio, especially one
> > >> that didnt just "drift"...those junkpiles MIGRATED!
> > >>
> > > They were dual banded fugly, and a zillion of them were sold. Supply
> > > and demand.. just like you demand food stamps and I supply them.
> >
> > He's just pissed cause he was out of the loop in the day and no one would
> > sell him one. Much like now. :-)
> >
> It cost him extra to find out they drift a bit..but he was able to
> finally purchase one with the money that was supposed to feed his family.
>
> That's why he's so bitter about 11 meters.

The chip is working, I see.

3440. Re: Need help IDing a cap

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-03 23:38:57 UTC
From: kg4ggx@aol.com
Message-ID: <20041103183857.06403.00000040@mb-m22.aol.com>
Source record: 22324

Thanks for the replys.
73 Rob k4mau

3441. christmas cash

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-04 03:29:27 UTC
From: RBroesky <rmbbroesky@shaw.ca>
Message-ID: <rmhid.110968$%k.91725@pd7tw2no>
Source record: 22325
Cross-posted to: fr.rec.son-image.home-cinema,it.hobby.home-cinema,mail.homebrew,rec.aviation.homebuilt,rec.games.video.classic,rec.radio.amateur.homebrew,sci.homebrew,uiuc.org.homebrewers,uk.media.home-cinema

THE QUICKEST WAY TO MAKE EASY MONEY_NO SCAM" A while back, I was browsing these newsgroups, just like you are now, and came across an article similar to this that said you could make thousands of CASH within weeks with only an initial investment of $6.00 plus stamps! So I thought, "Yeah, right, this must be a scam!" But like most of us I was curious and kept reading. It said that if you send $1.00 to each of the 6 names and addresses listed in the article, you could make thousands in a very short period of time. You then place your own name and address at the bottom of the list at #6, and post the article to at least 300 newsgroups. (There are about 32,000 of them out there and that's quite a large market pool). No catch, that was it. Even though the investment was a measly $6, I had three questions that needed to be answered before I could get involved in this sort of thing. 1. IS THIS REALLY LEGAL? I called a lawyer first. The lawyer was a little sceptical that I would actually make any CASH but he said it WAS LEGAL if I wanted to try it. I told him it sounded a lot like a chain letter but the details of the system (SEE BELOW) actually made it a legitimate legal business. 2. IS OK WITH THE POST OFFICE OR IS IT MAIL FRAUD? I called them: 1_800_725_2161 and they confirmed THIS IS ABSOLUTELY LEGAL! (See 18, h sections1302 NS 1341 of Postal Lottery Laws). This clarifies the program of collecting names and addresses for a mailing list. 3. IS IT RIGHT? Well, everyone who sends me a buck has a good chance of getting A LOT of CASH ... a much better chance than buying a lottery ticket!!! So, having these questions answered, I invested EXACTLY six $1.00 bills and six 37 cent postage stamps ... and boy am I glad I did!!! Within 7 days, I started getting CASH in the mail! I was shocked! I figured it would end soon and didn't give it another thought. But the CASH continued coming in. In my first week I made between $20 to $30. By the end of the second week I had a made a total of $1,000.00. In the third week I had over $10,000.00 and it was still growing. This is now my fourth week and I have made a total of just over $42,000 and it's still coming in ..... It's certainly worth $6.00 and 6 stamps !!! Also, make sure you print a copy of this article NOW, so you can get the information off of it as you need it. I promise you that if you follow the directions exactly, that you will start making more CASH than you thought possible by doing something so easy! Suggestion: Read this entire message carefully! (print it out or download it.) Follow the simple directions and watch the CASH come in! It's easy. It's legal. And, your investment is only $6.00 (Plus postage)

IMPORTANT: This is not a rip off; it is not indecent; it is not illegal; and it is virtually no risk it really works!!!! If all of the following instructions are adhered to, you will receive extraordinary dividends. PLEASE NOTE: Please follow these directions EXACTLY, and $50,000 or more can be yours in 20 to 60 days. This program remains successful because of the honesty and integrity of the participants. Please continue its success by

carefully adhering to the instructions. You will now become part of the Mail Order business. In this business your product is not solid and tangible, it's a service. You are in the business of developing Mailing Lists. Many large corporations are happy to pay big bucks for quality lists. However, the CASH made from the mailing lists is secondary to the income which is made from people like you and me asking to be included in that list. Here are the 4 easy steps to success: STEP 1: Get 6 separate pieces of paper and write the following on each piece of paper "PLEASE PUT ME ON YOUR MAILING LIST." Now get 6 US $1.00 bills and place ONE inside EACH of the 6 pieces of paper so the bill will not be seen through the envelope (to prevent thievery). Place one paper in each of the 6 envelopes and seal them. You should now have 6 sealed envelopes, each with a piece of paper stating the above phrase, your name and address, and a $1.00 bill. What you are doing is creating a service. THIS IS ABSOLUTELY LEGAL! You are requesting a legitimate service and you are paying for it! Like most of us I was a little skeptical and a little worried about the legal aspects of it all. So I checked it out with the U.S. Post Office (1_800_725_2161) and they confirmed that it is indeed legal! Mail the 6 envelopes to the following addresses:

#1) Justin Carney 2802 Noble Fir Ct Woodbridge, VA 22192
#2) Anthony Pappion Sutherland Hall 811E-2 3725 Sutherland Dr. Pittsburg, PA 15213
#3) L. Lewis P.O. Box 203 Gambrills, MD 21054
#4) J.A. Goode 3955 S Algonquin Dr #70 Las Vegas, NV 89119
#5) Kenneth Murphy 139 Argyle St. Keyser, WV 26726
#6)Roy Broesky, 182C Chapel Drive, Steinbach, Manitoba, Canada R5G 2H7

STEP 2: Now take the #1 name off the list that you see above, move the other names up (6 becomes 5, 5 becomes 4, etc...) and add YOUR Name as number 6 on the list. STEP 3: Change anything you need to, but try to keep this article as close to original as possible. Now, post your amended article to at least 300 newsgroups. (I think there are close to 32,000 groups) All you need is 300, but remember, the more you post, the more CASH you make! This is perfectly legal! If you have any doubts, refer to 18 Sec. 1302 & 1341 of the Postal lottery laws. Keep a copy of these steps for yourself and, whenever you need CASH, you can use it again, and again. PLEASE REMEMBER that this program remains successful because of the honesty and integrity of the participants and by their carefully adhering to the directions. Look at it this way. If you are a person of integrity, the program will continue and the CASH that so many others have received will come your way. NOTE: You may want to retain every name and address sent to you, either on a computer or hard copy and keep the notes people send you. This VERIFIES that you are truly providing a service. (Also, it might be a good idea to wrap the $1 bill in dark paper to reduce the risk of mail theft.) So, as each post is downloaded and the directions carefully followed, six members will be reimbursed for their participation as a List Developer with one dollar each. Your name will move up the list geometrically so that when your name reaches the #1 position you will be receiving thousands of CASH in CASH!!! What an opportunity for only $6.00 ($1.00 for each of the first six people listed above) Send it now, add your own name to the list and you're in business! ___DIRECTIONS _____ FOR HOW TO POST TO NEWSGROUPS Step 1) You do not need to

re_type this entire letter to do your own posting. Simply put your cursor at the beginning of this letter and drag your cursor to the bottom of this letter, and select 'copy' from the edit menu. This will copy the entire letter into the computer's memory. Step 2) Open a blank 'notepad' file and place your cursor at the top of the blank page. From the 'edit' menu select 'paste'. This will paste a copy of the letter into notepad so that you can add your name to the list. Step 3) Save your new notepad file as a .txt file. If you want to do your postings in different settings, you'll always have this file to go back to. Step 4) Use Netscape or Internet explorer and try searching for various newsgroups (on_line forums, message boards, chat sites, discussions.) Step 5) Visit these message boards and post this article as a new message by highlighting the text of this letter and selecting paste from the edit menu. Fill in the Subject, this will be the header that everyone sees as they scroll through the list of postings in a particular group, click the post message button. You're done with your first one! Congratulations...THAT'S IT! All you have to do is jump to different newsgroups and post away, after you get the hang of it, it will take about 30 seconds for each newsgroup! **REMEMBER, THE MORE NEWSGROUPS YOU POST IN, THE MORE CASH YOU WILL MAKE!! BUT YOU HAVE TO POST A MINIMUM OF 300** That's it! You will begin receiving CASH from around the world within days! You may eventually want to rent a P.O.Box due to the large amount of mail you will receive. If you wish to stay anonymous, you can invent a name to use, as long as the postman will deliver it. **JUST MAKE SURE ALL THE ADDRESSES ARE CORRECT.** Now the WHY part: Out of 300 postings, say I receive only 7 replies (a very low example). So then I made $7.00 with my name at #6 on the letter. Now, each of the 7 persons who just sent me $1.00 make the MINIMUM 300 postings, each with my name at #5 and only 7 persons respond to each of the 7 original 7, that is another $49.00 for me, now those 49 each make 300 MINIMUM posts with my name at #4 and only 7 replies each, I will bring in an additional $343.00! Now, those 343 persons turn around and post the MINIMUM 300 with my name at #3 and only receive 7 replies each, I will make an additional $2401.00! OK, now here is the fun part, each of those 2401 persons post a MINIMUM 300 letters with my name at #2 and they each only receive 7 replies, that just made me $16,807.00!!! Those 16807 persons will all deliver this message to 300 newsgroups with my name at #1 and if still 7 persons per 300 Newsgroups react I will receive $117,649.00! With an original investment of only $6.00! And some stamps. AMAZING! When your name is no longer on the list, you just take the latest posting in the newsgroups, and send out another $6.00 to names on the list, putting your name at number 6 again. And start posting again. The thing to remember is: do you realize that thousands of people all over the world are joining the internet and reading these articles everyday? JUST LIKE YOU are now!! So, can you afford $6.00 and see if it really works?? I think so... People have said, "what if the plan is played out and no one sends you the CASH? So what! What are the chances of that happening when there are tons of new honest users and new honest people who are joining the internet and newsgroups everyday and are willing to give it a try? Estimates are at 20,000 to 50,000 new users, every day, with thousands of those joining the actual internet. Remember, play FAIRLY and HONESTLY and this will really work. ** By the way, if you try to deceive people by posting the messages

with your name in the list and not sending the CASH to the rest of the people already on the list, you will NOT get as much. Someone I talked to knew someone who did that and he only made about $150.00, and that's after seven or eight weeks! Then he sent the 6 $1.00 bills, people added him to their lists, and in 4_5 weeks he had over $10k. This is the fairest and most honest way I have ever seen to share the wealth of the world without costing anything but our time!!! You also may want to buy mailing and e_mail lists for future CASH. Make sure you print this article out RIGHT NOW! Also, try to keep a list of everyone that sends you CASH and always keep an eye on the newsgroups to make sure everyone is playing fairly. Remember, HONESTY IS THE BEST POLICY. You don't need to cheat the basic idea to make the CASH!! GOOD LUCK to all and please play fairly and reap the huge rewards from this, which is tons of extra CASH. Please remember to declare your extra income. Thanks once again... "People have asked me if this is really legal. Well, it is! You are using the Internet to advertise your business. What is that business? You are creating a mailing list of people who are interested in home based computer and online business and methods of generating income at home. Remember, people send you a small fee to be added to your mailing list. It is legal. What will you do with your list of thousands of names? That's up to you." So, build your mailing list, keep good accounts, declare the income and pay your taxes. By doing this you prove your business intentions. Keep an eye on the newsgroups and when the cash has stopped coming (that means your name is no longer on the list), you just take the latest posting at the newsgroups, send another $6.00 to the names stated on the list, make your corrections (put your name at #6) and start posting again. NOTES: *1. In some countries, the export of the country's exchange is illegal. But you can get the license to do this from the post office, explaining the above statements (that you have an online business, etc. You may have to pay an extra tax, but that's OK, the amount of the incoming CASH is HUGE! And as I said, a few countries have that restriction . *2. You may want to buy mailing and e_mail lists for future CASH. (Or Database or Spreadsheet software.) *3. If you're really not sure or still think this can't be for real, please print a copy of this article and give it to someone who really needs the CASH, and see what happens. *4. You will start getting responses within 1_2 weeks, it depends. ***ALSO REMEMBER*** SEND YOUR $1 OUT TO EVERYONE ON THE LIST, EVEN IF THEY ARE NOT FROM THE U.S.

3442. Re: Need help IDing a cap

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-04 11:07:28 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <163ko0hjhuep6mon3kp4skrvvbcf8f5e8e@4ax.com>
Source record: 22326

On Tue, 02 Nov 2004 23:11:02 GMT, "w9gb" <onw9mapsgb@no.arrl.spam.net>
wrote:

>I would agree with Dale. You can substitute with a high voltage rating (35
>VDC or 50 VDC), if you can not find a capacitor with a 30 VDC. DO NOT go
>to a smaller voltage rating (25 VDC or 16 VDC), unless you are POSITIVE the
>capacitor "in circuit" will never reach this voltage (peak or otherwise).

Indeed. Is it correct, however, that one should not go *too much*
higher than the maximum anticipated voltage? I read somewhere that
using (for example) 25V electrolytics in a point in a circuit where
there was only a few volts of PD could result in some sort of problem.
:-/
--

"What is now proved was once only imagin'd." - William Blake, 1793.

3443. Re: Need help IDing a cap

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-04 18:10:34 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10oks4touqqrd94@corp.supernews.com>
Source record: 22327

There's no harm in using a capacitor whose voltage rating is far above the circuit voltage.

There is one peculiarity of electrolytics that should be kept in mind, however, and maybe it's what you're thinking of. The dielectric in an electrolytic capacitor is formed and maintained by leakage current. The dielectric layer grows until the leakage current drops to a very low value, at which point it quits getting thicker, for practical purposes. If an electrolytic capacitor is run at a low DC voltage for a very long time, the dielectric layer slowly dissolves or degrades. (The length of time depends on temperature and other factors, and in my experience typically takes years for significant degradation.) If it gets thin enough for leakage to occur, it grows back until the leakage drops to a very low value -- but no thicker. So eventually, a 25 volt electrolytic, say, run at 5 volts DC for a very long time, becomes a 5 volt electrolytic because its dielectric is just thick enough to sustain that voltage with minimal leakage. If it ever again needs to sustain 25 volts, it has to be refomred by gradually raising the voltage across it to allow the dielectric to reform without undue heating. It's this same phenomenon that causes old, unused electrolytics to get leaky and require reforming.

It's considered good design practice to never expose an electrolytic capacitor to more than 80% of its rated voltage, and some guidelines recommend less.

Roy Lewallen, W7EL

Paul Burridge wrote:
>
> Indeed. Is it correct, however, that one should not go *too much*
> higher than the maximum anticipated voltage? I read somewhere that
> using (for example) 25V electrolytics in a point in a circuit where
> there was only a few volts of PD could result in some sort of problem.
> :-/

3444. Re: christmas cash

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-04 20:21:27 UTC
From: Goffaq Yussef <nobody@ho.me>
Message-ID: <bbwid.16617$Fu2.3207@fe1.news.blueyonder.co.uk>
Source record: 22328
Cross-posted to: fr.rec.son-image.home-cinema,it.hobby.home-cinema,mail.homebrew,rec.aviation.homebuilt,rec.games.video.classic,rec.radio.amateur.homebrew,sci.homebrew,uiuc.org.homebrewers,uk.media.home-cinema

RBroesky wrote:
> SNIP BULLSHIT

Roy Broesky,
182C Chapel Drive,
Steinbach,
Manitoba,
Canada R5G 2H7

..... is clearly an ignorant fuckwit!

3445. Re: Please Recommend Wireless Protocol and How-To/Tutorial

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-04 23:17:38 UTC
From: usenet@pobox.com
Message-ID: <8ded0ef5.0411041517.67b5c463@posting.google.com>
Source record: 22329
Cross-posted to:
comp.protocols.misc,comp.arch.embedded,rec.radio.amateur.digital.misc,rec.radio.amateur.homebrew,alt.radio.digital

"Rufus V. Smith" <nospam@nospam.com> wrote in message
news:<B58id.1994$VI3.453@sam.nntpserver.com>...
> <usenet@pobox.com> wrote in message
> news:8ded0ef5.0411022017.542f84a7@posting.google.com...
> > I am a student in an embedded systems design class. I am planning a
> > project where I'll get two 8051-microcontroller-based development
> > boards with 433 MHz FM transceivers to talk to each other. Each
> > development board will be connected via RS-232 to a computer running
> > terminal software. My initial goal is to be able to send some
> > keystrokes back and forth between the two systems.
> >
> > The real challenge of the project is in developing my own wireless
> > protocol to handle packetization, start and stop codes, error
> > detection and correction, line coding, and perhaps collision handling.
> > I am looking for a good tutorial on how to go about such a task--i.e.
> > what options are available and guidelines for implementing them.
> > Something on the web or a book would both be good. I was wondering if
> > you might be able to make a recommendation.
> >
> > Additionally, if you would please recommend any existing protocols
> > that would be sufficient for my application, this would be very
> > helpful because: a) I can use the existing protocol as a reference
> > when developing my own and b) If it turns out to be too difficult to
> > develop my own, I can switch my goal to implementing the existing
> > protocol.
> >
> > I would be very grateful for any assistance that you might be able to
> > provide. Thanks so much for your help.
>
> Didn't the supplier of the transceivers give you any application
> guidelines?
>
> Rufus

Unfortunately, they didn't.

I'd like to thank all of you who have replied to this post for all of
your assistance. I have a strong desire to learn about wireless, but
unfortunately I took on a risk in doing so in that I've ventured
outside of the realm of my Professor's expertise and it's up to me to
figure it all out on my own. I am really hoping that the resources
you have suggested will be sufficient to enable me to get the job
done. If anyone else has anything to contribute, I would really

appreciate it. Thanks to you all...

3446. Re: Need help IDing a cap

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-04 23:27:13 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <1melo0prrin70261n205osmtcspjlqprq5@4ax.com>
Source record: 22330

On Thu, 04 Nov 2004 10:10:34 -0800, Roy Lewallen <w7el@eznec.com>
wrote:

Thanks, Roy. THat *was* what I had in mind.
--

"What is now proved was once only imagin'd." - William Blake, 1793.

3447. Re: Please Recommend Wireless Protocol and How-To/Tutorial

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-05 05:01:10 UTC
From: John Smith <kd5yikes@mindspring.com>
Message-ID: <qODid.18393$KJ6.5044@newsread1.news.pas.earthlink.net>
Source record: 22331
Cross-posted to:
comp.protocols.misc,comp.arch.embedded,rec.radio.amateur.digital.misc,rec.radio.amateur.homebrew,alt.radio.digital

<usenet@pobox.com> wrote in message
news:8ded0ef5.0411022017.542f84a7@posting.google.com...
>I am a student in an embedded systems design class. I am planning a
> project where I'll get two 8051-microcontroller-based development
> boards with 433 MHz FM transceivers to talk to each other. Each
> development board will be connected via RS-232 to a computer running
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> helpful because: a) I can use the existing protocol as a reference
> when developing my own and b) If it turns out to be too difficult to
> develop my own, I can switch my goal to implementing the existing
> protocol.
>
> I would be very grateful for any assistance that you might be able to
> provide. Thanks so much for your help.

Here is a free and open protocol... http://www.hth.com/snap/

You should learn why preambles are used when dealing with wireless
protocols. Circuit Cellar magazine (http://www.circuitcellar.com/) had an
article by Jeff Bachiochi about this in their July, 2001 (#132) issue. I
couldn't find the article on the Web, but you might be able to get a reprint
from the magazine. It is very informative.

Good luck in your project.

John

3448. Re: Please Recommend Wireless Protocol and How-To/Tutorial

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-05 05:25:56 UTC
From: torresD <nospam@nospam.com>
Message-ID: <2v0h6vF2fnk63U1@uni-berlin.de>
Source record: 22333
Cross-posted to:
comp.protocols.misc,comp.arch.embedded,rec.radio.amateur.digital.misc,rec.radio.amateur.homebrew,alt.radio.digital

You have to have the specs of the TXRX boards and the IO. You can use x modem or y modem or z modem or several gernic file transfer protocols, kermit, just to get going. why write all that code, and figure out the timing. and fine tune it later

"John Smith" <kd5yikes@mindspring.com> wrote in message news:qODid.18393$KJ6.5044@newsread1.news.pas.earthlink.net...
>
> <usenet@pobox.com> wrote in message
> news:8ded0ef5.0411022017.542f84a7@posting.google.com...
> >I am a student in an embedded systems design class. I am planning a
> > project where I'll get two 8051-microcontroller-based development
> > boards with 433 MHz FM transceivers to talk to each other. Each
> > development board will be connected via RS-232 to a computer running
> > terminal software. My initial goal is to be able to send some
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> > The real challenge of the project is in developing my own wireless
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> >
> > I would be very grateful for any assistance that you might be able to
> > provide. Thanks so much for your help.
>
>
> Here is a free and open protocol... http://www.hth.com/snap/
>
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> protocols. Circuit Cellar magazine (http://www.circuitcellar.com/) had an
> article by Jeff Bachiochi about this in their July, 2001 (#132) issue. I
> couldn't find the article on the Web, but you might be able to get a
reprint

> from the magazine. It is very informative.
>
> Good luck in your project.
>
> John
>
>

3449. Re: Please Recommend Wireless Protocol and How-To/Tutorial

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-05 05:28:12 UTC
From: Tom <noname@noprovider.nodomain>
Message-ID: <MbEid.2045$fn5.1371@trnddc06>
Source record: 22332
Cross-posted to:
comp.protocols.misc,comp.arch.embedded,rec.radio.amateur.digital.misc,rec.radio.amateur.homebrew,alt.radio.digital

You may want to take this in small pieces. Get a little bit working, then
add some
additional functions. That way you have at least something to show for a
project
if the entire effort turns out to be much larger than you thought.

Think about the most basic things first:
How do you turn the transmitter on and off?
How does the receiver know if it is receiving a signal?

Since you have an RS-232 connection between each radio and it's computer,
and
are using an ASCII terminal, how do you use ASCII codes to tell the radios
what to do, as opposed to telling the radio what data to send?

Next thing to think about:
How do you send control codes over the radio link?
How do you distinguish data you want to send over the link from control
information you want to send over the link?

I think if you figure out just this much you will have a sucessful project.

-- Tom

<usenet@pobox.com> wrote in message
news:8ded0ef5.0411022017.542f84a7@posting.google.com...
>I am a student in an embedded systems design class. I am planning a
> project where I'll get two 8051-microcontroller-based development
> boards with 433 MHz FM transceivers to talk to each other. Each
> development board will be connected via RS-232 to a computer running
> terminal software. My initial goal is to be able to send some
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> The real challenge of the project is in developing my own wireless
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> I am looking for a good tutorial on how to go about such a task--i.e.
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> Additionally, if you would please recommend any existing protocols
> that would be sufficient for my application, this would be very
> helpful because: a) I can use the existing protocol as a reference

> when developing my own and b) If it turns out to be too difficult to
> develop my own, I can switch my goal to implementing the existing
> protocol.
>
> I would be very grateful for any assistance that you might be able to
> provide. Thanks so much for your help.

3450. Re: Please Recommend Wireless Protocol and How-To/Tutorial

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-05 18:38:46 UTC
From: Joel Kolstad <JKolstad71HatesSpam@Yahoo.Com>
Message-ID: <FP6dneUpIbsCVRbcRVn-vw@comcast.com>
Source record: 22334
Cross-posted to:
comp.protocols.misc,comp.arch.embedded,rec.radio.amateur.digital.misc,rec.radio.amateur.homebrew,alt.radio.digital

"torresD" <nospam@nospam.com> wrote in message
news:2v0h6vF2fnk63U1@uni-berlin.de...
> You have to have the specs of the TXRX boards and the IO. You can use x
> modem or y modem or z modem or several gernic file transfer protocols,
> kermit, just to get going. why write all that code, and figure out the
> timing. and fine tune it later

I agree that a good way to start is with, e.g., XModem, since the original poster apparently has a 'virtual RS-232' connection between the transmitter and receiver going already. In fact, getting XModem or similar working should be sufficient for his project.

However, for 'real world' applications, you need to encapsulate the data in a much more robust encoding scheme -- at least if you need to go 'reasonable distances' with 'reasonable powers.' Wireless systems typically have bit error rates on the order of 10^-2 (1 in 100 bits bad), which will pretty much destroy the ability of protocols designed for 'wired' systems (TCP/IP, X/Y/ZModem, etc.) to function over any reasonable distance. Implementing sophisticated encoding with error correction would be a good follow-up project for the OP.

---Joel Kolstad

3451. Re: Please Recommend Wireless Protocol and How-To/Tutorial

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-05 19:06:47 UTC
From: Abimael Guzman <nospam@nospam.com>
Message-ID: <2v21a1F2grs1lU2@uni-berlin.de>
Source record: 22335
Cross-posted to:
comp.protocols.misc,comp.arch.embedded,rec.radio.amateur.digital.misc,rec.radio.amateur.homebrew,alt.radio.digital

"Joel Kolstad" <JKolstad71HatesSpam@Yahoo.Com> wrote in message
news:FP6dneUpIbsCVRbcRVn-vw@comcast.com...
> "torresD" <nospam@nospam.com> wrote in message
> news:2v0h6vF2fnk63U1@uni-berlin.de...
> > You have to have the specs of the TXRX boards and the IO. You can use x
> > modem or y modem or z modem or several gernic file transfer protocols,
> > kermit, just to get going. why write all that code, and figure out the
> > timing. and fine tune it later
>
> I agree that a good way to start is with, e.g., XModem, since the original
> poster apparently has a 'virtual RS-232' connection between the
transmitter
> and receiver going already. In fact, getting XModem or similar working
> should be sufficient for his project.
>
> However, for 'real world' applications, you need to encapsulate the data
in
> a much more robust encoding scheme -- at least if you need to go
'reasonable
> distances' with 'reasonable powers.' Wireless systems typically have bit
> error rates on the order of 10^-2 (1 in 100 bits bad), which will pretty
> much destroy the ability of protocols designed for 'wired' systems
(TCP/IP,
> X/Y/ZModem, etc.) to function over any reasonable distance. Implementing
> sophisticated encoding with error correction would be a good follow-up
> project for the OP.
>
> ---Joel Kolstad
>
That is a whole study area in itself, and it gets quite complicated.
It is quite dependent upon the channel characteristics too.
The hot code now is a class called Turbo codes, invented by some frenchies.
Good luck with your project

3452. Re: Please Recommend Wireless Protocol and How-To/Tutorial

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-05 19:52:10 UTC
From: "Jeffrey A. Wormsley" <jwormsley@nospam.debitek.com>
Message-ID: <Xns9598974302841jwormsleyatdebitekdo@195.191.14.90>
Source record: 22336
Cross-posted to:
comp.protocols.misc,comp.arch.embedded,rec.radio.amateur.digital.misc,rec.radio.amateur.homebrew,alt.radio.digital

"Joel Kolstad" <JKolstad71HatesSpam@Yahoo.Com> wrote in
news:FP6dneUpIbsCVRbcRVn-vw@comcast.com:

> ... which will pretty much destroy the ability of protocols designed for
> 'wired' systems (TCP/IP...

Actually, TCP/IP probably isn't a good example, as what is on the lower
layers can be entirely different and encoded and error corrected however
you like, as long as the other end brings it back to the same data. Ok,
that's probably a bit picky, but it is true. ;^)

Jeff.

3453. Looking to buy: MSA-1023 wideband amp MMIC

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-05 20:59:45 UTC
From: billb@eskimo.com
Message-ID: <2251b4e6.0411051259.431b21ad@posting.google.com>
Source record: 22337
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.repair

MSA-1023 2.5GHz 27dBm amplifiers were discontinued by HP/Agilent
a few years ago and don't seem to be available anywhere. Well,
I can get them from Hong Kong if I want to buy 200 of the things.
Does anyone here have two or three that they'd be willing to part
with? ...or know any likely parts sources? I've tried the usual
hobbyist places, but I'm not that familiar with microwave ham
suppliers. This is for repair of NMR research equipment at work.
(The big supermagnets in liquid helium are fun, but maintaining
European RF equipment is sometimes a pain.)

((((((((((((((((((((((((o)))))))))))))))))))))))
William J. Beaty Research Engineer
beaty@chem.washington.edu UW Chem Dept, Bagley Hall RM74
billb@eskimo.com Box 351700, Seattle, WA 98195-1700
ph206-543-6195 http//staff.washington.edu/wbeaty/

3454. Re: Please Recommend Wireless Protocol and How-To/Tutorial

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-05 21:25:07 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <h4rno0t15ijjf8u8v97u36mm1nlie5g1da@4ax.com>
Source record: 22338
Cross-posted to:
comp.protocols.misc,comp.arch.embedded,rec.radio.amateur.digital.misc,rec.radio.amateur.homebrew,alt.radio.digital

On Fri, 5 Nov 2004 10:38:46 -0800, "Joel Kolstad"
<JKolstad71HatesSpam@Yahoo.Com> wrote:

>However, for 'real world' applications, you need to encapsulate the data in
>a much more robust encoding scheme -- at least if you need to go 'reasonable
>distances' with 'reasonable powers.' Wireless systems typically have bit
>error rates on the order of 10^-2 (1 in 100 bits bad), which will pretty
>much destroy the ability of protocols designed for 'wired' systems (TCP/IP,
>X/Y/ZModem, etc.) to function over any reasonable distance. Implementing
>sophisticated encoding with error correction would be a good follow-up
>project for the OP.

For real world applications, you also need to consider the multipath
problem and avoidance using e.g. by frequency diversity (e.g.
frequency hopping) or space diversity (multiple antennas or movement).

With a fixed narrow band channel in the UHF and a stationary system,
you will sooner or later be in a spot, with a 20-40 dB signal level
drop, while the signal would be perfectly acceptable with the antenna
at a location 20-40 cm away or at a frequency 100 kHz away.

Paul

3455. Re: Please Recommend Wireless Protocol and How-To/Tutorial

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-05 21:37:50 UTC
From: CBFalconer <cbfalconer@yahoo.com>
Message-ID: <418BDEB5.16765D3A@yahoo.com>
Source record: 22339
Cross-posted to:
comp.protocols.misc,comp.arch.embedded,rec.radio.amateur.digital.misc,rec.radio.amateur.homebrew,alt.radio.digital

Joel Kolstad wrote:
> "torresD" <nospam@nospam.com> wrote in message
>
>> You have to have the specs of the TXRX boards and the IO. You can
>> use x modem or y modem or z modem or several gernic file transfer
>> protocols, kermit, just to get going. why write all that code, and
>> figure out the timing. and fine tune it later
>
> I agree that a good way to start is with, e.g., XModem, since the
> original poster apparently has a 'virtual RS-232' connection
> between the transmitter and receiver going already. In fact,
> getting XModem or similar working should be sufficient for his
> project.

Actually X and Y modem are likely to be very hard to get up on such
a system. Timing is quite critical, and turning around to listen
for an ack/nack is critical. This is one of the reasons Zmodem was
born.

--
Chuck F (cbfalconer@yahoo.com) (cbfalconer@worldnet.att.net)
Available for consulting/temporary embedded and systems.
<http://cbfalconer.home.att.net> USE worldnet address!

3456. Re: Looking to buy: MSA-1023 wideband amp MMIC

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-06 00:03:56 UTC
From: PJ <catguy@nospam.hushmail.com>
Message-ID: <2v2in8F2h9qs9U1@uni-berlin.de>
Source record: 22340
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.repair

"William J. Beaty" <billb@eskimo.com> wrote in message
news:2251b4e6.0411051259.431b21ad@posting.google.com...
> MSA-1023 2.5GHz 27dBm amplifiers were discontinued by HP/Agilent
> a few years ago and don't seem to be available anywhere. Well,
> I can get them from Hong Kong if I want to buy 200 of the things.
> Does anyone here have two or three that they'd be willing to part
> with? ...or know any likely parts sources? I've tried the usual
> hobbyist places, but I'm not that familiar with microwave ham
> suppliers. This is for repair of NMR research equipment at work.
> (The big supermagnets in liquid helium are fun, but maintaining
> European RF equipment is sometimes a pain.)
>
>
>
> ((((((((((((((((((((((((o)))))))))))))))))))))))
> William J. Beaty Research Engineer
> beaty@chem.washington.edu UW Chem Dept, Bagley Hall RM74
> billb@eskimo.com Box 351700, Seattle, WA 98195-1700
> ph206-543-6195 http//staff.washington.edu/wbeaty/

Would the MSA-0520 work? They are available form Agilent....Paul

http://we.home.agilent.com/USeng/nav/-536893722.536886033/pd.html

http://cp.literature.agilent.com/litweb/pdf/5967-5923E.pdf

3457. amateur radio

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-06 00:25:47 UTC
From: Brian Stephanik <bsteph@u.washington.edu>
Message-ID: <cmh5n1rtk2@gnus01.u.washington.edu>
Source record: 22341

Hi, I'm part of an amateur radio astronomy group at a college trying to get a dish on top of a roof to work. We have much of the equipment, but are having trouble putting it together, as far as how exactly to hook everything up. Would this be the right newsgroup to post to? Thanks.

-brian

3458. Re: amateur radio

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-06 00:55:37 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <MPG.1bf5c0e81e510d8498974a@news-central.giganews.com>
Source record: 22342

In article <cmh5n1rtk2@gnus01.u.washington.edu>,
bsteph@u.washington.edu says...
> Hi, I'm part of an amateur radio astronomy group at a college trying to
> get a dish on top of a roof to work. We have much of the equipment, but
> are having trouble putting it together, as far as how exactly to hook
> everything up. Would this be the right newsgroup to post to? Thanks.
>
> -brian
>

Possibly; couldn't hurt to try. But if your questions are specific to
antenna work, you might have better luck in rec.radio.amateur.antenna.

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

3459. Re: amateur radio

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-06 00:59:17 UTC
From: Brian Stephanik <bsteph@u.washington.edu>
Message-ID: <cmh7lrtck1@gnus01.u.washington.edu>
Source record: 22343

we currently have

ICOM 8500 Receiver
1420 MHz linear amp (company?)
21 cm(?) feed horn (assumed to be homemade)
Agilent E36-46A Power Generator
Agilent 8648B Signal Generator
Dish

we're curious about how to attatch all the components, and if we need
any other ones., thanks

-brian

John Miles wrote:
> In article <cmh5n1rtk2@gnus01.u.washington.edu>,
> bsteph@u.washington.edu says...
>
>>Hi, I'm part of an amateur radio astronomy group at a college trying to
>>get a dish on top of a roof to work. We have much of the equipment, but
>>are having trouble putting it together, as far as how exactly to hook
>>everything up. Would this be the right newsgroup to post to? Thanks.
>>
>>-brian
>>
>
>
> Possibly; couldn't hurt to try. But if your questions are specific to
> antenna work, you might have better luck in rec.radio.amateur.antenna.
>
> -- jm
>
> --
> http://www.qsl.net/ke5fx
> Note: My E-mail address has been altered to avoid spam
> --

3460. Re: amateur radio

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-06 03:02:31 UTC
From: Lou <lburkel@core.com>
Message-ID: <418C3EC7.C82D7E31@core.com>
Source record: 22344

Brian Stephanik wrote:
>
> Hi, I'm part of an amateur radio astronomy group at a college trying to
> get a dish on top of a roof to work. We have much of the equipment, but
> are having trouble putting it together, as far as how exactly to hook
> everything up. Would this be the right newsgroup to post to? Thanks.
>
> -brian
You might try looking over the sites on the following web ring.
http://a.webring.com/hub?ring=radioastro
If you need more information, you can email some of them who are
doing radio astronomy.
Lou AA9ZW

3461. Re: amateur radio

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-06 04:16:19 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <MPG.1bf5eff39e8f162698974b@news-central.giganews.com>
Source record: 22345

In article <cmh7lrtck1@gnus01.u.washington.edu>,
bsteph@u.washington.edu says...
> we currently have
>
> ICOM 8500 Receiver
> 1420 MHz linear amp (company?)
> 21 cm(?) feed horn (assumed to be homemade)
> Agilent E36-46A Power Generator
> Agilent 8648B Signal Generator
> Dish
>
>
> we're curious about how to attatch all the components, and if we need
> any other ones., thanks

Sounds like you're trying to listen for signals at the hydrogen line.
Probably would be helpful to be more specific about exactly what you're
trying to accomplish. Is an academic advisor available, or did the club
just get a bunch of (rather high-grade!) equipment donated to it with no
further guidance?

Hams involved in this type of work are often associated with the SETI
League (http://www.setileague.org/index.html). Not sure if there are
any SETI folks around the UDub or Seattle in general -- maybe you should
drop a line to info@setileague.org and see if they can point you in the
right direction, so to speak. I'm not very knowledgeable about this
stuff myself, but it sounds interesting.

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

3462. Re: Please Recommend Wireless Protocol and How-To/Tutorial

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-06 11:48:43 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2v3sfkF2h1i34U1@uni-berlin.de>
Source record: 22347
Cross-posted to:
comp.protocols.misc,comp.arch.embedded,rec.radio.amateur.digital.misc,rec.radio.amateur.homebrew,alt.radio.digital

It is simple.

Write down what is required; how you expect each side to behave in
response to each part of your protocol, and the program design is then
obvious.

For example, you mention packetisation. How do you propose to
encode your information such that the real data that you send is never
confuse with the start and stop of packets?

<usenet@pobox.com> wrote in message
news:8ded0ef5.0411022017.542f84a7@posting.google.com...
> The real challenge of the project is in developing my own wireless
> protocol to handle packetization, start and stop codes, error
> detection and correction, line coding, and perhaps collision handling.
.

3463. Re: Please Recommend Wireless Protocol and How-To/Tutorial

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-06 11:50:01 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2v3sflF2h1i34U2@uni-berlin.de>
Source record: 22346
Cross-posted to:
comp.protocols.misc,comp.arch.embedded,rec.radio.amateur.digital.misc,rec.radio.amateur.homebrew,alt.radio.digital

Sounds like there may soon be a vacancy in that chair.....

<usenet@pobox.com> wrote in message
news:8ded0ef5.0411041517.67b5c463@posting.google.com...
> .....in that I've ventured
> outside of the realm of my Professor's expertise

3464. help with matching system on delta loop antenna

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-06 14:19:13 UTC
From: Silvio <silvioylstra@hotmail.com>
Message-ID: <cmimgtrbt1@news-02.connect.com.au>
Source record: 22248

hi.........
please need help with delta loop antenna better matching system than gamma
match.............. please could any body sugest any thing or way to match a
vee quad , delta loop other than gamma match and my be supply me with
details how to assemble and fit to antenna ....gee some must no a
better way.. please help me 73s .... thanks every one
that may be able to help .... silvioylstra@hotmail.com

3465. Re: Please Recommend Wireless Protocol and How-To/Tutorial

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-06 16:59:59 UTC
From: "Murray R. Van Luyn" <vanluynm@iinet.net.au>
Message-ID: <418d012a$0$6567$5a62ac22@per-qv1-newsreader-01.iinet.net.au>
Source record: 22249
Cross-posted to:
comp.protocols.misc,comp.arch.embedded,rec.radio.amateur.digital.misc,rec.radio.amateur.homebrew,alt.radio.digital

Hi Usenet,

This is a popular search. Lots of people buy tiny RF modules and then go looking for a protocol, myself included.

I looked at a lot of stuff and concluded that I was better off, and certainly from an educational standpoint, writing my own.

I have 3/4 baked 8051 pseudocode for a HDLC with digital PLL, that various protocols can be layered over. Contact me privately if your interested in it 'as is', or if you think you might like to do some work on it with me.

Regards,
Murray R. Van Luyn.

<usenet@pobox.com> wrote in message
news:8ded0ef5.0411022017.542f84a7@posting.google.com...
> I am a student in an embedded systems design class. I am planning a
> project where I'll get two 8051-microcontroller-based development
> boards with 433 MHz FM transceivers to talk to each other. Each
> development board will be connected via RS-232 to a computer running
> terminal software. My initial goal is to be able to send some
> keystrokes back and forth between the two systems.
>
> The real challenge of the project is in developing my own wireless
> protocol to handle packetization, start and stop codes, error
> detection and correction, line coding, and perhaps collision handling.
> I am looking for a good tutorial on how to go about such a task--i.e.
> what options are available and guidelines for implementing them.
> Something on the web or a book would both be good. I was wondering if
> you might be able to make a recommendation.
>
> Additionally, if you would please recommend any existing protocols
> that would be sufficient for my application, this would be very
> helpful because: a) I can use the existing protocol as a reference
> when developing my own and b) If it turns out to be too difficult to
> develop my own, I can switch my goal to implementing the existing
> protocol.
>
> I would be very grateful for any assistance that you might be able to
> provide. Thanks so much for your help.

3466. AN762 amp from CCI

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-06 18:29:52 UTC
From: Michael <oz8agb@qrz.dk>
Message-ID: <418d1637$0$17610$d40e179e@nntp06.dk.telia.net>
Source record: 22250

Hi,

I built the AN762 amp along with 6 low pass filters with parts bought from Communication Concepts.

The amp itself (180W version) works fine and can easily produce 180W with 5W input.

Now to the problem and question:

I wanted to put it in a good solid case with the filters, a RX/TX relay (8A 240V Omron relay also bought at CCI) a manual switch for the filters and the filters.
I also found a good heat sink for the PA.

I connected all parts with short runs of RG-58, but a lot of the power seems to get lost in this system. If I'm lucky I can get 100W out. Even if I bypass the filters. Is RG58 a bad choice for the internal wirering? Is the manual switch a bad choice?
What special things should I address for optimum perfomance?

In my case the PA is placed on the back panel direcly mounted on the heat sink. I made a rectangular hole in the back for the PA board.
The input and output connectors are also on the back panel. The filters are mounted at the bottom of the box and connected to a band switch mounted on the front panel. Behind the filters and in front of the PA is the RX/TX relay cirucuit.

73
de
Michael
OZ8AGB

3467. Proteus 6 Professional, labcenter.co.uk, IAR visualSTATE v5.0.7.88, IAR Embedded.Workbench for 68HC12.V2.44A, ARM.V4.11A, Atmel.AVR.V3.20A, CR16C.V2.10A, H8.V1.53I, MCS-51.V6.10A, Mitsubishi.740.V2.16A, Mitsubishi.M32C.V2.11A, MSP430.V3.20A, NEC.V850

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-06 18:42:05 UTC
From: alfa_omega@mail.gr
Message-ID: <517a224a.0411061042.78dfbcec@posting.google.com>
Source record: 22251

Proteus 6 Professional, labcenter.co.uk, IAR visualSTATE v5.0.7.88, IAR Embedded.Workbench for 68HC12.V2.44A, ARM.V4.11A, Atmel.AVR.V3.20A, CR16C.V2.10A, H8.V1.53I, MCS-51.V6.10A, Mitsubishi.740.V2.16A, Mitsubishi.M32C.V2.11A, MSP430.V3.20A, NEC.V850.V2.31A, PIC18.V2.12A, PICmicro.V2.21A, Renesas.M16C.and.R8C.V2.12A, ZiLOG.eZ80.V1.34A, V2.2, V2.31, V2.31A, V2.31C, Makeapp V3.1A for Hitachi H8S, Makeapp V3.1A for Hitachi H8S Repack, Makeapp V3.1A for Toshiba TX, CADSTAR V6.0 - ZUKEN, Automation Studio - Circuit Design and Simulation Software, AUTOMATION STUDIO V5.0 PRO EDITION, CADENCE ORCAD 2004 - 2000, Altium P-CAD V2002, DXP SUITE V2004, WEBSPHERE EVERYPLACE MOBILE PORTAL v5.0 - ALTIUM [2 CDs], ModelSim.SE.v6.0, AutoTRAX.EDA.v3.04, Aldec.Riviera.v2004.08.1533.WinNT2kXP, Metrowerks CodeWarrior Development Studio v9.3 and ADDON, other

IAR Embedded.Workbench for 68HC12.V2.44A.Incl.Keygen
IAR Embedded.Workbench for ARM.V4.11A.Incl.Keygen
IAR Embedded.Workbench for Atmel.AVR.V3.20A.Incl.Keygen
IAR Embedded.Workbench for CR16C.V2.10A.Incl.Keygen
IAR Embedded.Workbench for H8.V1.53I.Incl.Keygen
IAR Embedded.Workbench for MCS-51.V6.10A.Incl.Keygen
IAR Embedded.Workbench for Mitsubishi.740.V2.16A.Incl.Keygen
IAR Embedded.Workbench for Mitsubishi.M32C.V2.11A.Incl.Keygen
IAR Embedded.Workbench for MSP430.V3.20A.Incl.Keygen
IAR Embedded.Workbench for NEC.V850.V2.31A.Incl.Keygen
IAR Embedded.Workbench for PIC18.V2.12A.Incl.Keygen
IAR Embedded.Workbench for PICmicro.V2.21A.Incl.Keygen
IAR Embedded.Workbench for Renesas.M16C.and.R8C.V2.12A.Incl.Keygen
IAR Embedded.Workbench for ZiLOG.eZ80.V1.34A.Incl.Keygen

---

all IAR 2001-2002

IAR Embedded Workbench V2.2, V2.31, V2.31A, V2.31C, Makeapp V3.1A for Hitachi H8S, Makeapp V3.1A for Hitachi H8S Repack, Makeapp V3.1A for Toshiba TX,

IAR Systems Embedded Workbench V2.2
IAR Systems Embedded Workbench V2.31
IAR Systems Embedded Workbench V2.31A
IAR Systems Embedded Workbench V2.31C

IAR Systems Makeapp V3.1A for Hitachi H8S
IAR Systems Makeapp V3.1A for Hitachi H8S Repack
IAR Systems Makeapp V3.1A for Toshiba TX

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week 30/2003

Proteus 6 Professional, labcenter.co.uk

CADSTAR V6.0 - ZUKEN, Automation Studio - Circuit Design and
Simulation Software, AUTOMATION STUDIO V5.0 PRO EDITION, CADENCE ORCAD
2004 - 2000, Altium P-CAD V2002, DXP SUITE V2004, WEBSPHERE EVERYPLACE
MOBILE PORTAL v5.0 - ALTIUM [2 CDs], ModelSim.SE.v6.0,
AutoTRAX.EDA.v3.04, Aldec.Riviera.v2004.08.1533.WinNT2kXP, Metrowerks
CodeWarrior Development Studio v9.3 and ADDON,

14/ 1/03 | CADSTAR V6.0 - ZUKEN

AUTOMATION STUDIO V5.0 PRO EDITION - FAMIC TECH INC CD NR 14 860

ModelSim.SE.v6.0, AutoTRAX.EDA.v3.04,
Aldec.Riviera.v2004.08.1533.WinNT2kXP, Metrowerks CodeWarrior
Development Studio v9.3 and ADDON,

P-CAD V2002 - Altium CD NR 11 286

DXP SUITE V2004 - ALTIUM 15 524

WEBSPHERE EVERYPLACE MOBILE PORTAL v5.0 - ALTIUM [2 CDs] 15 600

CADENCE SILICON PACKAGE BOARD CODESIGN V15.2 [3 CDs] CD NR 15
836

LOGIC DESIGN AND VERIFICATION V5.1 - CADENCE 14 343

PCB DESIGN STUDIO V15.1 - CADENCE [3 CDs] 14 222

CADENCE ORCAD UNISON SUITE PRO V10.0 CD NR 13 291

PCB DESIGN STUDIO V15.0 *UPDATED* - CADENCE [2 CDs] 13 002

PCB DESIGN STUDIO V15.0 - CADENCE [3 CDs] 12 656

LOGIC DESIGN AND VERIFICATION V5.0 - CADENCE 12 167

CADENCE IC DESIGN V5.0 LINUX [2 CDs] 11 713

Virtual Component Co-design v2.2 - Cadence 11 552

LOGIC DESIGN AND VERIFICATION V4.0 - CADENCE 10 701

Cadence PCB Design Studio v14.2 [3 CDs] 8777

CADENCE ORCAD UNISON SUITE.V2002 8727

Cadence LDV v3.3 7202

Cadence PCB Design Studio V 14.1 [3 CDs] 6597

Cadence PCB Design Studio v14.0 [2 CDs] 5684

Cadence OrCad v9.2 Complete Suite 4275

Cadence Allegro v13.6 4270

3468. Re: AN762 amp from CCI

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-06 19:31:48 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10oq9l0aortr9ee@corp.supernews.com>
Source record: 22252

Michael wrote:

> Hi,
>
> I built the AN762 amp along with 6 low pass filters with parts bought from
> Communication Concepts.
>
> The amp itself (180W version) works fine and can easily produce 180W with 5W
> input.
>
> Now to the problem and question:
>
> I wanted to put it in a good solid case with the filters, a RX/TX relay (8A
> 240V Omron relay also bought at CCI) a manual switch for the filters and the
> filters.
> I also found a good heat sink for the PA.
>
> I connected all parts with short runs of RG-58, but a lot of the power seems
> to get lost in this system. If I'm lucky I can get 100W out. Even if I
> bypass the filters. Is RG58 a bad choice for the internal wirering? Is the
> manual switch a bad choice?
> What special things should I address for optimum perfomance?
>
> In my case the PA is placed on the back panel direcly mounted on the heat
> sink. I made a rectangular hole in the back for the PA board.
> The input and output connectors are also on the back panel. The filters are
> mounted at the bottom of the box and connected to a band switch mounted on
> the front panel. Behind the filters and in front of the PA is the RX/TX
> relay cirucuit.
>
> 73
> de
> Michael
> OZ8AGB
>
>

Is this HF? RG-58 should be fine. RG-174 should be fine for that matter, if this is HF or even VHF. I would suspect that you either have one defective component, a poorly attached connector, or a damaged cable.

Assuming that it's linear you could just put 5W in, let it run into a solid dummy load for a while, then feel around the input path for the hot thing. If you're losing 2 watts to one component you'll be able to feel it.

If you can you may want to feed the amp it's 5W directly and see if it still gives 180W. If it were me and I was desperate I'd yank the amp out of the case, make sure it was doing 180W on the bench, then put it back in the case checking at every step. So I'd verify 180W with it just bolted in, then verify power through the filters (accepting a bit of loss), then verify power with the case's connectors, etc., until I either found the problem or had my completed amp.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

3469. Re: Please Recommend Wireless Protocol and How-To/Tutorial

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-06 21:07:29 UTC
From: usenet@pobox.com
Message-ID: <8ded0ef5.0411061307.7c3c46b4@posting.google.com>
Source record: 22253
Cross-posted to:
comp.protocols.misc,comp.arch.embedded,rec.radio.amateur.digital.misc,rec.radio.amateur.homebrew,alt.radio.digital

"Joel Kolstad" <JKolstad71HatesSpam@Yahoo.Com> wrote in message news:> I agree that a good way to start is with, e.g., XModem, since the original
> poster apparently has a 'virtual RS-232' connection between the transmitter
> and receiver going already. In fact, getting XModem or similar working
> should be sufficient for his project.
>
> However, for 'real world' applications, you need to encapsulate the data in
> a much more robust encoding scheme -- at least if you need to go 'reasonable
> distances' with 'reasonable powers.' Wireless systems typically have bit
> error rates on the order of 10^-2 (1 in 100 bits bad), which will pretty
> much destroy the ability of protocols designed for 'wired' systems (TCP/IP,
> X/Y/ZModem, etc.) to function over any reasonable distance. Implementing
> sophisticated encoding with error correction would be a good follow-up
> project for the OP.
>
> ---Joel Kolstad

Hi all,

Thanks again for all of your assistance. Can I characterize my connection as a "virtual RS-232 connection"? I do have a pair or transceivers with serial data in/data out. I haven't gotten too much information from the vendor that sold them to me, but from what he has said, I will need to produce a transmitted waveform with apx. 50% duty cycle, for which he recommends I use Manchester Encoding. He also has explained that I need to transmit a preamble (he said a square wave for about 5 ms would do) in order to allow the receiver time to stabilize before receiving data. Without the preamble, he says I'll lose the first several characters that I transmit. He also said that I'd have to choose a pattern that I won't find in my data stream to use as my start code.

I also agree with Joel (above) that I "should" have to worry about errors as a result of this being a wireless communication. (Whether I will actually experience a reasonable amount of errors if I put the transceivers right next to each other remains to be seen, but I'd like to include error detection and possibly correction as a part of my project nonetheless.)

So, given all of this, I'm thinking that any protocol I use as a reference needs to be designed for wireless communications so as to show me how all of these needs are addressed. Perhaps I might be able to use protocols like XMODEM to observe how some common things are done (i.e. packetization).

BTW, does anyone know how to figure out how large to make your packets when designing a protocol? I imagine that if you make a packet too large, you defeat the purpose of breaking up your data and increase the chance that your packet will contain a corrupted piece. On the other hand, if you make your packet too short, you lose efficiency because your packet header overhead will dominate the size of your actual data payload. Given that, how do you pick a size in between? One way to do it would be experimental--just try some sizes and see what works. Any other ideas?

Thanks.

3470. Re: AN762 amp from CCI

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-06 21:24:17 UTC
From: Michael <oz8agb@qrz.dk>
Message-ID: <418d3f1f$0$17585$d40e179e@nntp06.dk.telia.net>
Source record: 22254

Hi Tim,

Yes it is a linear PA for 1-30MHz.

I did disconnect all filters etc. and just connected input and output
directly with 2 short pieces of coax. That worked fine. 180W clean output.
I'll try out your suggestion and recheck every path and see if I find the
"bug".
Thanks!

73
Michael

"Tim Wescott" <tim@wescottnospamdesign.com> wrote in message
news:10oq9l0aortr9ee@corp.supernews.com...
> Michael wrote:
>
>> Hi,
>>
>> I built the AN762 amp along with 6 low pass filters with parts bought
>> from Communication Concepts.
>>
>> The amp itself (180W version) works fine and can easily produce 180W with
>> 5W input.
>>
>> Now to the problem and question:
>>
>> I wanted to put it in a good solid case with the filters, a RX/TX relay
>> (8A 240V Omron relay also bought at CCI) a manual switch for the filters
>> and the filters.
>> I also found a good heat sink for the PA.
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>> I connected all parts with short runs of RG-58, but a lot of the power
>> seems to get lost in this system. If I'm lucky I can get 100W out. Even
>> if I bypass the filters. Is RG58 a bad choice for the internal wirering?
>> Is the manual switch a bad choice?
>> What special things should I address for optimum perfomance?
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>> In my case the PA is placed on the back panel direcly mounted on the heat
>> sink. I made a rectangular hole in the back for the PA board.
>> The input and output connectors are also on the back panel. The filters
>> are mounted at the bottom of the box and connected to a band switch
>> mounted on the front panel. Behind the filters and in front of the PA is
>> the RX/TX relay cirucuit.
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>> Michael
>> OZ8AGB
> Is this HF? RG-58 should be fine. RG-174 should be fine for that matter,
> if this is HF or even VHF. I would suspect that you either have one
> defective component, a poorly attached connector, or a damaged cable.
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> Assuming that it's linear you could just put 5W in, let it run into a
> solid dummy load for a while, then feel around the input path for the hot
> thing. If you're losing 2 watts to one component you'll be able to feel
> it.
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> If you can you may want to feed the amp it's 5W directly and see if it
> still gives 180W. If it were me and I was desperate I'd yank the amp out
> of the case, make sure it was doing 180W on the bench, then put it back in
> the case checking at every step. So I'd verify 180W with it just bolted
> in, then verify power through the filters (accepting a bit of loss), then
> verify power with the case's connectors, etc., until I either found the
> problem or had my completed amp.
>
> --
>
> Tim Wescott
> Wescott Design Services
> http://www.wescottdesign.com

3471. Re: AN762 amp from CCI

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-06 21:24:35 UTC
From: Michael <oz8agb@qrz.dk>
Message-ID: <418d3f29$0$17589$d40e179e@nntp06.dk.telia.net>
Source record: 22255

Hi Tim,

Yes it is a linear PA for 1-30MHz.

I did disconnect all filters etc. and just connected input and output
directly with 2 short pieces of coax. That worked fine. 180W clean output.
I'll try out your suggestion and recheck every path and see if I find the
"bug".
Thanks!

73
Michael

"Tim Wescott" <tim@wescottnospamdesign.com> wrote in message
news:10oq9l0aortr9ee@corp.supernews.com...
> Michael wrote:
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>> Hi,
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>> from Communication Concepts.
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>> Now to the problem and question:
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>> I also found a good heat sink for the PA.
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>> if I bypass the filters. Is RG58 a bad choice for the internal wirering?
>> Is the manual switch a bad choice?
>> What special things should I address for optimum perfomance?
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>> mounted on the front panel. Behind the filters and in front of the PA is
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> in, then verify power through the filters (accepting a bit of loss), then
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> problem or had my completed amp.
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> --
>
> Tim Wescott
> Wescott Design Services
> http://www.wescottdesign.com

3472. Re: AN762 amp from CCI

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-06 22:44:03 UTC
From: jgboyles@aol.com
Message-ID: <20041106174403.14202.00000178@mb-m13.aol.com>
Source record: 22256

>I built the AN762 amp along with 6 low pass filters with parts bought from
>Communication Concepts.
>

Hi Michael, Just some thoughts on your problems with the AN762.

>I connected all parts with short runs of RG-58, but a lot of the power seems
>to get lost in this system. If I'm lucky I can get 100W out.
The short runs of RG-58 should not produce any noticeable loss. I would look at Tx/Rx relay and the filter bandswitch.
Another thing to consider is how you determined the power gain of the PA before and after you put it in the enclosure. Make sure all the measurement parameters (frequency ect.) are exactly the same.
Another thing to remember is that the circuit board is the only thing that has a power gain. All the cabling, switches, and relays will have some loss. If you are losing 80 watts, it is probably in one section, and it should get pretty hot. Of course the circuit board will get hot, it does in normal operation. Look for some of the stuff you added getting hot. Also does the circuit board get hotter now than it did before you enclosed it?

73 Gary N4AST

3473. Re: Please Recommend Wireless Protocol and How-To/Tutorial

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-07 02:51:55 UTC
From: john graesser <graesser@tca.net>
Message-ID: <10or35q6gjfp057@corp.supernews.com>
Source record: 22257
Cross-posted to:
comp.protocols.misc,comp.arch.embedded,rec.radio.amateur.digital.misc,rec.radio.amateur.homebrew,alt.radio.digital

<usenet@pobox.com> wrote in message
news:8ded0ef5.0411061307.7c3c46b4@posting.google.com...
> "Joel Kolstad" <JKolstad71HatesSpam@Yahoo.Com> wrote in message news:> I
agree that a good way to start is with, e.g., XModem, since the original
> > poster apparently has a 'virtual RS-232' connection between the
transmitter
> > and receiver going already. In fact, getting XModem or similar working
> > should be sufficient for his project.
> >
> > However, for 'real world' applications, you need to encapsulate the data
in
> > a much more robust encoding scheme -- at least if you need to go
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> > distances' with 'reasonable powers.' Wireless systems typically have
bit
> > error rates on the order of 10^-2 (1 in 100 bits bad), which will pretty
> > much destroy the ability of protocols designed for 'wired' systems
(TCP/IP,
> > X/Y/ZModem, etc.) to function over any reasonable distance.
Implementing
> > sophisticated encoding with error correction would be a good follow-up
> > project for the OP.
> >
> > ---Joel Kolstad
>
> Hi all,
>
> Thanks again for all of your assistance. Can I characterize my
> connection as a "virtual RS-232 connection"? I do have a pair or
> transceivers with serial data in/data out. I haven't gotten too much
> information from the vendor that sold them to me, but from what he has
> said, I will need to produce a transmitted waveform with apx. 50% duty
> cycle, for which he recommends I use Manchester Encoding. He also has
> explained that I need to transmit a preamble (he said a square wave
> for about 5 ms would do) in order to allow the receiver time to
> stabilize before receiving data. Without the preamble, he says I'll
> lose the first several characters that I transmit. He also said that
> I'd have to choose a pattern that I won't find in my data stream to
> use as my start code.
>
> I also agree with Joel (above) that I "should" have to worry about
> errors as a result of this being a wireless communication. (Whether I

> will actually experience a reasonable amount of errors if I put the
> transceivers right next to each other remains to be seen, but I'd like
> to include error detection and possibly correction as a part of my
> project nonetheless.)
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> So, given all of this, I'm thinking that any protocol I use as a
> reference needs to be designed for wireless communications so as to
> show me how all of these needs are addressed. Perhaps I might be able
> to use protocols like XMODEM to observe how some common things are
> done (i.e. packetization).
>
> BTW, does anyone know how to figure out how large to make your packets
> when designing a protocol? I imagine that if you make a packet too
> large, you defeat the purpose of breaking up your data and increase
> the chance that your packet will contain a corrupted piece. On the
> other hand, if you make your packet too short, you lose efficiency
> because your packet header overhead will dominate the size of your
> actual data payload. Given that, how do you pick a size in between?
> One way to do it would be experimental--just try some sizes and see
> what works. Any other ideas?

The zmodem protocol used back in the latter days of phone bbs's used a variable packet size. If you were getting lots of errors, it would drop packet size down till some packets got thru without an error, if later it detected that all packets were getting thru without errors, it would up the packet size to increase thruput. If it got down to minimum packet size and still had at least one error per packet it would abort the transfer. If you include some form of error correction along with the packets then you lose another 30% or so of thruput, but you can survive simple bit errors, and it takes a multiple bit error to be unrecoverable. And when I speak of errors I refer to unrecoverable errors, that the error correction couldn't fix.

Error detection is mandatory for any sort of packetized communication.

You might also check out the code used by modems around the time of v22.bis (2400 cps modems) and later. Most of them offered error detection/correction and data compression which meant the data was packetized.

3474. Help! Transformer induces hum to chassis!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-07 06:55:00 UTC
From: Prune <bobysgotguns@yahoo.com>
Message-ID: <Xns9599E9196FCA9Gormenghast@64.59.144.76>
Source record: 22258

I'm poor. So I rebuilt the core of a 16 lbs microwave oven transformer and now it's very quiet -- outside the chassis. I mounted it in the 3u power supply chassis, and the chassis resonates like crazy, at least 30 dB more noise than the transformer alone. Rubber/springs/foam didn't help much. I spent quite some time building a pneumatic vibration isolator with a pump and everything. Imagine my surprise when it turned out most of the vibration wasn't transmitted mechanically...the hum was being induced electromagnetically into the chassis! I almost cried! Repositioning didn't make much difference (more of the effect seems to come from the side with the primary winding, but orienting that side away from the vertical walls means having the core horizontal, which makes the hum worse; standing the transformer on its narrowest side doesn't fit in the chassis). All my testing was done with no load as the salt water resistor boiled too quickly and I took it apart. Would it get better/worse/same when it's loaded? And what can I do to deal with the issue, in terms of shielding or anything else? I swear I'm going to go crazy trying to figure this out.

3475. Re: AN762 amp from CCI

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-07 10:36:42 UTC
From: Joe Rocci <joe@roccis.com>
Message-ID: <_Umjd.1105$Tz3.178@trndny08>
Source record: 22259

If the filter bank is on the rear panel and the filter switch is on the front panel, it sure sounds to me like that long, circuitous path could be the problem. I'd try eliminating the filter switching and see if the performance returns to normal. Also be sure that whatever surface the connectors are mounted on have a very good and short ground path back to appropriate place on the board.

Joe
W3JDR

Michael <oz8agb@qrz.dk> wrote in message
news:418d1637$0$17610$d40e179e@nntp06.dk.telia.net...
> Hi,
>
> I built the AN762 amp along with 6 low pass filters with parts bought from
> Communication Concepts.
>
> The amp itself (180W version) works fine and can easily produce 180W with
5W
> input.
>
> Now to the problem and question:
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> I wanted to put it in a good solid case with the filters, a RX/TX relay
(8A
> 240V Omron relay also bought at CCI) a manual switch for the filters and
the
> filters.
> I also found a good heat sink for the PA.
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> I connected all parts with short runs of RG-58, but a lot of the power
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> to get lost in this system. If I'm lucky I can get 100W out. Even if I
> bypass the filters. Is RG58 a bad choice for the internal wirering? Is the
> manual switch a bad choice?
> What special things should I address for optimum perfomance?
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> In my case the PA is placed on the back panel direcly mounted on the heat
> sink. I made a rectangular hole in the back for the PA board.
> The input and output connectors are also on the back panel. The filters
are
> mounted at the bottom of the box and connected to a band switch mounted on
> the front panel. Behind the filters and in front of the PA is the RX/TX
> relay cirucuit.
>

> 73
> de
> Michael
> OZ8AGB
>
>

3476. Variable Capacitor Supplier

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-07 11:16:19 UTC
From: S C <cromie@onetel.com>
Message-ID: <418e0484@212.67.96.135>
Source record: 22260

I am in the process of designing an ATU yet am having difficulty in locating a company who can supply a suitable Variable Capacitor.

At the moment the only ones I seem to find are trimming capacitors and I require an item which is somwhat larger than that - E.g in the region of about 680pF.

Any suggestions as to a suitable supplier would be grately appreciated.

Failing this if anyone knows of a circuit diagram available on the net which may be constructed from components more readily available then I am more than happy to hear from you.

Many Thanks.

3477. Re: Variable Capacitor Supplier

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-07 13:55:59 UTC
From: w9gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <OPpjd.56925$HA.18528@attbi_s01>
Source record: 22261

There are several US manufacturers still in business (a google search will turn up at least 3), one option is Oren Elliott Products (OEP) in Ohio.
http://orenelliottproducts.com/index.html

OEP was the original supplier for many Collins, Drake and Heath capacitors (and planetary drives).

Oren Elliott Products, Inc. is the largest US domestic manufacturer of air-dielectric variable capacitors.
Producing capacitors since 1925, the OEP Plant I was first known as American Steel Packaging Company and then as All Star Products. In those early years, their applications and major products were almost exclusively focused on the broadcast and short-wave radio industry (which was a huge market in late 1920s and 1930s - Hammerlund, Hallicrafters, Zenith, etc.).
During World War II, ASP supplied the Allies with 3500 capacitors per day, and by the end of the war the company was the world's largest producer of air trimmers.
In 1983, Oren Elliott Products Inc.(name change from ASP to OEM) was created and expanded into new facilities (Plant II) to include CNC lathes, CNC vertical machining centers, CNC and conventional Swiss screw machines, and all of the support equipment necessary to enable OEP not only to produce all of the machined subcomponents for their capacitors.

Another option (UK based) is Jackson Brothers which was founded in 1923 to manufacture variable capacitors and accessories such as tuning drives and dials. Today, distribution and production facilities are owned by the Mainline Electronics Group.
http://www.mainlinegroup.co.uk/jacksonbrothers/

For Jackson Brothers orders:
Mainline Electronics
Unit 1A Cutters Close
Coventry Road
Narborough
Leicester LE19 2FZ
UK
Tel: (+44) 116 286 5373
Fax: (+44) 116 286 7797
Email: anona@mainlinegroup.co.uk

==========
w9gb

"S C" <cromie@onetel.com> wrote in message news:418e0484@212.67.96.135...
>I am in the process of designing an ATU yet am having difficulty in
>locating

> a company who can supply a suitable Variable Capacitor.
>
> At the moment the only ones I seem to find are trimming capacitors and I
> require an item which is somwhat larger than that - E.g in the region of
> about 680pF.
>
> Any suggestions as to a suitable supplier would be grately appreciated.
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> Failing this if anyone knows of a circuit diagram available on the net
> which
> may be constructed from components more readily available then I am more
> than happy to hear from you.
>
> Many Thanks.
>
>

3478. Re: Help! Transformer induces hum to chassis!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-07 13:59:35 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <9haso0to1d3kockafkdh32v4llle81pamn@4ax.com>
Source record: 22262

On Sun, 07 Nov 2004 06:55:00 GMT, Prune <bobysgotguns@yahoo.com>
wrote:

>I'm poor. So I rebuilt the core of a 16 lbs microwave oven transformer and
>now it's very quiet -- outside the chassis. I mounted it in the 3u power
>supply chassis, and the chassis resonates like crazy, at least 30 dB more
>noise than the transformer alone. Rubber/springs/foam didn't help much. I
>spent quite some time building a pneumatic vibration isolator with a pump
>and everything. Imagine my surprise when it turned out most of the
>vibration wasn't transmitted mechanically...the hum was being induced
>electromagnetically into the chassis! I almost cried! Repositioning
>didn't make much difference (more of the effect seems to come from the side
>with the primary winding, but orienting that side away from the vertical
>walls means having the core horizontal, which makes the hum worse; standing
>the transformer on its narrowest side doesn't fit in the chassis). All my
>testing was done with no load as the salt water resistor boiled too quickly
>and I took it apart. Would it get better/worse/same when it's loaded? And
>what can I do to deal with the issue, in terms of shielding or anything
>else? I swear I'm going to go crazy trying to figure this out.

Learn to love hum. Let's face it: it's not as if your oven's going to
be running 24/7!

--

"What is now proved was once only imagin'd." - William Blake, 1793.

3479. Re: Variable Capacitor Supplier

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-07 15:40:17 UTC
From: RCM <rkmr15203@yahoo.com>
Message-ID: <418E41E1.20604@yahoo.com>
Source record: 22267

> http://orenelliottproducts.com/index.html

S C wrote:
> I am in the process of designing an ATU yet am having difficulty in locating
> a company who can supply a suitable Variable Capacitor.
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> may be constructed from components more readily available then I am more
> than happy to hear from you.
>
> Many Thanks.
>
>

3480. Re: Variable Capacitor Supplier

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-07 16:36:21 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2v71dnF2iqqf5U1@uni-berlin.de>
Source record: 22264

A little ally-bashing and you have your own capacitor to your
own specifications! A trivial matter for a _REAL_ Radio Ham; perhaps
more difficult for a CBer who buys his station from the shops and
takes it back to be mended?

"S C" <cromie@onetel.com> wrote in message news:418e0484@212.67.96.135...
> I am in the process of designing an ATU yet am having difficulty in
locating
> a company who can supply a suitable Variable Capacitor.

3481. Re: Help! Transformer induces hum to chassis!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-07 16:43:44 UTC
From: John Popelish <jpopelish@rica.net>
Message-ID: <418E50C0.FFFA7525@rica.net>
Source record: 22263

Prune wrote:
>
> I'm poor. So I rebuilt the core of a 16 lbs microwave oven transformer and
> now it's very quiet -- outside the chassis. I mounted it in the 3u power
> supply chassis, and the chassis resonates like crazy, at least 30 dB more
> noise than the transformer alone. Rubber/springs/foam didn't help much. I
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> walls means having the core horizontal, which makes the hum worse; standing
> the transformer on its narrowest side doesn't fit in the chassis). All my
> testing was done with no load as the salt water resistor boiled too quickly
> and I took it apart. Would it get better/worse/same when it's loaded? And
> what can I do to deal with the issue, in terms of shielding or anything
> else? I swear I'm going to go crazy trying to figure this out.

Microwave oven transformers operate with parts of the core very nearly
saturated during parts of the cycle, so they spray magnetic fields all
over the place. Any iron in their neighborhood will be bumped around
like a vibrator. Does your unit still have the magnetic shunt between
primary and secondary? Is the primary the same number of turns it
was, originally? Adding more primary turns (lowering the volts per
turn) will help. Wrapping a thick band of copper around the core in
the direction the turns wrap (an eddy current shield) may help contain
the stray fields a bit, also, at the cost of more waste heat and less
efficient heat removal.

--
John Popelish

3482. Re: Variable Capacitor Supplier

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-07 16:46:19 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10oskajgjh0m1ba@corp.supernews.com>
Source record: 22265

S C wrote:

> I am in the process of designing an ATU yet am having difficulty in locating
> a company who can supply a suitable Variable Capacitor.
>
> At the moment the only ones I seem to find are trimming capacitors and I
> require an item which is somwhat larger than that - E.g in the region of
> about 680pF.
>
> Any suggestions as to a suitable supplier would be grately appreciated.
>
> Failing this if anyone knows of a circuit diagram available on the net which
> may be constructed from components more readily available then I am more
> than happy to hear from you.
>
> Many Thanks.
>
>

* Hamfests
* Surplus Sales of Nebraska
* MFJ (I think -- or maybe it's their roller inductors)
* Antique Electronics Supply

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

3483. Re: Help! Transformer induces hum to chassis!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-07 16:48:51 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10oskfbmengel9a@corp.supernews.com>
Source record: 22266

Prune wrote:

> I'm poor. So I rebuilt the core of a 16 lbs microwave oven transformer and
> now it's very quiet -- outside the chassis. I mounted it in the 3u power
> supply chassis, and the chassis resonates like crazy, at least 30 dB more
> noise than the transformer alone. Rubber/springs/foam didn't help much. I
> spent quite some time building a pneumatic vibration isolator with a pump
> and everything. Imagine my surprise when it turned out most of the
> vibration wasn't transmitted mechanically...the hum was being induced
> electromagnetically into the chassis! I almost cried! Repositioning
> didn't make much difference (more of the effect seems to come from the side
> with the primary winding, but orienting that side away from the vertical
> walls means having the core horizontal, which makes the hum worse; standing
> the transformer on its narrowest side doesn't fit in the chassis). All my
> testing was done with no load as the salt water resistor boiled too quickly
> and I took it apart. Would it get better/worse/same when it's loaded? And
> what can I do to deal with the issue, in terms of shielding or anything
> else? I swear I'm going to go crazy trying to figure this out.

You could try reinforcing the chassis with some 1/2 inch aluminum angle
bolted or riveted across a long span of metal. You won't change the
forces being exerted on the chassis, but you may move the resonant
frequency up enough so it doesn't get much excitation.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

3484. Re: AN762 amp from CCI

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-07 19:19:11 UTC
From: Michael <oz8agb@qrz.dk>
Message-ID: <418e733a$0$17571$d40e179e@nntp06.dk.telia.net>
Source record: 22268

Thank you all!

I think I had a bad coax. During my bug finding I changed a couple of cables
and now 180W clean on all bands.

Thanks again!

Vy 73
de
Michael
OZ8AGB

"Joe Rocci" <joe@roccis.com> wrote in message
news:_Umjd.1105$Tz3.178@trndny08...
> If the filter bank is on the rear panel and the filter switch is on the
> front panel, it sure sounds to me like that long, circuitous path could be
> the problem. I'd try eliminating the filter switching and see if the
> performance returns to normal. Also be sure that whatever surface the
> connectors are mounted on have a very good and short ground path back to
> appropriate place on the board.
>
> Joe
> W3JDR
>
>
> Michael <oz8agb@qrz.dk> wrote in message
> news:418d1637$0$17610$d40e179e@nntp06.dk.telia.net...
>> Hi,
>>
>> I built the AN762 amp along with 6 low pass filters with parts bought
>> from
>> Communication Concepts.
>>
>> The amp itself (180W version) works fine and can easily produce 180W with
> 5W
>> input.
>>
>> Now to the problem and question:
>>
>> I wanted to put it in a good solid case with the filters, a RX/TX relay
> (8A
>> 240V Omron relay also bought at CCI) a manual switch for the filters and
> the
>> filters.
>> I also found a good heat sink for the PA.

>>
>> I connected all parts with short runs of RG-58, but a lot of the power
> seems
>> to get lost in this system. If I'm lucky I can get 100W out. Even if I
>> bypass the filters. Is RG58 a bad choice for the internal wirering? Is
>> the
>> manual switch a bad choice?
>> What special things should I address for optimum perfomance?
>>
>> In my case the PA is placed on the back panel direcly mounted on the heat
>> sink. I made a rectangular hole in the back for the PA board.
>> The input and output connectors are also on the back panel. The filters
> are
>> mounted at the bottom of the box and connected to a band switch mounted
>> on
>> the front panel. Behind the filters and in front of the PA is the RX/TX
>> relay cirucuit.
>>
>> 73
>> de
>> Michael
>> OZ8AGB
>>
>>
>
>

3485. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____ egedduqy

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-07 19:54:55 UTC
From: Renee <Anon@anon>
Message-ID: <cmlugl$374$0@pita.alt.net>
Source record: 22269
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

Mister Kerry...the election is over. It is time for you and Bruce Springsteen to move on.

<Victim_of_American_Stupidity@ivemrybi.fr> wrote in message news:MPG.17f4ab9df94c@NEWS.GRADWELL.NET...
You blithering idiots! You re-elected that imbecile George Bush as your President.
He's a complete moron and so are most of you!
-
Don't you care what the rest of the world thinks of you? Don't you care what impact
American foreign policy has on the rest of the planet? Does Iraq look like a success
to anyone? Doesn't it bother you that he's alienated every friend you have?
What were you thinking???
-
Prior to this, it was American policy and the American government that was so universally
hated around the world. Now it's going to be 'Americans' we hate. More sympathy
for Bin Laden... More attacks on American institutions... More isolation. How blind
can you dumb rednecks in middle-America be, not to see this?
-
If you get hit again, or your economy goes into a deep depression, the American
people will be getting exactly what they deserve!
-
<back turned>
-
-
-
-
-
-
[Ignore what follows]
It might dream difficult pitchers, do you believe them? While
games globally climb lemons, the candles often wander near the
humble plates. Are you noisy, I mean, talking under worthwhile
jackets? He can smell loudly if Cathy's pool isn't ugly. How doesn't
Afif grasp frantically?

What Corinne's elder carpenter plays, Courtney excuses behind light, short ladders. She'd rather call simply than depart with Johnny's dirty paper. When does Ghassan move so regularly, whenever William orders the open fork very locally? Nowadays, it solves a lentil too abysmal below her poor corner. He may truly promise beside Hussein when the tired eggs recollect before the clean square. There Georgette will expect the shoe, and if Rickie strongly hates it too, the potter will change against the younger window.

Waleed, still dying, learns almost totally, as the cobbler fears with their film. She wants to explain sticky jugs for Alhadin's hall. Until Al lives the boats eerily, Jim won't seek any lost doorways. My filthy draper won't attempt before I cook it. It should lift sadly, unless Murray looks dusts to Henry's pickle. Try shouting the night's fat cloud and Nelly will laugh you!

Get your partly burning shirt for my fire. Just tasting inside a envelope around the winter is too lazy for Mhammed to like it.

3486. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____ egedduqy

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-07 20:38:44 UTC
From: news <w3jxp@adelphia.net>
Message-ID: <6Nqdnb976pxJGhPcRVn-gQ@adelphia.com>
Source record: 22270
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

Don't blame me, I didn't vote for him either time. The only hope is America is a big country and he may not be able to mess it up too bad in the next 4 years

--
John Passaneau, W3JXP
State College, PA

"Renee" <Anon@anon> wrote in message news:cmlugl$374$0@pita.alt.net...
>
> Mister Kerry...the election is over. It is time for you and Bruce
> Springsteen to move on.
>
> <Victim_of_American_Stupidity@ivemrybi.fr> wrote in message
> news:MPG.17f4ab9df94c@NEWS.GRADWELL.NET...
> You blithering idiots! You re-elected that imbecile George Bush as your
> President.
> He's a complete moron and so are most of you!
> -
> Don't you care what the rest of the world thinks of you? Don't you care
> what
> impact
> American foreign policy has on the rest of the planet? Does Iraq look
> like
> a success
> to anyone? Doesn't it bother you that he's alienated every friend you
> have?
> What were you thinking???
> -
> Prior to this, it was American policy and the American government that was
> so universally
> hated around the world. Now it's going to be 'Americans' we hate. More
> sympathy
> for Bin Laden... More attacks on American institutions... More isolation.
> How blind
> can you dumb rednecks in middle-America be, not to see this?
> -
> If you get hit again, or your economy goes into a deep depression, the
> American
> people will be getting exactly what they deserve!
> -
> <back turned>
> -

> -
> -
> -
> -
> -
> [Ignore what follows]
> It might dream difficult pitchers, do you believe them? While
> games globally climb lemons, the candles often wander near the
> humble plates. Are you noisy, I mean, talking under worthwhile
> jackets? He can smell loudly if Cathy's pool isn't ugly. How doesn't
> Afif grasp frantically?
>
> What Corinne's elder carpenter plays, Courtney excuses behind
> light, short ladders. She'd rather call simply than depart with
> Johnny's dirty paper. When does Ghassan move so regularly, whenever
> William orders the open fork very locally? Nowadays, it solves a
> lentil too abysmal below her poor corner. He may truly promise
> beside Hussein when the tired eggs recollect before the clean
> square. There Georgette will expect the shoe, and if Rickie
> strongly hates it too, the potter will change against the younger
> window.
>
> Waleed, still dying, learns almost totally, as the cobbler fears
> with their film. She wants to explain sticky jugs for Alhadin's
> hall. Until Al lives the boats eerily, Jim won't seek any lost
> doorways. My filthy draper won't attempt before I cook it.
> It should lift sadly, unless Murray looks dusts to Henry's pickle. Try
> shouting the night's fat cloud and Nelly will laugh you!
>
> Get your partly burning shirt for my fire. Just tasting inside a
> envelope around the winter is too lazy for Mhammed to like it.
>
>
>
>

3487. Re: Variable Capacitor Supplier

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-07 21:26:10 UTC
From: averyfineman@aol.com
Message-ID: <20041107162610.06386.00000027@mb-m22.aol.com>
Source record: 22271

In article <418e0484@212.67.96.135>, "S C" <cromie@onetel.com> writes:

>I am in the process of designing an ATU yet am having difficulty in locating
>a company who can supply a suitable Variable Capacitor.
>
>At the moment the only ones I seem to find are trimming capacitors and I
>require an item which is somwhat larger than that - E.g in the region of
>about 680pF.
>
>Any suggestions as to a suitable supplier would be grately appreciated.

Access the Ocean State Electronics website at www.oselectronics.com
and you will find a number of variable capacitors (two pages worth in
their printed catalog). Their VC-250 and VC-2502 models are good
for just over 3 KV voltage breakdown. Quarter-inch shafts, almost
10 1/2 inches long. Inexpensive, no. Price is $70 and $80,
respectively.

Smaller (lower voltage breakdown) single to multi-gang units are
available including a 4-gang which can be paralleled to get
800 pFd maximum.

Ocean State also has a number of hardware components for
rotary components from shaft couplers through panel bearings
through flexible shafts and on into vernier reduction drives.

LenAnderson@ieee.org

3488. Re: Variable Capacitor Supplier

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-07 22:40:46 UTC
From: Brian - KB9BVN <kb9bvn@arrl.net>
Message-ID: <Ovxjd.8241$O11.5353@newsread3.news.pas.earthlink.net>
Source record: 22272

I have bought many many items from Ocean State and I have never been let down.

I have several of their dual gang 365pf air variables here for monkeying with crystal receivers and the like. Put them in parallel and add a series gimic cap and you could be at 680pf pretty quickly.

(730 * X) / (730+X) = 680
(730 * X) = 680 * (730 + X)
(730 * X) = (680 * 730) + (680 * X)
(730 * X) = 496400 + (680 * X)
(730 * X) - (680 * X) = 496400
50 * X = 496400
X = 496400/50
X = 9928pf

So go with a .010 uF cap in series and you'll be cooking with gas.....if I did my math right.

73 de KB9BVN

"Avery Fineman" <averyfineman@aol.com> wrote in message news:20041107162610.06386.00000027@mb-m22.aol.com...
> In article <418e0484@212.67.96.135>, "S C" <cromie@onetel.com> writes:
>
> >I am in the process of designing an ATU yet am having difficulty in locating
> >a company who can supply a suitable Variable Capacitor.
> >
> >At the moment the only ones I seem to find are trimming capacitors and I
> >require an item which is somwhat larger than that - E.g in the region of
> >about 680pF.
> >
> >Any suggestions as to a suitable supplier would be grately appreciated.
>
> Access the Ocean State Electronics website at www.oselectronics.com
> and you will find a number of variable capacitors (two pages worth in
> their printed catalog). Their VC-250 and VC-2502 models are good
> for just over 3 KV voltage breakdown. Quarter-inch shafts, almost
> 10 1/2 inches long. Inexpensive, no. Price is $70 and $80,
> respectively.
>
> Smaller (lower voltage breakdown) single to multi-gang units are
> available including a 4-gang which can be paralleled to get
> 800 pFd maximum.
>

> Ocean State also has a number of hardware components for
> rotary components from shaft couplers through panel bearings
> through flexible shafts and on into vernier reduction drives.
>
> LenAnderson@ieee.org

3489. Re: DDS VFO plans

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-07 22:51:19 UTC
From: Brian - KB9BVN <kb9bvn@arrl.net>
Message-ID: <HFxjd.8254$O11.2755@newsread3.news.pas.earthlink.net>
Source record: 22273

The AmQRP club has a new DDS VFO kit available.

See http://www.amqrp.org

I think they just added it a few days ago.

I've been very happy with all the kits I have bought from AmQRP.

73 de KB9BVN

"VE3ELQ" <streamliner@aol.com> wrote in message
news:4184fa7c.91406335@usenet.magma.ca...
> Just acquired a Small Wonder Labs "White Mountain 75" QRP SSB
> tranceiver. It works quite well as designed but would like to add a
> DDS VFO with LCD frequency readout and re-package it all mainly for
> PSK use. Looking for plans with PCB patterns and any hex code for a
> suitable DDS VFO, or alternatively a VCO stabilizer with freq readout.
> Googling turned up a few articles but not a package that I can build
> myself from scratch not a kit job. Any pointers greatly appreciated.
>
> VE3ELQ Nigel In Embrun Ontario

3490. Re: Help! Transformer induces hum to chassis!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-08 00:24:30 UTC
From: Prune <bobysgotguns@yahoo.com>
Message-ID: <Xns959AA6EC64C94Gormenghast@64.59.144.76>
Source record: 22274

It's not mounted in a microwave; it's being bridge rectified into a CLCRC filter for plasma supply. I get 3 kV DC unloaded. I need to have it in a chassis as otherwise it makes too much stray interference.
I was thinking of mu-metal foil but those are too thin and would probably saturate and be ineffective. Using a thick shielding on the other hand means the shielding will be rigid and buzz instead of the chassis, plus it presents a cooling problem. I've seen transformers where only the exposed windings are shielded, with the outer part of the core exposed. Maybe that will provide enough cooling. I belive they fill those with epoxy for improved thermal exchange. I need to pull 350-400 mA DC and the chassis has a fan.

> Microwave oven transformers operate with parts of the core very nearly
> saturated during parts of the cycle, so they spray magnetic fields all
> over the place. Any iron in their neighborhood will be bumped around
> like a vibrator. Does your unit still have the magnetic shunt between
> primary and secondary? Is the primary the same number of turns it
> was, originally? Adding more primary turns (lowering the volts per
> turn) will help. Wrapping a thick band of copper around the core in
> the direction the turns wrap (an eddy current shield) may help contain
> the stray fields a bit, also, at the cost of more waste heat and less
> efficient heat removal.
>

3491. Re: Looking to buy: MSA-1023 wideband amp MMIC

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-08 09:14:57 UTC
From: samsvl@nlr.nl
Message-ID: <Xns959B6843180D0samsvlnlrnl@137.17.128.14>
Source record: 22275
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.repair

billb@eskimo.com (William J. Beaty) wrote in
news:2251b4e6.0411051259.431b21ad@posting.google.com:

> MSA-1023 2.5GHz 27dBm amplifiers were discontinued by HP/Agilent
> a few years ago and don't seem to be available anywhere. Well,
> I can get them from Hong Kong if I want to buy 200 of the things.
> Does anyone here have two or three that they'd be willing to part
> with? ...or know any likely parts sources? I've tried the usual
> hobbyist places, but I'm not that familiar with microwave ham
> suppliers. This is for repair of NMR research equipment at work.
> (The big supermagnets in liquid helium are fun, but maintaining
> European RF equipment is sometimes a pain.)
>
>
>
> ((((((((((((((((((((((((((o)))))))))))))))))))))))))
> William J. Beaty Research Engineer
> beaty@chem.washington.edu UW Chem Dept, Bagley Hall RM74
> billb@eskimo.com Box 351700, Seattle, WA 98195-1700
> ph206-543-6195 http//staff.washington.edu/wbeaty/

AFAK, Mini Circuits makes equivalents.

Sam (from Europe ;-))

3492. FA: 2 Watt FM Stereo Broadcast LCD Digital PLL Transmitter

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-08 10:47:09 UTC
From: righteous-jude <nospam@noreply.net>
Message-ID: <nospam-57A19D.03470908112004@comcast.dca.giganews.com>
Source record: 22276

Ebay item #: 5730774971

Auction Ends: Nov-14-04 19:13:56 PST

Direct link:

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=5730774971

My Ebay Feedback rating is 100% positive.

Ebay user ID: righteous-jude

I'm selling a FM Stereo transmitter which is well-known as being the best transmitter you can get for the money. It is fully assembled and not a kit. You'd have to buy a commercial brand FM exciter (such as a Harris) to exceed the specs of this unit. On virtually all FM receivers you would not hear the difference.

You could hook up and transmit any sound source you want, such as:

1. The sound output directly from your computer (to play MP3's) using iTunes or any software you like.

2. Directly connect an iPod, CD Player, tape deck, etc. right to the transmitter.

3. Use a professional mixer board. A decent Behringer UB802 Mixer is only $49. Then you could mix and cross-fade between two different stereo sources LIVE. Add a decent microphone ($19) so you can talk and people won't know you aren't a commercial station until they realize "Hey, why aren't there any advertisements?"

This FM transmitter is DIGITAL (not analog) and can equal the sound of commercial FM stations. It can transmit anywhere between 88-108 MHz. It outperforms ANY of the Ramsey or other so-called "kit" transmitters, including the "export" version of the FM-100B which Ramsey sells for $429.99 - which is WAY more than the cost of the transmitter I'm selling.

Depending on the quality of the antenna you connect to it and how high up in the air it is, it is possible to get about a 1.5 mile range using a simple homemade antenna, or over 5 miles of range with a $100 pre-made roof-mounted antenna.

This transmitter has a filtered RF output which means it puts out a clean signal. RF filtering is important to avoid interfering with other FM stations, or if you intend to add an RF Power Amplifier to increase your range. Most other low cost FM transmitters have bad RF harmonic supppression which means they cause a lot of interference to TV's and

radios in your neighborhood, which will attract attention to you from people like Cable TV technicians (something you definitely want to avoid).

I won't list all the details here, you can learn them all by going to http://www.Ebay.com and entering item # 5730774971 using Ebay's "Search" feature. It will be available for the next 7 days.

Here's a link for info about a good, affordable audio mixer:

http://www.musiciansfriend.com/srs7/g=rec/search/detail/base_pid/631238/

And lastly a good inexpensive microphone:

http://www.musiciansfriend.com/srs7/g=live/search/detail/base_pid/270490/

You'll also need a mic cable:

http://www.musiciansfriend.com/srs7/g=live/search/detail/base_pid/332001/

A suitable 10-foot XLR mic cable is $10.

http://www.musiciansfriend.com is a good, reliable and affordable Internet seller of music-related gear. If there is one located in your area, Guitar Center also carries this gear.

To avoid unprofessional noise while talking, don't hold your microphone, put it on a desk stand. The best deal for this item is, believe it or not, the Radio Shack model 33-370 for only $7.99.

Peace,

righteous-jude

3493. Re: FA: 2 Watt FM Stereo Broadcast LCD Digital PLL Transmitter

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-08 13:49:47 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <a9uuo01amq7s5fj6sf19kgqo41c098bsfd@4ax.com>
Source record: 22277

On Mon, 08 Nov 2004 03:47:09 -0700, righteous-jude
<nospam@noreply.net> wrote:

>Ebay item #: 5730774971
>
>Auction Ends: Nov-14-04 19:13:56 PST
>
>Direct link:
>
>http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=5730774971
>
>
>Here's a link for info about a good, affordable audio mixer:
>
>http://www.musiciansfriend.com/srs7/g=rec/search/detail/base_pid/631238/
>
>And lastly a good inexpensive microphone:
>
>http://www.musiciansfriend.com/srs7/g=live/search/detail/base_pid/270490/
>
>You'll also need a mic cable:
>
>http://www.musiciansfriend.com/srs7/g=live/search/detail/base_pid/332001/
>
>A suitable 10-foot XLR mic cable is $10.

Sorry, I can't seem to find a link for the licence to use it.
--

"What is now proved was once only imagin'd." - William Blake, 1793.

3494. ARRL Handbook

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-08 14:08:52 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <advuo09a5d59d73dg1igie1qe4u82hb6sn@4ax.com>
Source record: 22278

Hi all,

When was the Handbook last produced in hardback? I want to try to buy
the last h/back edition as the paperback one sucks.

Thanks,

p.
--

"What is now proved was once only imagin'd." - William Blake, 1793.

3495. Re: ARRL Handbook

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-08 16:02:59 UTC
From: Leon Heller <leon_heller@hotmail.com>
Message-ID: <418f98b4$0$29084$cc9e4d1f@news-text.dial.pipex.com>
Source record: 22279

"Paul Burridge" <pb@notthisbit.osiris1.co.uk> wrote in message
news:advuo09a5d59d73dg1igie1qe4u82hb6sn@4ax.com...
> Hi all,
>
> When was the Handbook last produced in hardback? I want to try to buy
> the last h/back edition as the paperback one sucks.

Why not buy the current edition and get it bound by a bookbinder. It'll be
expensive but it'll last for years. 8-)

73, Leon
--
Leon Heller, G1HSM
http://www.geocities.com/leon_heller

3496. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____ egedduqy

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-08 22:38:47 UTC
From: spam.for.the@buerotiger.de
Message-ID: <2vaarnF2is4snU3@uni-berlin.de>
Source record: 22280
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

In rec.radio.amateur.dx Walt Davidson <g3nyy@despammed.com> wrote:
> On Sun, 7 Nov 2004 15:38:44 -0500, "news" <w3jxp@adelphia.net> wrote:
>
> >Don't blame me, I didn't vote for him either time. The only hope is America
> >is a big country and he may not be able to mess it up too bad in the next 4
> >years
>
> We are not too concerned if he messes up America.
>
> It's his messing up of the rest of the world that we're concerned
> about.

http://www.newamericancentury.org/RebuildingAmericasDefenses.pdf
http://www.fas.org/irp/threat/nssg.pdf

The PNAC is a really cool club.

Peter Lemken
Berlin

--
Toleranz, das war doch diese resultierende Verhaltensweise, wenn man sich
zwischen Abscheu und Mitleid nicht entscheiden kann.

(Andreas Kroschel in de.alt.talk.unmut)

3497. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____ egedduqy

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-08 23:38:51 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <gq00p05i5p8vchnf27pqfjbgsab0bm8ieq@4ax.com>
Source record: 22281
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

On Sun, 7 Nov 2004 12:21:36 GMT,
Victim_of_American_Stupidity@ivemrybi.fr wrote:

>You blithering idiots! You re-elected that imbecile George Bush as your President.
>Heï¿½s a complete moron and so are most of you!

Are you *really* posting from france?? No one with any sense gives a
sh*t what the french think about anything. Now piss off.
--

"What is now proved was once only imagin'd." - William Blake, 1793.

3498. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____ egedduqy

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-09 00:30:15 UTC
From: news <w3jxp@adelphia.net>
Message-ID: <j56dnS-5Sa8Kkg3cRVn-tg@adelphia.com>
Source record: 22282
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

Well I don't live in the rest of the world, I live here so what happens to the rest of the world is only of passing interest. The damage he's doing right here is what worries me.

John Passaneau
W3JXP

"Walt Davidson" <g3nyy@despammed.com> wrote in message news:m4fuo014goj7nlmlm14dp9u9clttjtne57@4ax.com...
> On Sun, 7 Nov 2004 15:38:44 -0500, "news" <w3jxp@adelphia.net> wrote:
>
>>Don't blame me, I didn't vote for him either time. The only hope is
>>America
>>is a big country and he may not be able to mess it up too bad in the next
>>4
>>years
>
> We are not too concerned if he messes up America.
>
> It's his messing up of the rest of the world that we're concerned
> about.
>
> 73 de G3NYY
>
> --
> Walt Davidson Email: g3nyy @despammed.com

3499. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____ egedduqy

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-09 00:40:48 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10p04g6c92fr01c@corp.supernews.com>
Source record: 22283
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

Paul Burridge wrote:

> On Sun, 7 Nov 2004 12:21:36 GMT,
> Victim_of_American_Stupidity@ivemrybi.fr wrote:
>
>
>>You blithering idiots! You re-elected that imbecile George Bush as your President.
>>Heï¿½s a complete moron and so are most of you!
>
>
> Are you *really* posting from france?? No one with any sense gives a
> sh*t what the french think about anything. Now piss off.

In Rita May Brown's book "Six of One" the two sisters with the intense
rivalry are know as "England and France" by relatives. Gee, I wonder why?

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

3500. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____ egedduqy

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-09 01:44:10 UTC
From: user@domain.invalid
Message-ID: <41902138.1090609@domain.invalid>
Source record: 22284
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

Mr Paul Burridge Dumbass.....

Paul Burridge wrote:
> On Sun, 7 Nov 2004 12:21:36 GMT,
> Victim_of_American_Stupidity@ivemrybi.fr wrote:
>
>
>>You blithering idiots! You re-elected that imbecile George Bush as your President.
>>Heï¿½s a complete moron and so are most of you!
>
>
> Are you *really* posting from france?? No one with any sense gives a
> sh*t what the french think about anything. Now piss off.

3501. Want TC9174F IC

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-09 02:38:44 UTC
From: DOUGLAS SNOWDEN <SNOWDEN@peoplepc.com>
Message-ID: <U4Wjd.9572$Gm6.7302@newsread3.news.atl.earthlink.net>
Source record: 22285
Cross-posted to: rec.radio.swap,rec.radio.amateur.homebrew

This is a serial-parallel convertor and is a surface mount
IC. I need it to repair a TS450.

Doug N4IJ

3502. Re: Help! Transformer induces hum to chassis!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-09 04:57:16 UTC
From: Jim Adney <jadney@vwtype3.org>
Message-ID: <oei0p0h6u4vluvm568gadf3vtbqvhdt5vo@4ax.com>
Source record: 22286

On Sun, 07 Nov 2004 11:43:44 -0500 John Popelish <jpopelish@rica.net>
wrote:

>Is the primary the same number of turns it
>was, originally? Adding more primary turns (lowering the volts per
>turn) will help. Wrapping a thick band of copper around the core in
>the direction the turns wrap (an eddy current shield) may help contain
>the stray fields a bit, also, at the cost of more waste heat and less
>efficient heat removal.

These are your only 2 reasonable solutions.

-

Jim Adney jadney@vwtype3.org
Madison, WI 53711 USA

3503. Re: Help! Transformer induces hum to chassis!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-09 06:24:21 UTC
From: Prune <bobysgotguns@yahoo.com>
Message-ID: <Xns959BE3ED43A70Gormenghast@64.59.144.76>
Source record: 22287

> These are your only 2 reasonable solutions.

Adding more turns to the primary -- will just a few % more turns make a difference? I don't want to loose too much voltage. Also, I hope it's not too important to match the gauge of the added turns to the rest of the primary, as I don't have that exact gauge solid wire.

My original shield/epoxy question remains.

3504. w.t.b icom 70 cm rig ic-2340 ,ic-2350, ic-2400a ,ic-2400 ,eic-2410e ,ic-2410h

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-09 07:24:31 UTC
From: Silvio <silvioylstra@hotmail.com>
Message-ID: <cmprb4$i0i$1@news-02.connect.com.au>
Source record: 22288

hi..... wanted to buy any of these models icom 70 cm rigs ..... ic-2340 ,ic-2350, ic-2400a ,ic-2400 ,eic-2410e ,ic-2410h

, i will pay a cost for shipping to australia and payment would be with western union please some one sell to me .....73s silvio..... silvioylstra@yahoo.com.au

3505. Re: ARRL Handbook

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-09 07:40:18 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2vbb3cF2i8ejiU1@uni-berlin.de>
Source record: 22290

Talking of which, did you hear that Microsoft have just
brought out a vacuum cleaner?

It's the only product of theirs which _DOESN'T_ suck.

"Paul Burridge" <pb@notthisbit.osiris1.co.uk> wrote in message
news:advuo09a5d59d73dg1igie1qe4u82hb6sn@4ax.com...
> When was the Handbook last produced in hardback? I want to try to buy
> the last h/back edition as the paperback one sucks.

3506. Re: ARRL Handbook

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-09 07:41:19 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2vbb3cF2i8ejiU2@uni-berlin.de>
Source record: 22289

You've got that the wrong way around.

It's the RSCB offering which is just so much toilet paper.

"beerbarrel" <beerbarrel@cox.net> wrote in message
news:6u5vo095c1home4klvabv2115p4gh5etlk@4ax.com...
> 2005 is available from arrl in hardback form. I went for the paperback
> as it was already 39.95 and feels like a Sears and roebuck catalog.

3507. Re: ARRL Handbook

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-09 10:38:21 UTC
From: David J Windisch <davidw@copper.net>
Message-ID: <41909e67_3@newsfeed.slurp.net>
Source record: 22291

Treat M$ offerings as just the latest breadboard project on your bench ...
;o)
73, Dave, N3HE

"Airy R. Bean" <me@privacy.net> wrote in message
news:2vbb3cF2i8ejiU1@uni-berlin.de...
> Talking of which, did you hear that Microsoft have just
SNIP

3508. Re: Variable Capacitor Supplier

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-09 13:33:52 UTC
From: "Eike Lantzsch, ZP6CGE" <eikelan@gmx.net>
Message-ID: <slrncp1hq0.hch.eikelan@ID-77364.user.individual.net>
Source record: 22292

S C wrote:
> I am in the process of designing an ATU yet am having difficulty in locating
> a company who can supply a suitable Variable Capacitor.
>
> At the moment the only ones I seem to find are trimming capacitors and I
> require an item which is somwhat larger than that - E.g in the region of
> about 680pF.
>
> Any suggestions as to a suitable supplier would be grately appreciated.
>
> Failing this if anyone knows of a circuit diagram available on the net which
> may be constructed from components more readily available then I am more
> than happy to hear from you.
>
> Many Thanks.
>
>
http://www.rfparts.com/products.html
look under Capacitors, Variable Tuning & Load

Kind regards, Eike

3509. Let.s fight against InfoRelation - spamming service!!!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-09 15:26:09 UTC
From: inforelation55@yahoo.com
Message-ID: <c19abadd.0411090726.261a3ba@posting.google.com>
Source record: 22293

Hallo,

Here is Jilly. Let.s do something with this crazy InfoRelation. By accident I have visited this web... and I am teriffied with what people wish to know and the money they offer! This service is designed for crazy scientists or maniacs... Like the one who uses nickname .OB. and who pays in absoulutely extravagant and suspicious way in my opinion.

Jilly Manner

3510. A transformer too far??

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-09 16:08:37 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <moq1p0pts6o9acqcsbetkuiu8c00l1f71v@4ax.com>
Source record: 22294

Hi guys,

Check this out:

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=42881&item=3851533536&rd=1

Is this type of transformer of any use to the serious radio amateur,
or is it just *way* over the top?
--

"What is now proved was once only imagin'd." - William Blake, 1793.

3511. Re: A transformer too far??

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-09 17:30:44 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <cmqv1c$2q4$1@newshost.mot.com>
Source record: 22296

"Paul Burridge" <pb@notthisbit.osiris1.co.uk> wrote in message
news:moq1p0pts6o9acqcsbetkuiu8c00l1f71v@4ax.com...
> Hi guys,
>
> Check this out:
>
>
http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=42881&item=3851533536&rd=1
>
> Is this type of transformer of any use to the serious radio amateur,
> or is it just *way* over the top?

Sure. *IF* you like sparks around your rig. Make a Jacob's Ladder, etc.
Lotsa volts, don't need to much ma.
This thing belongs on rec.electronics.how.big.can.i.make.a.spark

There are guys who make REALLY BIG Tesla coils. I'm talkin' make your own
capacitors, 5-7 feet tall, light the neighbor's florescent bulbs big!

I kept the ignition transformer from my mother-in-laws oil furnace when
converted to gas. There's quite a bit of power there. The tips of my
Jacob's Ladder heated enough to melt the plastic tube I had it in...and they
barely touch it.
--
Steve N, K,9;d, c. i My email has no u's.

3512. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____ egedduqy

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-09 17:58:31 UTC
From: BJ <rajohngm@worldnet.att.net>
Message-ID: <bz7kd.871568$Gx4.638558@bgtnsc04-news.ops.worldnet.att.net>
Source record: 22295
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

Fuck all you foreigners! Run your own country and quit sponging off the USA.
<Victim_of_American_Stupidity@ivemrybi.fr> wrote in message
news:MPG.17f4ab9df94c@NEWS.GRADWELL.NET...
> You blithering idiots! You re-elected that imbecile George Bush as your
> President.
> He's a complete moron and so are most of you!
> -
> Don't you care what the rest of the world thinks of you? Don't you care
> what impact
> American foreign policy has on the rest of the planet? Does Iraq look
> like a success
> to anyone? Doesn't it bother you that he's alienated every friend you
> have?
> What were you thinking???
> -
> Prior to this, it was American policy and the American government that was
> so universally
> hated around the world. Now it's going to be 'Americans' we hate. More
> sympathy
> for Bin Laden... More attacks on American institutions... More isolation.
> How blind
> can you dumb rednecks in middle-America be, not to see this?
> -
> If you get hit again, or your economy goes into a deep depression, the
> American
> people will be getting exactly what they deserve!
> -
> <back turned>
> -
> -
> -
> -
> -
> -
> [Ignore what follows]
> It might dream difficult pitchers, do you believe them? While
> games globally climb lemons, the candles often wander near the
> humble plates. Are you noisy, I mean, talking under worthwhile
> jackets? He can smell loudly if Cathy's pool isn't ugly. How doesn't
> Afif grasp frantically?
>
> What Corinne's elder carpenter plays, Courtney excuses behind

> light, short ladders. She'd rather call simply than depart with
> Johnny's dirty paper. When does Ghassan move so regularly, whenever
> William orders the open fork very locally? Nowadays, it solves a
> lentil too abysmal below her poor corner. He may truly promise
> beside Hussein when the tired eggs recollect before the clean
> square. There Georgette will expect the shoe, and if Rickie
> strongly hates it too, the potter will change against the younger
> window.
>
> Waleed, still dying, learns almost totally, as the cobbler fears
> with their film. She wants to explain sticky jugs for Alhadin's
> hall. Until Al lives the boats eerily, Jim won't seek any lost
> doorways. My filthy draper won't attempt before I cook it.
> It should lift sadly, unless Murray looks dusts to Henry's pickle. Try
> shouting the night's fat cloud and Nelly will laugh you!
>
> Get your partly burning shirt for my fire. Just tasting inside a
> envelope around the winter is too lazy for Mhammed to like it.
>
>
>

3513. Re: ARRL Handbook

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-09 19:45:03 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2vclanF2l24r5U1@uni-berlin.de>
Source record: 22297

The RSCB is the Radio Society for Citizen's Band, a Britland
book publisher based in Potter's Bar.

The RSCB is irrelevant to Ham Radio despite the false claims that
they make to the contrary.

They promote CB such as the M3/CB Fools' Licences.

"beerbarrel" <beerbarrel@cox.net> wrote in message
news:pe52p05akgehb8m0h4fedujrc4f40f6hs8@4ax.com...
> On Tue, 9 Nov 2004 07:41:19 -0000, "Airy R. Bean" <me@privacy.net>
> wrote:
> >You've got that the wrong way around.
> >It's the RSCB offering which is just so much toilet paper.
> >"beerbarrel" <beerbarrel@cox.net> wrote in message
> >news:6u5vo095c1home4klvabv2115p4gh5etlk@4ax.com...
> >> 2005 is available from arrl in hardback form. I went for the paperback
> >> as it was already 39.95 and feels like a Sears and roebuck catalog.
> I have no idea what RSCB is. The arrl gude seems to be a pretty decent
> pub. It was worth the cost in my opinion.

3514. dds vfo

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-10 02:18:13 UTC
From: Ken Scharf <wa2mzeNOTTHIS@bellsouth.net>
Message-ID: <wZdkd.815$jE2.600@bignews4.bellsouth.net>
Source record: 22198

Here is yet another dds vfo.
This is the manual with schematic for one
that works with the drake 4 line.

http://www.radioamatore.it/woodbox/DDS4-engl.pdf

3515. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____ egedduqy

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-10 03:27:14 UTC
From: "J. D. B." <duffyb01@fuse.net>
Message-ID: <nUfkd.1052$yk5.186@fe37.usenetserver.com>
Source record: 22199
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

You're right, we Americans no longer care about the rest of the world. When we did, by feeding them, fighting for them, helping them rebuild, etc. The rest of the world crapped on us. Twice in the last century we had to save the damn Europeans in two World Wars. We give and give and give to countries starving and in need. We send our forces to restore peace. We help in earthquakes and famines.

So since we have always helped Europe and now Europe turns it back on us when we are in need, screw you all. Have a nice time fighting World War III by yourselves. We'll sit that one out thank you.

Walt Davidson wrote:
> On Mon, 8 Nov 2004 19:30:15 -0500, "news" <w3jxp@adelphia.net> wrote:
>
>
>>Well I don't live in the rest of the world, I live here so what happens to
>>the rest of the world is only of passing interest.
>
>
> That is precisely the American attitude that worries everyone in the
> "rest of the world". Increasingly, Americans seem to care very little
> for anyone but themselves. (As exemplified by their refusal to accept
> the Kyoto Agreement on environmental matters and their consistent
> refusal to accept democratically-made decisions of the United
> Nations.)
>
> In the PNAC documents cited by Peter Lemken, they appear to have
> redefined the meaning of the word "defense", so that it now means
> imposing the "American way" upon everyone else in the world.
>
> I am beginning to move towards the view that David Icke and his "New
> World Order" theories are not as crazy as they seemed at first sight.
>

3516. Re: A transformer too far??

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-10 04:01:08 UTC
From: Roger <Delete-Invallid.stuff.groups@tm.net>
Message-ID: <4j43p0hsujrqunq138gge0tjs5f4rt3jue@4ax.com>
Source record: 22200

On Tue, 09 Nov 2004 16:08:37 +0000, Paul Burridge
<pb@notthisbit.osiris1.co.uk> wrote:

>Hi guys,
>
>Check this out:
>
>http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=42881&item=3851533536&rd=1
>
>Is this type of transformer of any use to the serious radio amateur,
>or is it just *way* over the top?

Fun? Yes.
Pratical? No.

Roger Halstead (K8RI & ARRL life member)
(N833R, S# CD-2 Worlds oldest Debonair)
www.rogerhalstead.com

3517. Re: ARRL Handbook

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-10 04:08:47 UTC
From: w9gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <jvgkd.388904$D%.33619@attbi_s51>
Source record: 22201

My hardback version of 2005 Handbook arrived in mail 3 weeks ago. they only print a limited number in hardback.

gb

"Paul Burridge" <pb@notthisbit.osiris1.co.uk> wrote in message news:advuo09a5d59d73dg1igie1qe4u82hb6sn@4ax.com...
> Hi all,
>
> When was the Handbook last produced in hardback? I want to try to buy
> the last h/back edition as the paperback one sucks.
>
> Thanks,
>
> p.
> --
>
> "What is now proved was once only imagin'd." - William Blake, 1793.

3518. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____ egedduqy

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-10 10:42:40 UTC
From: Dan/W4NTI <w4nti@get>
Message-ID: <Agmkd.6653$_J2.846@newsread2.news.atl.earthlink.net>
Source record: 22202
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

YEP......I agree Americans are STUPID....But for the reasons below MOST of us have smartened up. Course I and many others figured it out a long time ago.

Dan/W4NTI

"J. D. B." <duffyb01@fuse.net> wrote in message news:nUfkd.1052$yk5.186@fe37.usenetserver.com...
> You're right, we Americans no longer care about the rest of the world.
> When we did, by feeding them, fighting for them, helping them rebuild,
> etc. The rest of the world crapped on us. Twice in the last century we
> had to save the damn Europeans in two World Wars. We give and give and
> give to countries starving and in need. We send our forces to restore
> peace. We help in earthquakes and famines.
>
> So since we have always helped Europe and now Europe turns it back on us
> when we are in need, screw you all. Have a nice time fighting World War
> III by yourselves. We'll sit that one out thank you.
>
> Walt Davidson wrote:
> > On Mon, 8 Nov 2004 19:30:15 -0500, "news" <w3jxp@adelphia.net> wrote:
> >
> >
> > >>Well I don't live in the rest of the world, I live here so what happens to
> > >>the rest of the world is only of passing interest.
> >
> >
> > > That is precisely the American attitude that worries everyone in the
> > > "rest of the world". Increasingly, Americans seem to care very little
> > > for anyone but themselves. (As exemplified by their refusal to accept
> > > the Kyoto Agreement on environmental matters and their consistent
> > > refusal to accept democratically-made decisions of the United
> > > Nations.)
> >
> > > In the PNAC documents cited by Peter Lemken, they appear to have
> > > redefined the meaning of the word "defense", so that it now means
> > > imposing the "American way" upon everyone else in the world.
> >
> > > I am beginning to move towards the view that David Icke and his "New
> > > World Order" theories are not as crazy as they seemed at first sight.
> >
>

3519. Re: A transformer too far??

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-10 11:05:40 UTC
From: caskamite@hotmail.com
Message-ID: <cmssm8vup1@newsg2.svr.pol.co.uk>
Source record: 22203

nice pick of a clamp meter in action.
wondered what they did.
Make a nifty stun gun.

3520. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____ egedduqy

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-10 12:20:39 UTC
From: Norb <d@e.v>
Message-ID: <41920799$1@news.vo.lu>
Source record: 22204
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

> Fuck all you foreigners! Run your own country and quit sponging off the
> USA.

Nice to see that you can't do without these bad foreigners.. *bg*

3521. Re: dds vfo

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-10 12:36:54 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <kp24p05afuf09gu7vsee2qf2hlhavdtrjt@4ax.com>
Source record: 22205

On Tue, 09 Nov 2004 21:18:13 -0500, Ken Scharf
<wa2mzeNOTTHIS@bellsouth.net> wrote:

>Here is yet another dds vfo.
>This is the manual with schematic for one
>that works with the drake 4 line.
>
>http://www.radioamatore.it/woodbox/DDS4-engl.pdf

I used to have a Drake TR4/CW that would have benefited from this!
Some bloke from Spain bought it off me. :-(

--

"What is now proved was once only imagin'd." - William Blake, 1793.

3522. Re: AN762 amp from CCI

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-10 12:46:12 UTC
From: Hamish Moffatt <hamish@cloud.net.au>
Message-ID: <41920d91$0$6553$5a62ac22@per-qv1-newsreader-01.iinet.net.au>
Source record: 22206

Michael wrote:
> Thank you all!
>
> I think I had a bad coax. During my bug finding I changed a couple of cables
> and now 180W clean on all bands.
>
> Thanks again!
>
> Vy 73
> de
> Michael
> OZ8AGB

Hi Michael,

Do you have any photos of your amplifier? I am building an amplifier
based on the AN758 kit and filters from CCI.. 300W from a 48V supply. I
am looking for ideas for mounting the boards in the box etc.

73
Hamish VK3SB

3523. Re: A transformer too far??

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-10 18:39:17 UTC
From: Smokey <nospam@nospam.com>
Message-ID: <2vf5ijF2kffkhU1@uni-berlin.de>
Source record: 22207

Kick ASS transformer!!
It is the 20+ amps at 220 volt, replaces my Air conditioner, also the 100ma
at 80KV, that Will Knock the shit out of a cow, man!
Tesla Time

"Paul Burridge" <pb@notthisbit.osiris1.co.uk> wrote in message
news:moq1p0pts6o9acqcsbetkuiu8c00l1f71v@4ax.com...
> Hi guys,
>
> Check this out:
>
>
http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=42881&item=3851533536&rd=1
>
> Is this type of transformer of any use to the serious radio amateur,
> or is it just *way* over the top?
> --
>
> "What is now proved was once only imagin'd." - William Blake, 1793.

3524. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____ egedduqy

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-10 21:49:35 UTC
From: Dan/W4NTI <w4nti@get>
Message-ID: <P1wkd.11209$Gm6.10899@newsread3.news.atl.earthlink.net>
Source record: 22208
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

"Walt Davidson" <g3nyy@despammed.com> wrote in message
news:7qs3p0dkgn43if5ii3rui7tlmg4alnkrli@4ax.com...
> On Wed, 10 Nov 2004 10:42:40 GMT, "Dan/W4NTI" <w4nti@get rid of this
> mindspring.com> wrote:
>
> >YEP......I agree Americans are STUPID....But for the reasons below MOST
of
> >us have smartened up. Course I and many others figured it out a long
time
> >ago.
>
> "Nobody likes us,
> Everybody hates us ...."
> [sound of violins]
>
> I wonder why?
>
> Maybe if you sat back and took a long, hard look at yourselves ....
>
> --
> Walt Davidson Email: g3nyy @despammed.com

That's what we just did Walt. Pay attention.

Dan/W4NTI

3525. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____ egedduqy

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-10 21:52:02 UTC
From: Dan/W4NTI <w4nti@get>
Message-ID: <64wkd.11212$Gm6.2984@newsread3.news.atl.earthlink.net>
Source record: 22209
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

"Walt Davidson" <g3nyy@despammed.com> wrote in message
news:6hs3p01kgr6pq3fffdnl2q3pe2obveoemt@4ax.com...
> On Tue, 09 Nov 2004 22:27:14 -0500, "J. D. B." <duffyb01@fuse.net>
> wrote:
>
> >You're right, we Americans no longer care about the rest of the world.
> >When we did, by feeding them, fighting for them, helping them rebuild,
> >etc. The rest of the world crapped on us. Twice in the last century we
> >had to save the damn Europeans in two World Wars.
>
> LOL! They actually teach them this crap in school now.
>
> >We give and give and
> >give to countries starving and in need. We send our forces to restore
> >peace. We help in earthquakes and famines.
> >
> >So since we have always helped Europe and now Europe turns it back on us
> >when we are in need, screw you all. Have a nice time fighting World War
> >III by yourselves. We'll sit that one out thank you.
>
> Good. Well at least now we know exactly where we stand.
>
> 73 de G3NYY (from one of the very few countries that IS presently
> helping you out in Iraq ... glad to know it's appreciated).
>
> --
> Walt Davidson Email: g3nyy @despammed.com

I for one send my appreciation to your PM, Mr. Blair. But from what I hear
of the British press it is not a popular position. So don't be so surprised
when ''the colonies'' don't take you folks too seriously.

Dan/W4NTI

3526. Re: A transformer too far??

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-10 22:15:13 UTC
From: Joe McElvenney <ximac@btinternet.com>
Message-ID: <VA.00000042.002e63ea@btinternet.com>
Source record: 22210

Hi,

Not wanting to pour rain on the parade but -

Diagnostic x-ray transformers are only rated for very intermittent use and are normally immersed in oil for cooling and insulation purposes.

The meter in the picture is calibrated in mAs (not mA) so it isn't obvious what the actual secondary current is. FYI, the milli-amp seconds figure (tube current x exposure time) is preset and used to set film darkening.

An x-ray tube is a temperature-limited vacuum diode so that the current can be tightly controlled. Therefore, during the arc shown, the secondary voltage will almost certainly have dropped quite dramatically.

Cheers - Joe

3527. Re: A transformer too far??

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-11 03:50:31 UTC
From: BBC's James Copnall <nospam@nospam.com>
Message-ID: <2vg5s5F2kqd8qU1@uni-berlin.de>
Source record: 22212

"Joe McElvenney" <ximac@btinternet.com> wrote in message
news:VA.00000042.002e63ea@btinternet.com...
> Hi,
>
> Not wanting to pour rain on the parade but -
>
> Diagnostic x-ray transformers are only rated for very
> intermittent use and are normally immersed in oil for cooling and
> insulation purposes.
>
> The meter in the picture is calibrated in mAs (not mA) so it
> isn't obvious what the actual secondary current is. FYI, the
> milli-amp seconds figure (tube current x exposure time) is preset
> and used to set film darkening.
>
> An x-ray tube is a temperature-limited vacuum diode so that
> the current can be tightly controlled. Therefore, during the arc
> shown, the secondary voltage will almost certainly have dropped
> quite dramatically.
>
>
> Cheers - Joe
>
Thanks for the info, knew it was time limited, but not the oil immersion
stuff.
It is built strange for a HV TF, probably optomized for the time and tube.
Ones I have seen are cubic foot black things.

3528. Re: Help! Transformer induces hum to chassis!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-11 04:02:00 UTC
From: Jim Adney <jadney@vwtype3.org>
Message-ID: <5833p0le2nv2733ef81r78kalnbu3snir0@4ax.com>
Source record: 22213

On Tue, 09 Nov 2004 06:24:21 GMT Prune <bobysgotguns@yahoo.com> wrote:

>> These are your only 2 reasonable solutions.
>
>Adding more turns to the primary -- will just a few % more turns make a
>difference? I don't want to loose too much voltage. Also, I hope it's not
>too important to match the gauge of the added turns to the rest of the
>primary, as I don't have that exact gauge solid wire.

The stray field will probably go down faster than the proportion of
windings added. Any wire as heavy or heavier can be used.

If you don't want to lose secondary voltage, you can just add the same
proportional number of secondary turns, too.

-

Jim Adney jadney@vwtype3.org
Madison, WI 53711 USA

3529. Re: A transformer too far??

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-11 04:15:30 UTC
From: Ken Scharf <wa2mzeNOTTHIS@bellsouth.net>
Message-ID: <tMAkd.6989$WC6.2295@bignews3.bellsouth.net>
Source record: 22211

Paul Burridge wrote:
> Hi guys,
>
> Check this out:
>
> http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=42881&item=3851533536&rd=1
>
> Is this type of transformer of any use to the serious radio amateur,
> or is it just *way* over the top?
Going in the other direction, I remember as a kid playing with a giant step down transformer (the largest one Lionel made for their train sets). If you put a common #2 pencil into the circuit (from end to end using the full length of the pencil) the lead (graphite) would glow white hot and the wood would catch fire.
Wonder how many amps I forced into the pencil?

3530. Re: A transformer too far??

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-11 04:57:20 UTC
From: **THE-RFI-EMI-GUY** <rhyolite@nettally.com>
Message-ID: <cmure9odr1@news.utelfla.com>
Source record: 22214

I did the same thing I can remember the smell of the paint!

Ken Scharf wrote:

> Paul Burridge wrote:
>
>> Hi guys,
>>
>> Check this out:
>>
>> http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=42881&item=3851533536&rd=1
>>
>>
>> Is this type of transformer of any use to the serious radio amateur,
>> or is it just *way* over the top?
>
> Going in the other direction, I remember as a kid playing with a giant
> step down transformer (the largest one Lionel made for their train
> sets). If you put a common #2 pencil into the circuit (from end to
> end using the full length of the pencil) the lead (graphite) would glow
> white hot and the wood would catch fire.
> Wonder how many amps I forced into the pencil?

--
Joe Leikhim K4SAT
"The RFI-EMI-GUY"

The Lost Deep Thoughts By: Jack Handey
Before a mad scientist goes mad, there's probably a time
when he's only partially mad. And this is the time when he's
going to throw his best parties.

3531. FS: NOS Porcelain feedthrough insulators

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-11 16:11:28 UTC
From: ljl160@netzero.net
Message-ID: <ad4e1371.0411110811.7db867f8@posting.google.com>
Source record: 22157

Nice NOS porcelain 2 piece feedthrough insulators. Require 3/4 inch chassis hole. These are great for hb tuners, linears, hv supplies, and balanced line antenna feedthrough window plates. I have several left but way more than I now can use so I will priority ship them at $30 for 24 insulators. I have a photo. 73s-Lew/K1NDV

3532. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____ egedduqy

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-11 17:43:15 UTC
From: Marco <marco.m3van@btopenworld.com>
Message-ID: <cn08bi$6pk$1@titan.btinternet.com>
Source record: 22216
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

"Walt Davidson" <g3nyy@despammed.com> wrote in message
news:6111p0hilh2m2a3s6qv6i2045ub1lruf8v@4ax.com...
> On Mon, 8 Nov 2004 19:30:15 -0500, "news" <w3jxp@adelphia.net> wrote:
>
>>Well I don't live in the rest of the world, I live here so what happens to
>>the rest of the world is only of passing interest.
>
> That is precisely the American attitude that worries everyone in the
> "rest of the world". Increasingly, Americans seem to care very little
> for anyone but themselves. (As exemplified by their refusal to accept
> the Kyoto Agreement on environmental matters and their consistent
> refusal to accept democratically-made decisions of the United
> Nations.)
>
> In the PNAC documents cited by Peter Lemken, they appear to have
> redefined the meaning of the word "defense", so that it now means
> imposing the "American way" upon everyone else in the world.
>
> I am beginning to move towards the view that David Icke and his "New
> World Order" theories are not as crazy as they seemed at first sight.
>
> --
> Walt Davidson Email: g3nyy @despammed.com

You know what Walt. For once I REALLY agree with you.
Marco

Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.791 / Virus Database: 535 - Release Date: 08/11/2004

3533. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____ egedduqy

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-11 17:43:16 UTC
From: Marco <marco.m3van@btopenworld.com>
Message-ID: <cn08bj$6pk$2@titan.btinternet.com>
Source record: 22215
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

"Walt Davidson" <g3nyy@despammed.com> wrote in message
news:cla6p01nagrh3u2fr5uir5v1s91rnkqijv@4ax.com...
> On Wed, 10 Nov 2004 21:52:02 GMT, "Dan/W4NTI" <w4nti@get rid of this
> mindspring.com> wrote:
>
>>I for one send my appreciation to your PM, Mr. Blair. But from what I hear
>>of the British press it is not a popular position. So don't be so surprised
>>when ''the colonies'' don't take you folks too seriously.
>
> Mr Blair, just like Mr Bush, was voted into office by a majority of
> the electorate. Read into that what you will.
>
> You may care to read the comments here:
>
> http://news.bbc.co.uk/1/hi/talking_point/3991813.stm
>
> But then again, perhaps you would not.
>
> 73 de G3NYY
>
> --
> Walt Davidson Email: g3nyy @despammed.com

Glad you are talking sense Walt.
Please keep up the good work.
Marco

Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.791 / Virus Database: 535 - Release Date: 08/11/2004

3534. Re: Please Recommend Wireless Protocol and How-To/Tutorial

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-11 18:51:10 UTC
From: Ed Beroset <beroset@mindspring.com>
Message-ID: <ywOkd.12085$Gm6.5054@newsread3.news.atl.earthlink.net>
Source record: 22217
Cross-posted to:
comp.protocols.misc,comp.arch.embedded,rec.radio.amateur.digital.misc,rec.radio.amateur.homebrew,alt.radio.digital

usenet@pobox.com wrote:

> The real challenge of the project is in developing my own wireless
> protocol to handle packetization, start and stop codes, error
> detection and correction, line coding, and perhaps collision handling.

> I am looking for a good tutorial on how to go about such a task--i.e.
> what options are available and guidelines for implementing them.
> Something on the web or a book would both be good.

It gets into more of the low level detail than you might, perhaps, be interested in for this project, but I'd recommend Bernard Sklar's book, _Digital Communications: Fundamentals and Applications_ for a very good book on the basics of that topic. Second, if you do elect to design your own protocol, I'd recommend modelling it before you deploy it. You can find errors quickly and easily in a model that you might only rarely encounter in real operation. To find out more about that, I'd recommend Spin, which you can read about at http://spinroot.com/spin/whatispin.html

Good luck!

Ed

3535. Re: Stupid Americans! -- Stupid

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-11 22:19:19 UTC
From: Keyboard In The Wilderness <Key@Kennel.net>
Message-ID: <HzRkd.131172$hj.73962@fed1read07>
Source record: 22218
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

But I, Sir Walter disagree (;-)

A keyboard from LaJolla, CA
--
The Anon Keyboard
I doubt, therefore I might be

"Walt Davidson" <g3nyy@despammed.com> wrote in message
news:eeg7p05r1d9equc9vrupm0sghqn9hvmu7q@4ax.com...
> On Thu, 11 Nov 2004 17:43:15 +0000 (UTC), "Marco"
> <marco.m3van@btopenworld.com> wrote:
>
>>You know what Walt. For once I REALLY agree with you.
>>Marco
>
> They do say there's a first time for everything!
> ;-)
>
> 73 de G3NYY
>
> --
> Walt Davidson Email: g3nyy @despammed.com

3536. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____ egedduqy

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-12 01:16:00 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <cl38p059i81ec31vc5b8ck1p1j2p5l39sj@4ax.com>
Source record: 22219
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

On Thu, 11 Nov 2004 19:48:09 +0000, Walt Davidson
<g3nyy@despammed.com> wrote:

>On Thu, 11 Nov 2004 17:43:15 +0000 (UTC), "Marco"
><marco.m3van@btopenworld.com> wrote:
>
>>You know what Walt. For once I REALLY agree with you.
>>Marco
>
>They do say there's a first time for everything!

Erm, Walt, you *did* read the comments you pointed to, didn't you?
--

"What is now proved was once only imagin'd." - William Blake, 1793.

3537. FS: TUBES, 1000's priced from $.35 each

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-12 01:34:42 UTC
From: Murray Pasternack <w6krc@arrl.net>
Message-ID: <pqUkd.283822$a85.130932@fed1read04>
Source record: 22220
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew,rec.radio.amateur.swap,rec.radio.swap

```
1000's of used & nos tubes at very low prices. email W6KRCatARRL.NET
(replace "at" with "@") for a detailed list.
```

3538. frequency counter usage

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-12 01:47:37 UTC
From: Uwe <outhouse@midcoast.com>
Message-ID: <BDB98069.FE36%outhouse@midcoast.com>
Source record: 22221

I got an HP 5384A but it doesn't have a manual and they also seem to be hard to come by. Is there any general introduction into the use of these counters someone could point me to???

UWE

3539. Re: frequency counter usage

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-12 02:24:39 UTC
From: Keyboard In The Wilderness <Key@Kennel.net>
Message-ID: <I9Vkd.131207$hj.58790@fed1read07>
Source record: 22222

You can find an HP 5384A manual at Manual Merchant -- URL:
http://www.manualmerchant.com/hp4-6.htm

The following URL will help understand some of the basic measurement
techniques
http://www.reed-electronics.com/tmworld/article/CA187482.html

--
The Anon Keyboard
I doubt, therefore I might be

"Uwe" <outhouse@midcoast.com> wrote in message
news:BDB98069.FE36%outhouse@midcoast.com...
>I got an HP 5384A but it doesn't have a manual and they also seem to be
>hard
> to come by. Is there any general introduction into the use of these
> counters
> someone could point me to???
>
> UWE
>

3540. LED Pushbutton Switch

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-12 02:32:53 UTC
From: Jim - KK1W <kk1w@arrl.org>
Message-ID: <10p886mcthon684@corp.supernews.com>
Source record: 22223

I'm looking for a source of LED pushbutton switches for use in a model railrad application. I've seen similar ones in vehicle alarm installations but can't seem to find anything on the web.

They need to be NO type and not very large. 3mm or so is fine. Price is important as the application will require quite a few.

Thanks for any info,

Jim, KK1W

3541. RF and GFCI

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-12 04:55:12 UTC
From: Joel <Joel@Joelworld.com>
Message-ID: <QmXkd.9494$7i4.3310@bgtnsc05-news.ops.worldnet.att.net>
Source record: 22224

Anyone else have trouble with HF - tripping GFCI in my garage when keying the mike.

3542. For Sale: FM Stereo Broadcast Transmitter 88-108 MHz Digital PLL LCD Display - 2 Watt

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-12 08:05:28 UTC
From: righteous-jude <nospam@noreply.com>
Message-ID: <BDB9BCD8.4ADD%nospam@noreply.com>
Source record: 22225

FM Stereo Broadcast Transmitter
Digital PLL - LCD - 2 Watt RF Output

Ebay item # 5730774971

Auction ends in 2 days:
Ends Nov-14-04 19:13:56 PST

Here is the direct link:
http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=5730774971

Transmitter is an assembled and tested unit -- not a kit.

This FM Stereo transmitter is well-known to many eBayer's as being the best transmitter you can get for the money. You'd have to buy a commercial brand FM exciter (such as a Harris) to exceed the specs of this unit. On virtually all FM receivers you would not hear the difference.

This transmitter is a NEW design and DOES NOT use the "BA" or "Rohm" analog chip - ANYWHERE IN IT AT ALL. Which is a good thing.

The heart of the transmitting circuit is a Cypress Semiconductor Digital Signal Controller. This is a 16 bit DSP microcontroller with on-chip Flash, RAM, A/Ds, PWM, and 200k of EEPROM.

This transmitter can equal the sound of commercial FM stations. It outperforms ANY of the Ramsey transmitters, including the "export" version of the FM-100B which Ramsey sells for $429.99.

You can have this transmitter for much less than that.

Here are the specifications for this transmitter (from the manufacturer):

Transmission Frequency: Adjustable between 87-108 MHz
Tuning Steps: 10 kHz
RF Power Output: Typ 1Watt @ 13V or 2 Watts @ 24V
Spurious RF Emissions: Better than -45 dB ref. to carrier
Frequency Stability: PLL Typ +/-1KHz
SWR Ruggedness: Withstands 30:1 SWR mismatch
RF Output Connector: BNC type
Audio Input Sensitivity: 0.8V rms for +/- 75 KHz deviation
Signal To Noise Ratio: 60 dBu
Frequency Response: Flat from 20 Hz to 15 KHz
Stereo Separation: >40 dB
Pre-emphasis: 75 uS (standard FCC spec for U.S. FM radio)
Audio Distortion: Better than 0.2 % THD

Audio Input Connectors: RCA Phono Jacks
Power Jack: Coaxial type, 5.5mm O.D. 2.1mm I.D. center positive
DC Power Input: 12 to 24 Vdc Regulated 600mA

The transmitter has a built-in user options menu system with two buttons for adjusting operating parameters such as transmitting frequency, modulation level, MPX pilot level, etc.

This transmitter has a clean RF output. The design includes a seven-element Low Pass RF Filter for harmonic suppression.

This transmitter has built-in audio AGC (Automatic Gain Control). The AGC feature can be adjusted using the user options menu or you can turn it off if you like.

Operating instructions will be included with the unit.

3543. Re: RF and GFCI

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-12 08:32:14 UTC
From: budgie <me@privacy.net>
Message-ID: <sgs8p01p7svr8cpo9133oo8vbqc9jekt6k@4ax.com>
Source record: 22226

On Fri, 12 Nov 2004 04:55:12 GMT, "Joel" <Joel@Joelworld.com> wrote:

>Anyone else have trouble with HF - tripping GFCI in my garage when keying
>the mike.

I don't have trouble with HF tripping the GFCI in YOUR garage, but I sure as hell have a similar problem here in my shack.

Cheap shots aside, the GFCI usually contains a toroidal core which has the active and neutral (return) lines pass through it, and a secondary winding which sees the difference between the active and neutral currents i.e. the current passing through another route (ground assumed). The secondary feeds an amplifier which drives the trip circuit.

In an endeavour to obtain decent sensitivity AND fast reponse, there appears to be a general lack of RF immunity in these devices.

If I use a VHF handheld within a metre or so of appliances connected via the GFCI, no problem. However if I use the same device sitting in its mains-powered charger base - on or off charge - the interrupter trips. I also have a 25W transceiver on 80 MHz (commercial) which caused frequent tripping on Tx until I took remedial measures.

<presumption mode> Enough RF is conducted along the power lead to result in RF in the toroid's secondary which the amplifier rectifies/detects. </presumption mode>

In the case of the 80 MHz set, I slipped a toroid over the DC power lead. (RF choke). DC power is derived from a mains PSU. Antenna is not earthed to this system. Problem gone.

In your instance, it may be RF entering by direct radiation from the antenna into the GFCI or power cables passing through same, OR it may be RF getting conducted back up the supply of the HF set. Trial and error should determine which - does it trip when you run the Tx into a dummy load? Can you try a toroid around the supply cable?

3544. Looking for roller inductors

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-12 10:40:50 UTC
From: ON5MJ <my_call_sign@skynet.be>
Message-ID: <41949258$0$21242$ba620e4c@news.skynet.be>
Source record: 22227

Hello there,

Is this kind of inductors still for sale or still build ? I would like to buy two identical roller inductors of about 20 to 30 µH for an antenna tuner. Does somebody know where I can buy them. In the US or in Europe, no matter.

73 de ON5MJ - Jacques.

3545. Re: RF and GFCI

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-12 11:07:40 UTC
From: "Larry Gauthier (K8UT)" <MyCallsign@ARRL.NET>
Message-ID: <10p96ia6p82um78@corp.supernews.com>
Source record: 22228

I have had this problem with some GFCIs in my home (bathrooms, kitchens). I
determined that it was one particular brand (don't remember which one) and
replaced them with another manufacturer's and the problem went away.
--
-larry
K8UT
"Joel" <Joel@Joelworld.com> wrote in message
news:QmXkd.9494$7i4.3310@bgtnsc05-news.ops.worldnet.att.net...
> Anyone else have trouble with HF - tripping GFCI in my garage when keying
> the mike.
>
>

3546. Re: RF and GFCI

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-12 13:16:48 UTC
From: John Walton <jdwalton@comcast.net>
Message-ID: <WuWdnVT_z-wQKwncRVn-3g@comcast.com>
Source record: 22229

This would be a good article for QST -- a review of ground-fault
interrupters for those with adequate RFI protection.

"Joel" <Joel@Joelworld.com> wrote in message
news:QmXkd.9494$7i4.3310@bgtnsc05-news.ops.worldnet.att.net...
> Anyone else have trouble with HF - tripping GFCI in my garage when keying
> the mike.
>
>

3547. Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-12 13:42:19 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <bre9p0t3e6vf6asvtcd9mk98of084siu4u@4ax.com>
Source record: 22230
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

The power company run a line to my house. They supply me with
electricity. This amounts to a 230V, 65A facility at the distribution
board in a cupboard under the stairs. I run all my stuff from that
board. The board contains several RCBOs that trip-out in the event of
any leakage current being sensed. If current in = current out; they're
happy and won't trip. Because they don't trip out, I conclude I don't
use any current.
The voltage supplied is 230VAC RMS. Since this is alternating between
equal positive and negative half-cycles, the average level of this
voltage supply is zero.
I use no current and they effectively supply no voltage. Why do I get
billed for electricity usage when I clearly can't have used any?
--

"What is now proved was once only imagin'd." - William Blake, 1793.

3548. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-12 13:56:34 UTC
From: donaldun@spamfreepearce.uk.com
Message-ID: <4194c097.18537968@212.159.2.87>
Source record: 22232
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Fri, 12 Nov 2004 13:42:19 +0000, Paul Burridge
<pb@notthisbit.osiris1.co.uk> wrote:

>The power company run a line to my house. They supply me with
>electricity. This amounts to a 230V, 65A facility at the distribution
>board in a cupboard under the stairs. I run all my stuff from that
>board. The board contains several RCBOs that trip-out in the event of
>any leakage current being sensed. If current in = current out; they're
>happy and won't trip. Because they don't trip out, I conclude I don't
>use any current.
>The voltage supplied is 230VAC RMS. Since this is alternating between
>equal positive and negative half-cycles, the average level of this
>voltage supply is zero.
>I use no current and they effectively supply no voltage. Why do I get
>billed for electricity usage when I clearly can't have used any?

You don't get billed for current, you get billed for energy - in the
UK the measure is the kilowatt hour. Multiply your voltage by your
current instant by instant, take the average (gives you power) and
multiply that by the duration in hours and you have your consumption.

NIce try, though...

d
Pearce Consulting
http://www.pearce.uk.com

3549. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-12 14:06:47 UTC
From: Spehro Pefhany <speffSNIP@interlogDOTyou.knowwhat>
Message-ID: <2kg9p0p0cjderdreqrqd89fjms4u8co1n6@4ax.com>
Source record: 22231
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Fri, 12 Nov 2004 13:42:19 +0000, the renowned Paul Burridge
<pb@notthisbit.osiris1.co.uk> wrote:

>The power company run a line to my house. They supply me with
>electricity. This amounts to a 230V, 65A facility at the distribution
>board in a cupboard under the stairs. I run all my stuff from that
>board. The board contains several RCBOs that trip-out in the event of
>any leakage current being sensed. If current in = current out; they're
>happy and won't trip. Because they don't trip out, I conclude I don't
>use any current.

No, you don't use hardly any leakage current to earth (RCD), and you
don't use more than the maximum trip current between lines (MCB). An
RCBO is an MCB + RCD, to use the Brit terms.

>The voltage supplied is 230VAC RMS. Since this is alternating between
>equal positive and negative half-cycles, the average level of this
>voltage supply is zero.

But the RMS value is 230VAC.

>I use no current and they effectively supply no voltage. Why do I get
>billed for electricity usage when I clearly can't have used any?

Why don't you ring up the power company engineers and see if you can
get them to see things your way? Could save a lot of money.

Best regards,
Spehro Pefhany
--
"it's the network..." "The Journey is the reward"
speff@interlog.com Info for manufacturers: http://www.trexon.com
Embedded software/hardware/analog Info for designers: http://www.speff.com

3550. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-12 14:25:03 UTC
From: News <sabinw@mwci.net>
Message-ID: <10p9hu781057fd0@corp.supernews.com>
Source record: 22233
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

"Paul Burridge" <pb@notthisbit.osiris1.co.uk> wrote in message
news:bre9p0t3e6vf6asvtcd9mk98of084siu4u@4ax.com...
> The power company run a line to my house. They supply me with
> electricity. This amounts to a 230V, 65A facility at the distribution
> board in a cupboard under the stairs. I run all my stuff from that
> board. The board contains several RCBOs that trip-out in the event of
> any leakage current being sensed. If current in = current out; they're
> happy and won't trip. Because they don't trip out, I conclude I don't
> use any current.
> The voltage supplied is 230VAC RMS. Since this is alternating between
> equal positive and negative half-cycles, the average level of this
> voltage supply is zero.
> I use no current and they effectively supply no voltage. Why do I get
> billed for electricity usage when I clearly can't have used any?

There is a minimum charge, regardless of energy usage.

Bill W0IYH

3551. Re: RF and GFCI

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-12 14:25:29 UTC
From: "Harold E. Johnson" <W4ZCB@mchsi.com>
Message-ID: <tJ3ld.398600$D%.140470@attbi_s51>
Source record: 22234

> > Anyone else have trouble with HF - tripping GFCI in my garage when keying
> > the mike.
> >

An interesting tale of GFCI and RFI. Square D was/is a manufacturer of those little devils. In manufacturing they had a test table where they took representative samples of the weeks manufacture and ran them under load for some period of time. These would operate satisfactorily for some extended period and then the first of the week they would find a large failure rate. At times, as much as 50 percent of the run had "failed".

Eventually, they found that the plant closed for the weekend, and the guard in making his rounds would check in on his walkie talkie at a reporting station located adjacent to the test table. The miniscule amount of RF would trip those suckers and caused Square D to incorporate some RFI protection.

I have tripped mine causing the street lamp to fail (among other circuits) but only when running high power on 2 meters. (KW level) If you're failing yours, it's most likely quite old, either manufactured before they recognized the problems, or having failed whatever protection that was built into the module. Would suggest that replacement with a new one from your local electric supply house will cure the problem.

W4ZCB

3552. Re: RF and GFCI

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-12 14:50:18 UTC
From: Jason Dugas <kb5urq@hotmail.com>
Message-ID: <10p9jd12qqfsscd@corp.supernews.com>
Source record: 22235

Its interesting this topic came up this week. At work (NASA's Johnson Space Center) I've been working an issue related to a GFCI circuit on the International Space Station. Seems ESA (European Space Agency) has built a GFCI circuit into their UOP (Utility Outlet Panel) which, just like all other GFCI's, monitors the safety wire for excess current in order to protect the crew, etc.

Unlike your residential GFCI circuits, the UOPs are for DC, not AC. It turns out that with some of the EMI filters we put on our loads, you could get enough significant ringing off the L-C filters to trip the UOP. Yet another problem that you can run into with GFCI, only in the DC world.

Just thought I'd throw that one out there.

Jason
KB5URQ
(Electrical Power Distribution & Control, NASA-JSC)

"Joel" <Joel@Joelworld.com> wrote in message
news:QmXkd.9494$7i4.3310@bgtnsc05-news.ops.worldnet.att.net...
> Anyone else have trouble with HF - tripping GFCI in my garage when keying
> the mike.
>
>

3553. test

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-12 15:22:38 UTC
From: News <sabinw@mwci.net>
Message-ID: <10p9la7h4o8jd81@corp.supernews.com>
Source record: 22236

"News" <sabinw@mwci.net> wrote in message
news:10p9hu781057fd0@corp.supernews.com...
>
> "Paul Burridge" <pb@notthisbit.osiris1.co.uk> wrote in message
> news:bre9p0t3e6vf6asvtcd9mk98of084siu4u@4ax.com...
>> The power company run a line to my house. They supply me with
>> electricity. This amounts to a 230V, 65A facility at the distribution
>> board in a cupboard under the stairs. I run all my stuff from that
>> board. The board contains several RCBOs that trip-out in the event of
>> any leakage current being sensed. If current in = current out; they're
>> happy and won't trip. Because they don't trip out, I conclude I don't
>> use any current.
>> The voltage supplied is 230VAC RMS. Since this is alternating between
>> equal positive and negative half-cycles, the average level of this
>> voltage supply is zero.
>> I use no current and they effectively supply no voltage. Why do I get
>> billed for electricity usage when I clearly can't have used any?
>
> There is a minimum charge, regardless of energy usage.
>
> Bill W0IYH
>

3554. Re: test

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-12 15:39:26 UTC
From: "William E. Sabin" <sabinw@mwci.net>
Message-ID: <10p9m9hpi7hik6e@corp.supernews.com>
Source record: 22237

test again

Bill W0IYH

"News" <sabinw@mwci.net> wrote in message
news:10p9la7h4o8jd81@corp.supernews.com...
>
> "News" <sabinw@mwci.net> wrote in message
> news:10p9hu781057fd0@corp.supernews.com...
>>
>> "Paul Burridge" <pb@notthisbit.osiris1.co.uk> wrote in message
>> news:bre9p0t3e6vf6asvtcd9mk98of084siu4u@4ax.com...
>>> The power company run a line to my house. They supply me with
>>> electricity. This amounts to a 230V, 65A facility at the distribution
>>> board in a cupboard under the stairs. I run all my stuff from that
>>> board. The board contains several RCBOs that trip-out in the event of
>>> any leakage current being sensed. If current in = current out; they're
>>> happy and won't trip. Because they don't trip out, I conclude I don't
>>> use any current.
>>> The voltage supplied is 230VAC RMS. Since this is alternating between
>>> equal positive and negative half-cycles, the average level of this
>>> voltage supply is zero.
>>> I use no current and they effectively supply no voltage. Why do I get
>>> billed for electricity usage when I clearly can't have used any?
>>
>> There is a minimum charge, regardless of energy usage.
>>
>> Bill W0IYH
>>
>
>

3555. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-12 15:57:13 UTC
From: John Fields <jfields@austininstruments.com>
Message-ID: <5vm9p0haramu5ntbmj8qcj7tf51ln1h4pj@4ax.com>
Source record: 22238
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Fri, 12 Nov 2004 13:42:19 +0000, Paul Burridge
<pb@notthisbit.osiris1.co.uk> wrote:

>The power company run a line to my house. They supply me with
>electricity. This amounts to a 230V, 65A facility at the distribution
>board in a cupboard under the stairs. I run all my stuff from that
>board. The board contains several RCBOs that trip-out in the event of
>any leakage current being sensed. If current in = current out; they're
>happy and won't trip. Because they don't trip out, I conclude I don't
>use any current.
>The voltage supplied is 230VAC RMS. Since this is alternating between
>equal positive and negative half-cycles, the average level of this
>voltage supply is zero.
>I use no current and they effectively supply no voltage. Why do I get
>billed for electricity usage when I clearly can't have used any?

For a purely resistive load, since P = Iï¿½R, the sign of the current
going into the load gets squared, so that when it goes in negative it
comes out positive.

For a reactive load, you don't get charged for the imaginary current,
(at least in the US we don't) so you get charged for what you use.

--
John Fields

3556. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-12 16:33:24 UTC
From: Bob Stephens <stephensyomamadigital@earthlink.net>
Message-ID: <ulwxqiij0yhu.1clwm9gvysp77.dlg@40tude.net>
Source record: 22239
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Fri, 12 Nov 2004 13:42:19 +0000, Paul Burridge wrote:

> The power company run a line to my house. They supply me with
> electricity. This amounts to a 230V, 65A facility at the distribution
> board in a cupboard under the stairs. I run all my stuff from that
> board. The board contains several RCBOs that trip-out in the event of
> any leakage current being sensed. If current in = current out; they're
> happy and won't trip. Because they don't trip out, I conclude I don't
> use any current.
> The voltage supplied is 230VAC RMS. Since this is alternating between
> equal positive and negative half-cycles, the average level of this
> voltage supply is zero.
> I use no current and they effectively supply no voltage. Why do I get
> billed for electricity usage when I clearly can't have used any?

What you want to do is take an extension cord, plug it into an outlet on one side of the house, and plug the other end into an outlet on the other side (carefully observing polarity), thereby sending their own electricity back to them, running the wattmeter backwards and nulling out any billable KWH.

Bob

BTW, just in case, this is a *JOKE*, and it wasn't me telling it.

3557. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-12 16:34:12 UTC
From: troglodite@aol.com
Message-ID: <20041112113412.21734.00000478@mb-m14.aol.com>
Source record: 22240

>Quite right. Call the electric company and tell them you want only
>half-cycles starting immediately. If they persist in sending you an
>average of zero, you will start paying your bill with a combination of
>payment and charge back. That should straighten them out.

The way it was explained to me, the electric company sends you the stuff on one wire, but it goes right back to them on the other wire. You should only be paying a small rental fee, as you don't get to keep any of it, and they keep re-selling the same electricity back to you and everyone else.

Doug Moore KB9TMY

3558. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-12 16:38:08 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <s3p9p0h6okho6fghmscnj7n6v2ch2b8hec@4ax.com>
Source record: 22241
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Fri, 12 Nov 2004 13:56:34 GMT, donaldun@spamfreepearce.uk.com (Don Pearce) wrote:

>You don't get billed for current, you get billed for energy - in the
>UK the measure is the kilowatt hour.

Hey, whose side are you on? ;-)

>Multiply your voltage by your
>current instant by instant, take the average (gives you power) and
>multiply that by the duration in hours and you have your consumption.

They don't bill me instant-by-instant; they bill me for the power they claim I've used over the course of a three-monthly period. Since power is the product of voltage and current (and I've proved earlier that both are zero) I'm being charged for electricity that I've not actually used. The current goes in and out of the house unchanged. It's all returned to the power company. All I've done is borrow it. And you can bet that when they get their current back they don't just dump it to ground; oh no. They re-sell it again and again and again to other suckers like me. We're all paying multiple sums for the *same* lousy current that's probably been circulating for years.
The power companies have been scamming us for decades! I can't believe I've only just woken up to it.

--

"What is now proved was once only imagin'd." - William Blake, 1793.

3559. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-12 16:48:00 UTC
From: donaldun@spamfreepearce.uk.com
Message-ID: <419be8cc.28828328@212.159.2.87>
Source record: 22242
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Fri, 12 Nov 2004 16:38:08 +0000, Paul Burridge
<pb@notthisbit.osiris1.co.uk> wrote:

>On Fri, 12 Nov 2004 13:56:34 GMT, donaldun@spamfreepearce.uk.com (Don
>Pearce) wrote:
>
>>You don't get billed for current, you get billed for energy - in the
>>UK the measure is the kilowatt hour.
>
>Hey, whose side are you on? ;-)
>
>>Multiply your voltage by your
>>current instant by instant, take the average (gives you power) and
>>multiply that by the duration in hours and you have your consumption.
>
>They don't bill me instant-by-instant; they bill me for the power they
>claim I've used over the course of a three-monthly period. Since power
>is the product of voltage and current (and I've proved earlier that
>both are zero) I'm being charged for electricity that I've not
>actually used. The current goes in and out of the house unchanged.
>It's all returned to the power company. All I've done is borrow it.
>And you can bet that when they get their current back they don't just
>dump it to ground; oh no. They re-sell it again and again and again to
>other suckers like me. We're all paying multiple sums for the *same*
>lousy current that's probably been circulating for years.
>The power companies have been scamming us for decades! I can't believe
>I've only just woken up to it.

Aww c'mon - if you multiply a positive voltage by a positive current
you get positive power. If you multiply negative voltage by negative
current you get positive power.

Anyway - are you cleaning and refurbishing those amps before you give
them back? They wear out, you know.

d
Pearce Consulting
http://www.pearce.uk.com

3560. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-12 16:50:40 UTC
From: Markus Mandl <Mandl-Bayreuth@t-online.de>
Message-ID: <cn2ptt$k73$02$1@news.t-online.com>
Source record: 22243
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

Paul Burridge schrieb:

> The power company run a line to my house. They supply me with
> electricity. This amounts to a 230V, 65A facility at the distribution
> board in a cupboard under the stairs. I run all my stuff from that
> board. The board contains several RCBOs that trip-out in the event of
> any leakage current being sensed. If current in = current out; they're
> happy and won't trip. Because they don't trip out, I conclude I don't
> use any current.
> The voltage supplied is 230VAC RMS. Since this is alternating between
> equal positive and negative half-cycles, the average level of this
> voltage supply is zero.
> I use no current and they effectively supply no voltage. Why do I get
> billed for electricity usage when I clearly can't have used any?

Because free energy is against one of the laws of thermodynamics - can't
remember which...
As everybody knows, you get fined for doing illegal things ;)
That's what your power company is doing.

Regards
Markus

3561. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-12 16:53:53 UTC
From: Markus Mandl <Mandl-Bayreuth@t-online.de>
Message-ID: <cn2q3u$kh7$02$1@news.t-online.com>
Source record: 22244
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

Bob Stephens schrieb:

> On Fri, 12 Nov 2004 13:42:19 +0000, Paul Burridge wrote:
>
>
>>The power company run a line to my house. They supply me with
>>electricity. This amounts to a 230V, 65A facility at the distribution
>>board in a cupboard under the stairs. I run all my stuff from that
>>board. The board contains several RCBOs that trip-out in the event of
>>any leakage current being sensed. If current in = current out; they're
>>happy and won't trip. Because they don't trip out, I conclude I don't
>>use any current.
>>The voltage supplied is 230VAC RMS. Since this is alternating between
>>equal positive and negative half-cycles, the average level of this
>>voltage supply is zero.
>>I use no current and they effectively supply no voltage. Why do I get
>>billed for electricity usage when I clearly can't have used any?
>
>
> What you want to do is take an extension cord, plug it into an outlet on
> one side of the house, and plug the other end into an outlet on the other
> side (carefully observing polarity), thereby sending their own electricity
> back to them, running the wattmeter backwards and nulling out any billable
> KWH.
>
>
> Bob
>
> BTW, just in case, this is a *JOKE*, and it wasn't me telling it.

It might just work if you plug it into your neighbour's house...

Markus

3562. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-12 17:09:35 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <f8r9p0p7a6goio7mvpr4fgl2oc412980i6@4ax.com>
Source record: 22245
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Fri, 12 Nov 2004 16:48:00 GMT, donaldun@spamfreepearce.uk.com (Don Pearce) wrote:

>Aww c'mon - if you multiply a positive voltage by a positive current
>you get positive power. If you multiply negative voltage by negative
>current you get positive power.

Sorry, Don, you obviously haven't thought this through. Since *all* their current is returned, I cannot have used *any* of it. Whatever the voltage might be, multiplying it by zero Amps still gives zero power!

>Anyway - are you cleaning and refurbishing those amps before you give
>them back?

Why should I? That's *their* job. I pay enough!

>They wear out, you know.

You mean they like lose their charge after a while? That would make sense as I've found as years have gone by, I've had to turn the heating up more and more. The thieving bastards!

--

"What is now proved was once only imagin'd." - William Blake, 1793.

3563. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-12 17:17:57 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <okr9p0hed5dml71pdvqlkg3ta44h3e78ua@4ax.com>
Source record: 22246

On 12 Nov 2004 16:34:12 GMT, troglodite@aol.com (Troglodite) wrote:

>The way it was explained to me, the electric company sends you the stuff on one
>wire, but it goes right back to them on the other wire. You should only be
>paying a small rental fee, as you don't get to keep any of it, and they keep
>re-selling the same electricity back to you and everyone else.
>
>Doug Moore KB9TMY

Thanks, Doug. I'm glad *someone* here has some sense!
And another thing: many of us here in Britland use earthed neutrals,
so the power co. gets it's current back via earth alone. I don't mind
my own current being returned via my own garden, but why the hell
should everybody else's' current pass through my land en route back to
the power station? If the telephone company wanted to run a line over
my property, they'd have to pay me for the privilege (it's called a
"wayleave") but the power co. are paying me *nothing* for all the
other customers' earth returns running via my garden. What a rip off!

--

"What is now proved was once only imagin'd." - William Blake, 1793.

3564. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-12 17:55:13 UTC
From: John Fields <jfields@austininstruments.com>
Message-ID: <cus9p0dot0kgql7uv6icmgjoe58ks61jih@4ax.com>
Source record: 22247
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Fri, 12 Nov 2004 17:09:35 +0000, Paul Burridge
<pb@notthisbit.osiris1.co.uk> wrote:

>Sorry, Don, you obviously haven't thought this through. Since *all*
>their current is returned, I cannot have used *any* of it. Whatever
>the voltage might be, multiplying it by zero Amps still gives zero
>power!

That's not how they do it.

Since they know that they'll get back every bit of current they send
you, they keep track of what they send you for three months, normalize
it to 1 and call it "a", call what you send them back "b", and then do
the followwing maths:

normalize a:
a = 1

set b = a:
a = b

multiply both sides by a:
aï¿½ = ab

subtract bï¿½ from both sides:
aï¿½ - bï¿½ = ab - bï¿½

factor both sides:
(a + b)(a - b) = b (a - b)

divide both sides by (a - b):
(a + b)(a - b) = b (a - b)
-------------- -----------
(a - b) (a - b)

remove terms which cancel ((a -b)) from both sides:
a + b = b

convert:
1 + 1 = 1

So, you can see that the sum of the amount they sent you and the
amount they received back _has_ to be the same as the amount they sent
you, and that's what they bill you for.

--
John Fields

3565. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-12 17:57:27 UTC
From: Luhan Monat <fake@you.out>
Message-ID: <BQ6ld.99325$kz3.36721@fed1read02>
Source record: 22148
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

Paul Burridge wrote:
> The power company run a line to my house.

Hey, maybe I can make the same argument to my water/sewage provider???

--
Luhan Monat: luhanis(at)yahoo(dot)com
http://members.cox.net/berniekm
"The Future is not what it used to be..."

3566. Who has got any experience with InfoRelation (for Tim Kelly)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-12 18:49:19 UTC
From: inforelation11@yahoo.com
Message-ID: <4f415a5d.0411121049.302451ab@posting.google.com>
Source record: 22158

Hallo,

I think that everybody will agree that InfoRelation is a very useful proposal. Thanks to this service I was able to finish my academic project in field of biology. Also I can recommend InfoRelation for those who would like to earn some extra money (I have checked it and it works ;-))!

Sally Finch

3567. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-12 19:07:21 UTC
From: Me <Me@shadow.orgs>
Message-ID: <Me-E33973.10073312112004@netnews.worldnet.att.net>
Source record: 22149
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

In article <bre9p0t3e6vf6asvtcd9mk98of084siu4u@4ax.com>,
Paul Burridge <pb@notthisbit.osiris1.co.uk> wrote:

> I use no current and they effectively supply no voltage. Why do I get
> billed for electricity usage when I clearly can't have used any?

Because your a Dufus, and you deserve to PAY.......

Me

3568. RF Oscillators Short Course by John Plastonek

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-12 20:59:45 UTC
From: Joel Kolstad <JKolstad71HatesSpam@Yahoo.Com>
Message-ID: <5-adnZATcl64uQjcRVn-vQ@comcast.com>
Source record: 22150

[I originally posted this two and a half years ago... we'll see if I have any better results this time...]

Hi,

Has anybody heard of the booklet, "RF Oscillator Circuit Analysis and Design with Breadboard Experiments" or of its author, one John Plastonek? I purchased a copy of this booklet back in 1999 from an ad in the back of Nuts & Volts and really like it. For me, Plastonek hits just the right blend information, and having breadboardable circuit designs that have all the components values calculated is a tremendous benefit compared to textbooks that leave it up to you to bridge the gap between theory and practice.

Unfortunately his company, listed as "RFLS, P.O. Box 9185, Gaithersburg, MD 20898-9185, phone (301) 528-6671" is no longer around, and his e-mail address of efls@wordlnet.att.net just bounces. The reason I care is that the last page of this book claims there are -- or would be -- other booklets titled:

"Crystal Oscillator Circuit Analysis and Design with Breadboard Experiments"
"RF Receiver Circuit Analysis and Design with Breadboard Experiments"
"Frequency Synthesizer Circuit Analysis and Design with Breadboard Experiments"
"RF Amplifier Circuit Analysis and Design with Breadboard Experiments"

...and I'd very much like to obtain copies of them if they actually ever did see the light of day.

Does anyone know whatever might have happened to Mr. Plastonek and his booklets?

Thanks,
---Joel Kolstad

3569. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-12 23:08:47 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <jigap0l8artc6re4q0qgbmbqm4ivro2f0d@4ax.com>
Source record: 22151
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Fri, 12 Nov 2004 10:57:27 -0700, Luhan Monat <fake@you.out> wrote:

>Paul Burridge wrote:
>> The power company run a line to my house.
>
>Hey, maybe I can make the same argument to my water/sewage provider???

Certainly. If your "out pipe" is the same diameter as your "in pipe."
;->

--

"What is now proved was once only imagin'd." - William Blake, 1793.

3570. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-12 23:18:28 UTC
From: Rich The Philosophizer <null@example.net>
Message-ID: <pan.2004.11.12.22.23.51.526422@neodruid.org>
Source record: 22152
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Fri, 12 Nov 2004 13:42:19 +0000, Paul Burridge wrote:

> The power company run a line to my house. They supply me with
> electricity. This amounts to a 230V, 65A facility at the distribution
> board in a cupboard under the stairs. I run all my stuff from that
> board. The board contains several RCBOs that trip-out in the event of
> any leakage current being sensed. If current in = current out; they're
> happy and won't trip. Because they don't trip out, I conclude I don't
> use any current.
> The voltage supplied is 230VAC RMS. Since this is alternating between
> equal positive and negative half-cycles, the average level of this
> voltage supply is zero.
> I use no current and they effectively supply no voltage. Why do I get
> billed for electricity usage when I clearly can't have used any?

Please forgive my naivete, but this is a joke, right?

Thanks,
Rich

3571. Amateur & PMR

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-12 23:37:40 UTC
From: Goetz <goetz@goetz-von.com>
Message-ID: <cn3hg3$ac2$1@titan.btinternet.com>
Source record: 22153

Hi,

You may already be aware that a new Two Way Radio Forum has been launched at www.euronium.de

This Free to use Forum for Radio Amateurs and other Two Way Radio Users including PMR Users has no advertisements, pop-ups or trade sponsorships and is funded entirely by Radio Amateurs at www.euronium.de for the benefit of all Two Way Radio users, sections for all brands of radio include a mods area, help area, modes area, buy and sell and other interesting forums. Please pay a visit, register and help make this new Forum a success.

Very kind regards,

G�etz

www.euronium.de

3572. Re: Why do I get electricity bills? (another thought-provoking metaphysical c...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-13 00:15:19 UTC
From: n2ey@aol.comSPAMNO
Message-ID: <20041112191519.00252.00000098@mb-m17.aol.com>
Source record: 22154

In article <bre9p0t3e6vf6asvtcd9mk98of084siu4u@4ax.com>, Paul Burridge <pb@notthisbit.osiris1.co.uk> writes:

>I use no current and they effectively supply no voltage. Why do I get
>billed for electricity usage when I clearly can't have used any?

Simple.

Electrons come into your house (supplied by the utility) and then they go back out.

You don't buy them - you just pay rent for the time you have them.

73 de Jim, N2EY

3573. Re: Why do I get electricity bills? (another thought-provoking metaphysical c...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-13 00:29:05 UTC
From: dplatt@radagast.org
Message-ID: <10palah78igl295@corp.supernews.com>
Source record: 22155

In article <20041112191519.00252.00000098@mb-m17.aol.com>,
N2EY <n2ey@aol.comSPAMNO> wrote:

>>I use no current and they effectively supply no voltage. Why do I get
>>billed for electricity usage when I clearly can't have used any?
>
>Simple.
>
>Electrons come into your house (supplied by the utility) and then they go back
>out.
>
>You don't buy them - you just pay rent for the time you have them.

Well, you have 'em in your house whether they're being pumped around,
or not.

It's more like a turnpike - you pay for the amount of distance driven,
times the number of vehicles that you drive. Doesn't matter whether
you're driving north, south, or north-and-then-south again. You
drive, you burn gas, you pay the toll.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

3574. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-13 00:37:28 UTC
From: **THE-RFI-EMI-GUY** <rhyolite@nettally.com>
Message-ID: <cn3kut$2lc$1@news.utelfla.com>
Source record: 22156

Paul Burridge wrote:

>On 12 Nov 2004 16:34:12 GMT, troglodite@aol.com (Troglodite) wrote:
>
>
>
>>The way it was explained to me, the electric company sends you the stuff on one
>>wire, but it goes right back to them on the other wire. You should only be
>>paying a small rental fee, as you don't get to keep any of it, and they keep
>>re-selling the same electricity back to you and everyone else.
>>
>>Doug Moore KB9TMY
>>
>>
>
>Thanks, Doug. I'm glad *someone* here has some sense!
>And another thing: many of us here in Britland use earthed neutrals,
>so the power co. gets it's current back via earth alone. I don't mind
>my own current being returned via my own garden, but why the hell
>should everybody else's' current pass through my land en route back to
>the power station? If the telephone company wanted to run a line over
>my property, they'd have to pay me for the privilege (it's called a
>"wayleave") but the power co. are paying me *nothing* for all the
>other customers' earth returns running via my garden. What a rip off!
>
>
>
Paul; You could drive ground rods into opposite corners of your property
and extract some of the power from the earth and run your house for
nothing at all! In fact If you dig a deep enough trench in the middle,
you could isolate the ground and get a bigger return current!

--
Joe Leikhim K4SAT
"The RFI-EMI-GUY"

The Lost Deep Thoughts By: Jack Handey
Before a mad scientist goes mad, there's probably a time
when he's only partially mad. And this is the time when he's
going to throw his best parties.

3575. Re: Looking for roller inductors

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-13 01:03:53 UTC
From: RCM <rkmr15203@yahoo.com>
Message-ID: <cn3mae$2jb4$1@news.aspstation.net>
Source record: 22160

Try: http://orenelliottproducts.com/variable.htm -- Never bought any...Good Luck... K2RK

ON5MJ wrote:
> Hello there,
>
> Is this kind of inductors still for sale or still build ? I would like to
> buy two identical roller inductors of about 20 to 30 ï¿½H for an antenna
> tuner. Does somebody know where I can buy them. In the US or in Europe, no
> matter.
>
> 73 de ON5MJ - Jacques.
>
>

3576. Re: Looking for roller inductors

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-13 02:12:41 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <t4eld.149312$df2.42254@edtnps89>
Source record: 22159

I stumbled across a few at surplus outlets, I'll see if I can dig up
URL's. $50 to $150 USD, depending on KW rating.

You can build your own fairly simple though, for a lot less :-)

--
Gregg t3h g33k
"Ratings are for transistors....tubes have guidelines"
http://geek.scorpiorising.ca

3577. Re: Looking for roller inductors

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-13 03:04:30 UTC
From: John Smith <kd5yikes@mindspring.com>
Message-ID: <2Reld.25177$KJ6.12305@newsread1.news.pas.earthlink.net>
Source record: 22161

"Gregg" <nospam@unknown.org> wrote in message
news:t4eld.149312$df2.42254@edtnps89...
>I stumbled across a few at surplus outlets, I'll see if I can dig up
> URL's. $50 to $150 USD, depending on KW rating.
>
> You can build your own fairly simple though, for a lot less :-)
>
> --
> Gregg t3h g33k
> "Ratings are for transistors....tubes have guidelines"
> http://geek.scorpiorising.ca

Wup! Wade-a-minit! You can't go away without telling us how to build our own fairly simply for a lot less.

Please.

John
KD5YI

3578. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-13 04:26:52 UTC
From: billb@eskimo.com
Message-ID: <2251b4e6.0411122026.55aaf50f@posting.google.com>
Source record: 22165
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

Paul Burridge <pb@notthisbit.osiris1.co.uk> wrote in message
news:<bre9p0t3e6vf6asvtcd9mk98of084siu4u@4ax.com>...
> The power company run a line to my house. They supply me with
> electricity. This amounts to a 230V, 65A facility at the distribution
> board in a cupboard under the stairs. I run all my stuff from that
> board. The board contains several RCBOs that trip-out in the event of
> any leakage current being sensed. If current in = current out; they're
> happy and won't trip. Because they don't trip out, I conclude I don't
> use any current.

Two things flow along wires: charge and energy. The energy flows fast,
while the charges flow slowly. The charges flow in a complete circle
(you don't use any up,) while the energy is absorbed by your appliances.

OK, here's the big question: which one is the electricity?

If an electric current is a flow of electricity, then "electricity" is
not energy, and the utility companies neither produce nor sell any
electricity.

It all depends on how we define the word "electricity." And unfortunately
the reference books don't agree with each other. Some books follow
the scientists of old, and define electricity as charge (so a quantity of
electricity is measured in coulombs, and a flow of electricity is measured
in amperes.) Other reference books ignore that definition, and instead
they insist that electricity is energy... so a flow of electricity is
measured in watts, not amps.

> The voltage supplied is 230VAC RMS. Since this is alternating between
> equal positive and negative half-cycles, the average level of this
> voltage supply is zero.
> I use no current and they effectively supply no voltage. Why do I get
> billed for electricity usage when I clearly can't have used any?

The path for electric current is CIRCULAR. For every bit of charge that
the electric companies force into your appliances, an equal amount of
charge goes back out through the other wire. The current is also
oscillating (the charges don't actually flow, instead they vibrate
back and forth over extremely tiny distances.)

On the other hand, the path for electrical energy is one way. The
electric companies send electromagnetic energy over enormous distances.
It's this energy which your appliances consume. Unfortunately for
our definition of "electricity," this energy is composed of electric and

magnetic fields, and it travels in the space surrounding the wires. Do we really want to state that electricity is made of EM fields? Do we really want to say that no electricity travels inside of wires, but instead it travels in the space outside? If we say that electricity is a form of energy, that's the same as saying that electricity is just some travelling waves of electromagnetic field.

Possible solution: never use the word electricity at all. If you want to say that electrical energy flows along a circuit, then say exactly that. If you want to talk about flows of charge, then speak of charge and not "electricity." As long as we never mention the word "electricity," then amperes and watts are no longer mistaken for each other, and we can get on with explaining the joules and coulombs in ways that make sense.

3579. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-13 04:39:14 UTC
From: Ross Herbert <rherber1@bigpond.net.au>
Message-ID: <7h3bp055sh4n5fjjk13cq04jsdmrbh7ucp@4ax.com>
Source record: 22162
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Fri, 12 Nov 2004 13:56:34 GMT, donaldun@spamfreepearce.uk.com (Don Pearce) wrote:

>On Fri, 12 Nov 2004 13:42:19 +0000, Paul Burridge
><pb@notthisbit.osiris1.co.uk> wrote:
>
>>The power company run a line to my house. They supply me with
>>electricity. This amounts to a 230V, 65A facility at the distribution
>>board in a cupboard under the stairs. I run all my stuff from that
>>board. The board contains several RCBOs that trip-out in the event of
>>any leakage current being sensed. If current in = current out; they're
>>happy and won't trip. Because they don't trip out, I conclude I don't
>>use any current.
>>The voltage supplied is 230VAC RMS. Since this is alternating between
>>equal positive and negative half-cycles, the average level of this
>>voltage supply is zero.
>>I use no current and they effectively supply no voltage. Why do I get
>>billed for electricity usage when I clearly can't have used any?
>
>You don't get billed for current, you get billed for energy - in the
>UK the measure is the kilowatt hour. Multiply your voltage by your
>current instant by instant, take the average (gives you power) and
>multiply that by the duration in hours and you have your consumption.
>

Er, ????

You get billed for "Power Consumed" which is covered under the umbrella of "Energy". Now POWER is consumed when a voltage potential causes a current to flow in a circuit. If that circuit happens to be through a heater or refrigerator then CURRENT flows. Since the supply voltage is constant (or should be) then the load requirement determines the current which flows and in some cases it will be small and in others it will be large. Now since CURRENT x VOLTAGE = POWER, you do get charged for CURRENT usage and the amount you get charged varies dependant upon how much current flows and for how long.

3580. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-13 04:58:46 UTC
From: Ross Herbert <rherber1@bigpond.net.au>
Message-ID: <544bp0tqvv0r7l3vdt9141dnggg1kfnd5k@4ax.com>
Source record: 22163
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Fri, 12 Nov 2004 17:09:35 +0000, Paul Burridge
<pb@notthisbit.osiris1.co.uk> wrote:

>On Fri, 12 Nov 2004 16:48:00 GMT, donaldun@spamfreepearce.uk.com (Don
>Pearce) wrote:
>
>>Aww c'mon - if you multiply a positive voltage by a positive current
>>you get positive power. If you multiply negative voltage by negative
>>current you get positive power.
>
>Sorry, Don, you obviously haven't thought this through. Since *all*
>their current is returned, I cannot have used *any* of it. Whatever
>the voltage might be, multiplying it by zero Amps still gives zero
>power!

Paul, perhaps you should be a politician...

What you are charged for is the use of the current as it flows through your appliances etc. Because the current flows in your appliances it places a load on their generating plant. Because millions of houses are also doing the same thing at the same time the load on the generating plant is enormous and in order to supply the large amount of current required by all users (yes, even though they do get it back in the return feed), the generating plant has to be enormous itself. Now, power stations aren't something you pick off a tree, they have to be built and maintained and they consume "energy" in order to be able to generate the large amount of current which flows.

Now even a dill can see that the cost of building and running the plant has to be paid for and the cost of doing this is usually amortised over a period of 15 or 20 years and after that it is pure profit. So you are paying for the current which flows through your systems to generate heat, cool and cook your food, run your stereo etc, etc. Now despite your fallacious arguments about supply voltage summing to zero and the supply authority getting all their current back after having gone through your house, you can't argue that you shouldn't be charged purely for no other reason than the law stating the conservation of energy.

"Energy can neither be created nor destroyed, but may only be changed from one form to another."

The supply authority is changing one form of energy to another in order to generate electrical energy and you are changing the energy

they supply into other forms required to generate heat, cooling etc in your household. I can tell you this, converting energy from one form to another doesn't come free and not even a politician would be stupid enough to believe that it does.

>
>>Anyway - are you cleaning and refurbishing those amps before you give
>>them back?
>
>Why should I? That's *their* job. I pay enough!
>
>>They wear out, you know.
>
>You mean they like lose their charge after a while? That would make
>sense as I've found as years have gone by, I've had to turn the
>heating up more and more. The thieving bastards!

3581. Re: Looking for roller inductors

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-13 05:08:06 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10pb5lhrp4kd189@corp.supernews.com>
Source record: 22164

John Smith wrote:
> "Gregg" <nospam@unknown.org> wrote in message
> news:t4eld.149312$df2.42254@edtnps89...
>
>>I stumbled across a few at surplus outlets, I'll see if I can dig up
>>URL's. $50 to $150 USD, depending on KW rating.
>>
>>You can build your own fairly simple though, for a lot less :-)
>>
>>--
>>Gregg t3h g33k
>>"Ratings are for transistors....tubes have guidelines"
>>http://geek.scorpiorising.ca
>
>
>
> Wup! Wade-a-minit! You can't go away without telling us how to build our own
> fairly simply for a lot less.
>
> Please.
>
> John
> KD5YI
>
>
>
Indeed -- directions or a URL.

Please oh please.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

3582. Re: Looking for roller inductors

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-13 05:59:54 UTC
From: Leon Heller <leon_heller@hotmail.com>
Message-ID: <4195a2db$0$16437$cc9e4d1f@news-text.dial.pipex.com>
Source record: 22166

"Gregg" <nospam@unknown.org> wrote in message
news:t4eld.149312$df2.42254@edtnps89...
>I stumbled across a few at surplus outlets, I'll see if I can dig up
> URL's. $50 to $150 USD, depending on KW rating.
>
> You can build your own fairly simple though, for a lot less :-)

An old-timer I used to know made his own from plastic drain pipe. He used a lathe for cutting a spiral grove in the pipe for the wire, and machined most of the other parts himself.

73, Leon

3583. Re: Looking for roller inductors

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-13 06:14:29 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10pb9i118si3e2a@corp.supernews.com>
Source record: 22167

Leon Heller wrote:
> "Gregg" <nospam@unknown.org> wrote in message
> news:t4eld.149312$df2.42254@edtnps89...
>
>>I stumbled across a few at surplus outlets, I'll see if I can dig up
>>URL's. $50 to $150 USD, depending on KW rating.
>>
>>You can build your own fairly simple though, for a lot less :-)
>
>
> An old-timer I used to know made his own from plastic drain pipe. He used a
> lathe for cutting a spiral grove in the pipe for the wire, and machined most
> of the other parts himself.
>
> 73, Leon
>
>
I'm not sure I'd qualify anything requiring a machine lathe as being
"simple".

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

3584. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-13 06:59:38 UTC
From: "Carl D. Smith" <cdsmith69NOSPAM@earthlink.net>
Message-ID: <kgbbp05qs55frdeua2qt50i4k0j746j8ra@4ax.com>
Source record: 22168
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Fri, 12 Nov 2004 09:57:13 -0600, John Fields
<jfields@austininstruments.com> wrote:

>For a purely resistive load, since P = Iï¿½R, the sign of the current
>going into the load gets squared, so that when it goes in negative it
>comes out positive.

Seems like there's an opportunity for free energy kooks there.
Put positive and negative current in alternately, averaging zero,
but get all positive power. :-)

3585. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-13 08:21:49 UTC
From: Ian Jackson <IanJacksonRemoveThisBit@g3ohx.demon.co.uk>
Message-ID: <iry3cNEdQclBFwR6@g3ohx.demon.co.uk>
Source record: 22169
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

>On Fri, 12 Nov 2004 17:09:35 +0000, Paul Burridge
><pb@notthisbit.osiris1.co.uk> wrote:
>
>
>What you are charged for is the use of the current as it flows through
>your appliances etc.

You are not charged for using it. You are charged for BORROWING it.
Ian.
--

3586. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-13 11:15:50 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10pbr7f3vkflqbf@corp.supernews.com>
Source record: 22170
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

Ian Jackson wrote:
>
>> On Fri, 12 Nov 2004 17:09:35 +0000, Paul Burridge
>> <pb@notthisbit.osiris1.co.uk> wrote:
>>
>>
>> What you are charged for is the use of the current as it flows through
>> your appliances etc.
>
>
> You are not charged for using it. You are charged for BORROWING it.
> Ian.

Yes, there's an extra fee if you keep any half cycles without returning them on the following half cycles. It's called the Semi-Unused Cycle Kinetic Electricity Return fee.

Roy Lewallen, W7EL

3587. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-13 11:39:56 UTC
From: Alf Beta <a@b.com>
Message-ID: <cn4rqc$4gn$1@enyo.uwa.edu.au>
Source record: 22172
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

In rec.radio.amateur.homebrew Roy Lewallen <w7el@eznec.com> wrote:
> Ian Jackson wrote:
>>
>>> On Fri, 12 Nov 2004 17:09:35 +0000, Paul Burridge
>>> <pb@notthisbit.osiris1.co.uk> wrote:
>>>
>>>
>>> What you are charged for is the use of the current as it flows through
>>> your appliances etc.
>>
>>
>> You are not charged for using it. You are charged for BORROWING it.
>> Ian.
>
> Yes, there's an extra fee if you keep any half cycles without returning
> them on the following half cycles. It's called the Semi-Unused Cycle
> Kinetic Electricity Return fee.
>
> Roy Lewallen, W7EL

Be thankful that you have ac power coming to your home. Back in my days in the old country, I used to walk 5 miles through snow and sludge in the middle of winter to go to the next village to buy a couple of batteries so that my father can listen to his nightly stories on our wireless. :P

--
Alf Beta.

3588. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-13 11:42:11 UTC
From: Scott <acepilot@bloomer.net>
Message-ID: <R5adnVs508-CbwjcRVn-oQ@bright.net>
Source record: 22171
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

Huh? It's only 5:30AM here and I just got up but, the ONLY time you aren't consuming power is at the zero crossing of the voltage and current sine waves (assuming a purely resistive load where I and E are in phase). Since you are paying for power, which is P=I X E, during the negative half cycle, you have, for example, -168 Volts X -1 Amp = +168 Watts...try it on a calculator...negative times a negative is positive.

Scott

Paul Burridge wrote:
> On Fri, 12 Nov 2004 13:56:34 GMT, donaldun@spamfreepearce.uk.com (Don
> Pearce) wrote:
>
>
>>You don't get billed for current, you get billed for energy - in the
>>UK the measure is the kilowatt hour.
>
>
> Hey, whose side are you on? ;-)
>
>
>>Multiply your voltage by your
>>current instant by instant, take the average (gives you power) and
>>multiply that by the duration in hours and you have your consumption.
>
>
> They don't bill me instant-by-instant; they bill me for the power they
> claim I've used over the course of a three-monthly period. Since power
> is the product of voltage and current (and I've proved earlier that
> both are zero) I'm being charged for electricity that I've not
> actually used. The current goes in and out of the house unchanged.
> It's all returned to the power company. All I've done is borrow it.
> And you can bet that when they get their current back they don't just
> dump it to ground; oh no. They re-sell it again and again and again to
> other suckers like me. We're all paying multiple sums for the *same*
> lousy current that's probably been circulating for years.
> The power companies have been scamming us for decades! I can't believe
> I've only just woken up to it.
>

3589. Re: Looking for roller inductors

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-13 11:47:11 UTC
From: Leon Heller <leon_heller@hotmail.com>
Message-ID: <4195f440$0$1558$cc9e4d1f@news-text.dial.pipex.com>
Source record: 22173

"Tim Wescott" <tim@wescottnospamdesign.com> wrote in message
news:10pb9i118si3e2a@corp.supernews.com...
> Leon Heller wrote:
>> "Gregg" <nospam@unknown.org> wrote in message
>> news:t4eld.149312$df2.42254@edtnps89...
>>
>>>I stumbled across a few at surplus outlets, I'll see if I can dig up
>>>URL's. $50 to $150 USD, depending on KW rating.
>>>
>>>You can build your own fairly simple though, for a lot less :-)
>>
>>
>> An old-timer I used to know made his own from plastic drain pipe. He used
>> a lathe for cutting a spiral grove in the pipe for the wire, and machined
>> most of the other parts himself.
>>
>> 73, Leon
> I'm not sure I'd qualify anything requiring a machine lathe as being
> "simple".

It is if one has a lathe. 8-)

Strictly speaking, he wasn't making roller inductors, anyway, as the contact
was moving across the turns giving one turn resolution, like a rheostat. He
only used QRP. Making a proper roller inductor for high power like those
made by Henry would be quite difficult.

73, Leon

3590. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-13 11:51:48 UTC
From: Scott <acepilot@bloomer.net>
Message-ID: <pK6dnQ_FMr_CaQjcRVn-2g@bright.net>
Source record: 22174
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

Well, you can look at it this way...It's basically a series circuit, from generator, through all customer houses, and back to the generator. You may be returning ALMOST all of the current coming into your house, minus resistive losses, but if you divert that voltage and current through one of your appliances, the voltage and current (hence power) will actually be doing some work. Electricity, while being USED in your house, is like an employee of YOURS...it is doing WORK, so legally you must pay the worker's wages for work performed. Just be glad you don't have to pay it's social security taxes, fed and state taxes, health insurance, worker's comp insurance premiums, 401K contributions, etc. Starts to make electricity (employee) sound cheap.

Scott

Paul Burridge wrote:

>
> Sorry, Don, you obviously haven't thought this through. Since *all*
> their current is returned, I cannot have used *any* of it. Whatever
> the voltage might be, multiplying it by zero Amps still gives zero
> power!
>
>

3591. Re: A transformer too far??

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-13 12:54:47 UTC
From: "Gary S." <Idontwantspam@net>
Message-ID: <i90cp05o0kohmq8mlu2cbgod9f2j0f0sl7@4ax.com>
Source record: 22175

On Tue, 9 Nov 2004 11:30:44 -0600, "Steve Nosko"
<suteuve.nosukowicuz@moutouroula.com> wrote:

>
>"Paul Burridge" <pb@notthisbit.osiris1.co.uk> wrote in message
>news:moq1p0pts6o9acqcsbetkuiu8c00l1f71v@4ax.com...
>> Hi guys,
>>
>> Check this out:
>>
>>
>http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=42881&item=3851533536&rd=1
>>
>> Is this type of transformer of any use to the serious radio amateur,
>> or is it just *way* over the top?
>
>
>Sure. *IF* you like sparks around your rig. Make a Jacob's Ladder, etc.
>Lotsa volts, don't need to much ma.
>This thing belongs on rec.electronics.how.big.can.i.make.a.spark
>
>There are guys who make REALLY BIG Tesla coils. I'm talkin' make your own
>capacitors, 5-7 feet tall, light the neighbor's florescent bulbs big!
>
>I kept the ignition transformer from my mother-in-laws oil furnace when
>converted to gas. There's quite a bit of power there. The tips of my
>Jacob's Ladder heated enough to melt the plastic tube I had it in...and they
>barely touch it.

The Museum of Science in Boston has a bunch of similar toys in their
Thomson Theater of Electricity. http://www.mos.org/sln/toe

The large Tesla Coil they have is rather large, 8 feet tall and 4 feet
across. The smaller ones are 75,000 volts.

They also have a two story high Van de Graff generator.

They do regular demos of all this several times each day.

The website above includes a picture gallery.

Happy trails,
Gary (net.yogi.bear)
---
at the 51st percentile of ursine intelligence

Gary D. Schwartz, Needham, MA, USA
Please reply to: garyDOTschwartzATpoboxDOTcom

3592. FA: Small lots of coax connectors + more

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-13 14:12:55 UTC
From: Heytubeguy <heytubeguy@worldnet.att.net>
Message-ID: <HDold.896603$Gx4.410093@bgtnsc04-news.ops.worldnet.att.net>
Source record: 22176

See at

http://search.ebay.com/_W0QQgotopageZ1QQsassZheytubeguyQQsorecordsperpageZ25QQsosortorderZ1QQsosortpropertyZ1

tnx for looking, heytubeguy

3593. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-13 14:34:11 UTC
From: john jardine <john@jjdesigns.fsnet.co.uk>
Message-ID: <cn58erlfg1@newsg4.svr.pol.co.uk>
Source record: 22180
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

"William J. Beaty" <billb@eskimo.com> wrote in message
news:2251b4e6.0411122026.55aaf50f@posting.google.com...
> Paul Burridge <pb@notthisbit.osiris1.co.uk> wrote in message
news:<bre9p0t3e6vf6asvtcd9mk98of084siu4u@4ax.com>...
>
> On the other hand, the path for electrical energy is one way. The
> electric companies send electromagnetic energy over enormous distances.
> It's this energy which your appliances consume. Unfortunately for
> our definition of "electricity," this energy is composed of electric and
> magnetic fields, and it travels in the space surrounding the wires.
> Do we really want to state that electricity is made of EM fields?
> Do we really want to say that no electricity travels inside of wires,
> but instead it travels in the space outside? If we say that electricity
> is a form of energy, that's the same as saying that electricity is
> just some travelling waves of electromagnetic field.
>
Yes please, guided energy!. It seems fathomable and sits easily amongst
waveguides, aerials, lightbulbs and triphasic conduit.
Electrons have a bit of weight. If you spin a metal disc at the power
station fast enough, then all the electrons in it should centrifuge out and
crowd towards the outer edge leaving no electrons in the middle. The
electrons aren't happy being herded onto the outer rim and really just want
to hang out and chew the cud. The potential to do work has thus been stored,
just like in a flywheel.
Paul switches on his TV and gives them a route back to the disc centre. The
stored disc energy is immediately translated in his TV to heat, light and
sound as the electrons all work through to become nonentities again.
The power station people don't like this as all their patiently herded
electrons have escaped, the disc has slowed a tad and they have to raise
more steam to maintain speed and herd more electrons. Hence will charge
Paul handsomely for his profligacy.
Dunno what happens in a spinning capacitor with diode connected plates
though :-)
regards
john

3594. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-13 14:54:55 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <9s7cp0luo989ildta0bienppgr38ieh4dn@4ax.com>
Source record: 22177
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Sat, 13 Nov 2004 11:42:11 +0000, Scott <acepilot@bloomer.net>
wrote:

>Huh? It's only 5:30AM here and I just got up but, the ONLY time you
>aren't consuming power is at the zero crossing of the voltage and
>current sine waves (assuming a purely resistive load where I and E are
>in phase). Since you are paying for power, which is P=I X E, during the
>negative half cycle, you have, for example, -168 Volts X -1 Amp = +168
>Watts...try it on a calculator...negative times a negative is positive.

Thanks, Scott. So you're basically agreeing with me. I owe the power
co. for the positive cycles they send me; they owe *me* for the
negative ones. Since they are equal and opposite, they cancel each
other out. Overall, then, zero billing justified.
We are being conned!!!
--

"What is now proved was once only imagin'd." - William Blake, 1793.

3595. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-13 14:58:44 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <738cp0trr26s0djguvt9nn1h8bqvfmre8p@4ax.com>
Source record: 22178

On Fri, 12 Nov 2004 19:37:28 -0500, **THE-RFI-EMI-GUY**
<rhyolite@nettally.com> wrote:

>Paul; You could drive ground rods into opposite corners of your property
>and extract some of the power from the earth and run your house for
>nothing at all! In fact If you dig a deep enough trench in the middle,
>you could isolate the ground and get a bigger return current!

Well, I don't see how that could work, but I had considered digging a
trench around my boundary and thereby cutting off the return path for
the other users' behind my house and demanding payment from the power
co. to re-instate it. But then it's obvious the return current's only
going to go deeper underground or around my property. It seems there's
nothing I can do to make any dough out of this. :-(
--

"What is now proved was once only imagin'd." - William Blake, 1793.

3596. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-13 15:12:17 UTC
From: Fred Bloggs <nospam@nospam.com>
Message-ID: <4196244F.9010406@nospam.com>
Source record: 22179
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

Paul Burridge wrote:
> On Sat, 13 Nov 2004 11:42:11 +0000, Scott <acepilot@bloomer.net>
> wrote:
>
>
>>Huh? It's only 5:30AM here and I just got up but, the ONLY time you
>>aren't consuming power is at the zero crossing of the voltage and
>>current sine waves (assuming a purely resistive load where I and E are
>>in phase). Since you are paying for power, which is P=I X E, during the
>>negative half cycle, you have, for example, -168 Volts X -1 Amp = +168
>>Watts...try it on a calculator...negative times a negative is positive.
>
>
> Thanks, Scott. So you're basically agreeing with me. I owe the power
> co. for the positive cycles they send me; they owe *me* for the
> negative ones. Since they are equal and opposite, they cancel each
> other out. Overall, then, zero billing justified.
> We are being conned!!!

You might have a case if the ac feed was a single line- but the
so-called negative cycle is a relative polarity- they draw current out
of your hot connection by supplying it to the neutral. They vector sum
of the two currents they deliver is zero at all times- so you pay for
them to maintain an undulating line voltage with constant RMS magnitude
across your house.

3597. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-13 16:27:45 UTC
From: Pooh Bear <rabbitsfriendsandrelations@hotmail.com>
Message-ID: <41963601.FA1A5F88@hotmail.com>
Source record: 22181
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

Paul Burridge wrote:

> The power company run a line to my house. They supply me with
> electricity. This amounts to a 230V, 65A facility at the distribution
> board in a cupboard under the stairs.

!!!!!

> I run all my stuff from that
> board. The board contains several RCBOs that trip-out in the event of
> any leakage current being sensed. If current in = current out; they're
> happy and won't trip. Because they don't trip out, I conclude I don't
> use any current.
> The voltage supplied is 230VAC RMS.

!!!!!

> Since this is alternating between
> equal positive and negative half-cycles, the average level of this
> voltage supply is zero.
> I use no current and they effectively supply no voltage. Why do I get
> billed for electricity usage when I clearly can't have used any?

I hope you should know the answer. It involves a square term.

Have you tried measuring the voltage.

No European countries run on 230V to the best of my knowledge.

Graham

3598. FA: Heathkit IT-12 Signal Tracer with Manual

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-13 16:43:57 UTC
From: tw@emailaccount.com
Message-ID: <d7bc9941.0411130843.2b7d0abe@posting.google.com>
Source record: 22184
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

For audio and RF circuits; has speaker and "magic eye" monitor.
Includes probe and manual. Checked out and ready to use:

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3851341226

Hurry... auction ends soon.

3599. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-13 16:44:26 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <sdecp0d0stbmcodsef9m9sq5l9dlrvf2q0@4ax.com>
Source record: 22182
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Fri, 12 Nov 2004 23:18:28 GMT, Rich The Philosophizer
<null@example.net> wrote:

>Please forgive my naivete, but this is a joke, right?

It's a "thought-provoking metaphysical discussion." Care to
participate? ;-)
--

"What is now proved was once only imagin'd." - William Blake, 1793.

3600. Re: Why do I get electricity bills? (another thought-provoking metaphysical c...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-13 16:45:57 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <4hecp01n7kasjcupfa5er4arc0pr248p9h@4ax.com>
Source record: 22183

On 13 Nov 2004 00:15:19 GMT, n2ey@aol.comSPAMNO (N2EY) wrote:

>In article <bre9p0t3e6vf6asvtcd9mk98of084siu4u@4ax.com>, Paul Burridge
><pb@notthisbit.osiris1.co.uk> writes:
>
>>I use no current and they effectively supply no voltage. Why do I get
>>billed for electricity usage when I clearly can't have used any?
>
>Simple.
>
>Electrons come into your house (supplied by the utility) and then they go back
>out.
>
>You don't buy them - you just pay rent for the time you have them.

Well then I'm *definitely* being swindled; my bills make no mention of
electrons at all.
--

"What is now proved was once only imagin'd." - William Blake, 1793.

3601. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-13 17:08:25 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <jpfcp09mob1flkoo3f0c17g9apkkf2ktmj@4ax.com>
Source record: 22185
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Sat, 13 Nov 2004 16:27:45 +0000, Pooh Bear
<rabbitsfriendsandrelations@hotmail.com> wrote:

>No European countries run on 230V to the best of my knowledge.

British mains electricity used to be 240V, until the EU <spit!>
'harmonised' the level across EUrope to 230V. Unless of course, you
know better....
--

"What is now proved was once only imagin'd." - William Blake, 1793.

3602. Re: Looking for roller inductors

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-13 18:09:02 UTC
From: default <default@defaulter.net>
Message-ID: <sdjcp0plk5cgi3j8don8bs1hf672n93q3q@4ax.com>
Source record: 22186

On Fri, 12 Nov 2004 11:40:50 +0100, "ON5MJ" <my_call_sign@skynet.be>
wrote:

>Hello there,
>
>Is this kind of inductors still for sale or still build ? I would like to
>buy two identical roller inductors of about 20 to 30 ï¿½H for an antenna
>tuner. Does somebody know where I can buy them. In the US or in Europe, no
>matter.
>
>73 de ON5MJ - Jacques.
>
The January/February 2003 edition of QEX has the drawings and pictures
of a home brew antenna tuner for 7-30 MHZ with a home brew roller
inductor for the tuning element.

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

3603. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-13 18:15:44 UTC
From: John Fields <jfields@austininstruments.com>
Message-ID: <bqicp0tokuf38cv7v5u4t39l5186ovjs7s@4ax.com>
Source record: 22187
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Sat, 13 Nov 2004 14:54:55 +0000, Paul Burridge
<pb@notthisbit.osiris1.co.uk> wrote:

>On Sat, 13 Nov 2004 11:42:11 +0000, Scott <acepilot@bloomer.net>
>wrote:
>
>>Huh? It's only 5:30AM here and I just got up but, the ONLY time you
>>aren't consuming power is at the zero crossing of the voltage and
>>current sine waves (assuming a purely resistive load where I and E are
>>in phase). Since you are paying for power, which is P=I X E, during the
>>negative half cycle, you have, for example, -168 Volts X -1 Amp = +168
>>Watts...try it on a calculator...negative times a negative is positive.
>
>Thanks, Scott. So you're basically agreeing with me. I owe the power
>co. for the positive cycles they send me; they owe *me* for the
>negative ones. Since they are equal and opposite, they cancel each
>other out. Overall, then, zero billing justified.
>We are being conned!!!

EUREKA!!!

The fallacy lies in your thinking that the power company bills you for
what they send you, when in actuality what you're getting billed for
is what you send back to them!

Consider: they send you a bunch of positive and negative cycles, but
as long as you don't turn a switch on anywhere, those cycles can't
travel back to the power company, so you don't get billed for them.

However, when you do turn on a switch you're providing a way for
their electricity to get back to _them_ and stop beating it's head
against an open switch, so it seems to me that they should pay _you_
for doing them the courtesy of returning their electricity.

--
John Fields

3604. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-13 18:52:59 UTC
From: John Fields <jfields@austininstruments.com>
Message-ID: <hqlcp0t5vis8124pa00gctrc006g48tvib@4ax.com>
Source record: 22188
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

```
On Sat, 13 Nov 2004 12:15:44 -0600, John Fields
<jfields@austininstruments.com> wrote:

>On Sat, 13 Nov 2004 14:54:55 +0000, Paul Burridge
><pb@notthisbit.osiris1.co.uk> wrote:
>
>>On Sat, 13 Nov 2004 11:42:11 +0000, Scott <acepilot@bloomer.net>
>>wrote:
>>
>>>Huh? It's only 5:30AM here and I just got up but, the ONLY time you
>>>aren't consuming power is at the zero crossing of the voltage and
>>>current sine waves (assuming a purely resistive load where I and E are
>>>in phase). Since you are paying for power, which is P=I X E, during the
>>>negative half cycle, you have, for example, -168 Volts X -1 Amp = +168
>>>Watts...try it on a calculator...negative times a negative is positive.
>>
>>Thanks, Scott. So you're basically agreeing with me. I owe the power
>>co. for the positive cycles they send me; they owe *me* for the
>>negative ones. Since they are equal and opposite, they cancel each
>>other out. Overall, then, zero billing justified.
>>We are being conned!!!
>
>---
>EUREKA!!!
>
>The fallacy lies in your thinking that the power company bills you for
>what they send you, when in actuality what you're getting billed for
>is what you send back to them!
>
>Consider: they send you a bunch of positive and negative cycles, but
>as long as you don't turn a switch on anywhere, those cycles can't
>travel back to the power company, so you don't get billed for them.
>
>However, when you do turn on a switch you're providing a way for
>_their_ electricity to get back to _them_ and stop beating it's head
^^^^
Tsk, tsk, tsk... hangs head in shame _______/

>against an open switch, so it seems to me that they should pay _you_
>for doing them the courtesy of returning their electricity.

--
John Fields
```

3605. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-13 19:29:08 UTC
From: Kevin Aylward <salesEXTRACT@anasoft.co.uk>
Message-ID: <8gtld.9824$P7.6326@fe2.news.blueyonder.co.uk>
Source record: 22189
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

Paul Burridge wrote:
> On Sat, 13 Nov 2004 16:27:45 +0000, Pooh Bear
> <rabbitsfriendsandrelations@hotmail.com> wrote:
>
>> No European countries run on 230V to the best of my knowledge.
>
> British mains electricity used to be 240V, until the EU <spit!>
> 'harmonised' the level across EUrope to 230V. Unless of course, you
> know better....

I do. The UK is still 240. They didn't change the voltage, only what
they said the voltage was. Its a Yes-Minister one.

Kevin Aylward
salesEXTRACT@anasoft.co.uk
http://www.anasoft.co.uk
SuperSpice, a very affordable Mixed-Mode
Windows Simulator with Schematic Capture,
Waveform Display, FFT's and Filter Design.

3606. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-13 19:29:31 UTC
From: Kevin Aylward <salesEXTRACT@anasoft.co.uk>
Message-ID: <vgtld.9825$P7.4119@fe2.news.blueyonder.co.uk>
Source record: 22190
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

Paul Burridge wrote:
> On Sat, 13 Nov 2004 11:42:11 +0000, Scott <acepilot@bloomer.net>
> wrote:
>
>> Huh? It's only 5:30AM here and I just got up but, the ONLY time you
>> aren't consuming power is at the zero crossing of the voltage and
>> current sine waves (assuming a purely resistive load where I and E
>> are in phase). Since you are paying for power, which is P=I X E,
>> during the negative half cycle, you have, for example, -168 Volts X
>> -1 Amp = +168 Watts...try it on a calculator...negative times a
>> negative is positive.
>
> Thanks, Scott. So you're basically agreeing with me. I owe the power
> co. for the positive cycles they send me; they owe *me* for the
> negative ones. Since they are equal and opposite, they cancel each
> other out. Overall, then, zero billing justified.
> We are being conned!!!

Polarity is no more than direction of flow. They send you electrons on one lead, then electrons on the other lead, making twice the number of electrons, so you gvetting them for 1/2 price as they only count them the once:-)

Kevin Aylward
salesEXTRACT@anasoft.co.uk
http://www.anasoft.co.uk
SuperSpice, a very affordable Mixed-Mode
Windows Simulator with Schematic Capture,
Waveform Display, FFT's and Filter Design.

3607. Auction ends in 1 day! FM Stereo Broadcast Transmitter 88-108 MHz Digital PLL LCD Display - 2 Watt

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-13 19:40:38 UTC
From: righteous-jude <nospam@noreply.com>
Message-ID: <BDBBB146.4F7C%nospam@noreply.com>
Source record: 22191

FM Stereo Broadcast Transmitter
Digital PLL - LCD - 2 Watt RF Output

Ebay item # 5730774971

Auction ends in 1 day!

Ends Nov-14-04 19:13:56 PST

I have updated my Ebay auction listing to include an MP3 sound file you can download which is an ACTUAL recording of how the FM transmitter sounds on-the-air.

Here is the direct link:
[URL=http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=5730774971]http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=5730774971[/URL]

Transmitter is an assembled and tested unit -- not a kit.

This transmitter design DOES NOT use the "BA" or "Rohm" analog chip - ANYWHERE IN IT AT ALL. Which is a good thing.

This transmitter can equal the sound of commercial FM stations. It outperforms ANY of the Ramsey transmitters, including the "export" version of the FM-100B which Ramsey sells for $429.99.

You can buy this transmitter for much less than that.

Here are the specifications for this transmitter (from the manufacturer):

Transmission Frequency: Adjustable between 87-108 MHz
Tuning Steps: 10 kHz
RF Power Output: Typ 1Watt @ 13V or 2 Watts @ 24V
Spurious RF Emissions: Better than -45 dB ref. to carrier
Frequency Stability: PLL Typ +/-1KHz
SWR Ruggedness: Withstands 30:1 SWR mismatch
RF Output Connector: BNC type
Audio Input Sensitivity: 0.8V rms for +/- 75 KHz deviation
Signal To Noise Ratio: 60 dBu
Frequency Response: Flat from 20 Hz to 15 KHz
Stereo Separation: >40 dB
Pre-emphasis: 75 uS (standard FCC spec for U.S. FM radio)
Audio Distortion: Better than 0.2 % THD
Audio Input Connectors: RCA Phono Jacks
Power Jack: Coaxial type, 5.5mm O.D. 2.1mm I.D. center positive
DC Power Input: 12 to 24 Vdc Regulated 600mA

The transmitter has a built-in user options menu system with two buttons for adjusting operating parameters such as transmitting frequency, modulation level, MPX pilot level, etc.

This transmitter has a clean RF output. The design includes a seven-element Low Pass RF Filter for harmonic suppression.

This transmitter has built-in audio AGC (Automatic Gain Control). The AGC feature can be adjusted using the user options menu or you can turn it off if you like.

Operating instructions will be included with the unit.

3608. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-13 19:49:31 UTC
From: Pooh Bear <rabbitsfriendsandrelations@hotmail.com>
Message-ID: <4196654B.37F3C8D0@hotmail.com>
Source record: 22192
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

Paul Burridge wrote:

> On Sat, 13 Nov 2004 16:27:45 +0000, Pooh Bear
> <rabbitsfriendsandrelations@hotmail.com> wrote:
>
> >No European countries run on 230V to the best of my knowledge.
>
> British mains electricity used to be 240V, until the EU <spit!>
> 'harmonised' the level across EUrope to 230V. Unless of course, you
> know better....

The only thing that actually *changed* was a bit of paper.

Graham

3609. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-13 20:20:33 UTC
From: Mark Fergerson <nunya@biz.ness>
Message-ID: <B_tld.82664$G15.26639@fed1read03>
Source record: 22193
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

Paul Burridge wrote:

> The power company run a line to my house. They supply me with
> electricity. This amounts to a 230V, 65A facility at the
distribution
> board in a cupboard under the stairs. I run all my stuff
from that
> board. The board contains several RCBOs that trip-out in
the event of
> any leakage current being sensed. If current in = current
out; they're
> happy and won't trip. Because they don't trip out, I
conclude I don't
> use any current.

No, you're simply not permitting it to go to ground.
Neatness counts.

> The voltage supplied is 230VAC RMS. Since this is
alternating between
> equal positive and negative half-cycles, the average
level of this
> voltage supply is zero.

Yup. It better be zero.

> I use no current and they effectively supply no voltage.
Why do I get
> billed for electricity usage when I clearly can't have
used any?

Except you slowed down the electrons on their way through
your appliances (made them do work). Speed them back up (do
work on them) and you'll see a zero bill except for the
minimum line-maintenance fees, of course.

Mark L. Fergerson

3610. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-13 21:20:19 UTC
From: Roger Hamlett <rogerspamignored@ttelmah.demon.co.uk>
Message-ID: <nUuld.162$Wv6.38@newsfe6-win.ntli.net>
Source record: 22194
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

"Kevin Aylward" <salesEXTRACT@anasoft.co.uk> wrote in message
news:8gtld.9824$P7.6326@fe2.news.blueyonder.co.uk...
> Paul Burridge wrote:
> > On Sat, 13 Nov 2004 16:27:45 +0000, Pooh Bear
> > <rabbitsfriendsandrelations@hotmail.com> wrote:
> >
> >> No European countries run on 230V to the best of my knowledge.
> >
> > British mains electricity used to be 240V, until the EU <spit!>
> > 'harmonised' the level across EUrope to 230V. Unless of course, you
> > know better....
>
> I do. The UK is still 240. They didn't change the voltage, only what
> they said the voltage was. Its a Yes-Minister one.
It has changed a _little_ in some places. The switch was from 240v, with
tighter +/- margins, to 230v, with larger margins. The margin allowed, was
large enough, to include a normally set up 240v, or 220v system in a
country. However some areas of the network were outside these margins, and
have gradually been replaced, and on new areas, the tap change voltages,
are now designed to be closer to 230v, than 240v.
If you have incoming power monitoring equipment, you will find that
typically the voltage has fallen by a couple of volts over the last few
years.

Best Wishes

3611. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-13 22:38:44 UTC
From: Richard Henry <rphenry@home.com>
Message-ID: <X1wld.51393$SW3.43767@fed1read01>
Source record: 22195
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

"Paul Burridge" <pb@notthisbit.osiris1.co.uk> wrote in message
news:sdecp0d0stbmcodsef9m9sq5l9dlrvf2q0@4ax.com...
> On Fri, 12 Nov 2004 23:18:28 GMT, Rich The Philosophizer
> <null@example.net> wrote:
>
> >Please forgive my naivete, but this is a joke, right?
>
> It's a "thought-provoking metaphysical discussion."

No, it's not.

3612. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-13 23:46:29 UTC
From: Duncan Munro <postmaster@duncanamps.com>
Message-ID: <7n97fpn1w3gd.uzblnc67p2kh.dlg@40tude.net>
Source record: 22196
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Sat, 13 Nov 2004 19:29:08 GMT, Kevin Aylward wrote:

> Paul Burridge wrote:
>> On Sat, 13 Nov 2004 16:27:45 +0000, Pooh Bear
>> <rabbitsfriendsandrelations@hotmail.com> wrote:
>>
>>> No European countries run on 230V to the best of my knowledge.
>>
>> British mains electricity used to be 240V, until the EU <spit!>
>> 'harmonised' the level across EUrope to 230V. Unless of course, you
>> know better....
>
> I do. The UK is still 240. They didn't change the voltage, only what
> they said the voltage was. Its a Yes-Minister one.

The mains here has come down a little, it used to average around 247 before
"harmonisation", it's now averages 243. During sh**/shave/shower time it
drops marginally under 240, and again during evening meal time.

--
Duncan Munro
http://www.duncanamps.com/

3613. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-14 00:02:07 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <808dp0tc6eom8s1r2vegc8blc09b4om58g@4ax.com>
Source record: 22197
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Sat, 13 Nov 2004 12:52:59 -0600, John Fields
<jfields@austininstruments.com> wrote:

>>However, when you do turn on a switch you're providing a way for
>>_their_ electricity to get back to _them_ and stop beating it's head
> ^^^^
> Tsk, tsk, tsk... hangs head in shame _______/
>

Yes, unusual for you. Watch out for Rich.. ;-)

>>against an open switch, so it seems to me that they should pay _you_
>>for doing them the courtesy of returning their electricity.

That's a pretty solid legal argument. I'll probably incorporate it
somewhere into my Writ.

--

"What is now proved was once only imagin'd." - William Blake, 1793.

3614. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-14 00:02:47 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <k48dp0lj83pbordkg8faa00jhka94sqc5m@4ax.com>
Source record: 22098
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Sat, 13 Nov 2004 14:38:44 -0800, "Richard Henry" <rphenry@home.com>
wrote:

>
>"Paul Burridge" <pb@notthisbit.osiris1.co.uk> wrote in message
>news:sdecp0d0stbmcodsef9m9sq5l9dlrvf2q0@4ax.com...
>> On Fri, 12 Nov 2004 23:18:28 GMT, Rich The Philosophizer
>> <null@example.net> wrote:
>>
>> >Please forgive my naivete, but this is a joke, right?
>>
>> It's a "thought-provoking metaphysical discussion."
>
>No, it's not.

Audience: "Oh yes it is!"

--

"What is now proved was once only imagin'd." - William Blake, 1793.

3615. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____ egedduqy

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-14 02:02:16 UTC
From: Flintstone60@hotmail.com
Message-ID: <71a3934d.0411131802.2095c86f@posting.google.com>
Source record: 22099
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

"news" <w3jxp@adelphia.net> wrote in message news:<6Nqdnb976pxJGhPcRVn-gQ@adelphia.com>...
> Don't blame me, I didn't vote for him either time.

Many didn't...perhaps most! see: http://www.scoop.co.nz/mason/features/?s=usacoup

The only hope is America
> is a big country and he may not be able to mess it up too bad in the next 4
> years

>
>
>
> --
> John Passaneau, W3JXP
> State College, PA
>
>
>
> "Renee" <Anon@anon> wrote in message news:cmlugl$374$0@pita.alt.net...
> >
> > Mister Kerry...the election is over. It is time for you and Bruce
> > Springsteen to move on.
> >
> > <Victim_of_American_Stupidity@ivemrybi.fr> wrote in message
> > news:MPG.17f4ab9df94c@NEWS.GRADWELL.NET...
> > You blithering idiots! You re-elected that imbecile George Bush as your
> > President.
> > He's a complete moron and so are most of you!
> > -
> > Don't you care what the rest of the world thinks of you? Don't you care
> > what
> > impact
> > American foreign policy has on the rest of the planet? Does Iraq look
> > like
> > a success
> > to anyone? Doesn't it bother you that he's alienated every friend you
> > have?
> > What were you thinking???
> > -
> > Prior to this, it was American policy and the American government that was
> > so universally
> > hated around the world. Now it's going to be 'Americans' we hate. More
> > sympathy

> > for Bin Laden... More attacks on American institutions... More isolation.
> > How blind
> > can you dumb rednecks in middle-America be, not to see this?
> > -
> > If you get hit again, or your economy goes into a deep depression, the
> > American
> > people will be getting exactly what they deserve!
> > -
> > <back turned>
> > -
> > -
> > -
> > -
> > -
> > -
> > [Ignore what follows]
> > It might dream difficult pitchers, do you believe them? While
> > games globally climb lemons, the candles often wander near the
> > humble plates. Are you noisy, I mean, talking under worthwhile
> > jackets? He can smell loudly if Cathy's pool isn't ugly. How doesn't
> > Afif grasp frantically?
> >
> > What Corinne's elder carpenter plays, Courtney excuses behind
> > light, short ladders. She'd rather call simply than depart with
> > Johnny's dirty paper. When does Ghassan move so regularly, whenever
> > William orders the open fork very locally? Nowadays, it solves a
> > lentil too abysmal below her poor corner. He may truly promise
> > beside Hussein when the tired eggs recollect before the clean
> > square. There Georgette will expect the shoe, and if Rickie
> > strongly hates it too, the potter will change against the younger
> > window.
> >
> > Waleed, still dying, learns almost totally, as the cobbler fears
> > with their film. She wants to explain sticky jugs for Alhadin's
> > hall. Until Al lives the boats eerily, Jim won't seek any lost
> > doorways. My filthy draper won't attempt before I cook it.
> > It should lift sadly, unless Murray looks dusts to Henry's pickle. Try
> > shouting the night's fat cloud and Nelly will laugh you!
> >
> > Get your partly burning shirt for my fire. Just tasting inside a
> > envelope around the winter is too lazy for Mhammed to like it.
> >
> >
> >
> >

3616. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-14 02:30:47 UTC
From: Joel <Joel@Joelworld.com>
Message-ID: <rrzld.899923$Gx4.721367@bgtnsc04-news.ops.worldnet.att.net>
Source record: 22100
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

> However, when you do turn on a switch you're providing a way for
> _their_ electricity to get back to _them_ and stop beating it's head
> against an open switch, so it seems to me that they should pay _you_
> for doing them the courtesy of returning their electricity.

AH, BUT, how do _they_ know for sure _they_ are getting back the same electrons _they_ sent out?
Do the little suckers have tatoos?
Maybe I have a generator (such as my $500 combination treadmill/generator. I run damn fast) that's feeding back MY OWN homemade electrons.
As soon as I think of a way to identify my personal electrons I'm going to send them a bill. And since my electrons are of higher quality (not to mention organic) I'll charge more for them.

3617. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____ egedduqy

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-14 03:10:15 UTC
From: TBA <TBA@GOODOLEUSOFA.COM>
Message-ID: <62Ald.8639$Ae.5297@newsread1.dllstx09.us.to.verio.net>
Source record: 22101
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

Whether we wanted Bush or Kerry, makes no difference. We got who we got.
Time to put those differences aside and hope for the best. All the moaning
and groaning, bitching and complaining isn't going to change the facts of
who has claimed victory. This country needs some major remodeling and
someone - anyone - needs to roll up their sleeves and get to work.
Actually, the majority of the politicians are crooked as hell. Most of them
have been in too long.

As to the foreigners who wrote our fellow citizens trying to persuade them
who to vote for, I say BUTT OUT. You have enough trouble running your own
country - small as it is. We have gotten along 200+ years without your
input, and we'll get along another 200+ years. Yes, we have our squabbles,
and yes we may bitch and disagree... but dammit, when the shit hits the fan
as in 9/11, we get together and kick ass. WE left jolly ole England once -
we thought it was for good. Then we had to go back to save your asses. So,
kick back and relax and drink your tea. You mind the store there, we'll mind
ours - here.

IF you disagree with me, then do me and the rest of my fellow citizens a
favor........ don't ask for any more welfare.
One more thing - you hate Bush? Well... your Prime Minister is chiming along
with him, so let's see how well you do in your own election! PRACTICE WHAT
YOU PREACH. We'll be across the pond watching - not that we give a damned.
You won't see us writing any letters to your people to persuade them to vote
for anyone in particular. WE're #1, all else - pick a number. But don't
stand so close, we can't stand the stench.

TBA

(TRUE BLOODED AMERICAN)

"Fred" <Flintstone60@hotmail.com> wrote in message
news:71a3934d.0411131802.2095c86f@posting.google.com...
> "news" <w3jxp@adelphia.net> wrote in message
> news:<6Nqdnb976pxJGhPcRVn-gQ@adelphia.com>...
>> Don't blame me, I didn't vote for him either time.
>
>
>
> Many didn't...perhaps most! see:
> http://www.scoop.co.nz/mason/features/?s=usacoup
>
>

> The only hope is America
>> is a big country and he may not be able to mess it up too bad in the next
>> 4
>> years
>
>
>
>
>>
>>
>>
>> --
>> John Passaneau, W3JXP
>> State College, PA
>>
>>
>>
>> "Renee" <Anon@anon> wrote in message news:cmlugl$374$0@pita.alt.net...
>> >
>> > Mister Kerry...the election is over. It is time for you and Bruce
>> > Springsteen to move on.
>> >
>> > <Victim_of_American_Stupidity@ivemrybi.fr> wrote in message
>> > news:MPG.17f4ab9df94c@NEWS.GRADWELL.NET...
>> > You blithering idiots! You re-elected that imbecile George Bush as your
>> > President.
>> > He's a complete moron and so are most of you!
>> > -
>> > Don't you care what the rest of the world thinks of you? Don't you care
>> > what
>> > impact
>> > American foreign policy has on the rest of the planet? Does Iraq look
>> > like
>> > a success
>> > to anyone? Doesn't it bother you that he's alienated every friend you
>> > have?
>> > What were you thinking???
>> > -
>> > Prior to this, it was American policy and the American government that
>> > was
>> > so universally
>> > hated around the world. Now it's going to be 'Americans' we hate. More
>> > sympathy
>> > for Bin Laden... More attacks on American institutions... More
>> > isolation.
>> > How blind
>> > can you dumb rednecks in middle-America be, not to see this?
>> > -
>> > If you get hit again, or your economy goes into a deep depression, the
>> > American

>> > people will be getting exactly what they deserve!
>> > -
>> > <back turned>
>> > -
>> > -
>> > -
>> > -
>> > -
>> > -
>> > [Ignore what follows]
>> > It might dream difficult pitchers, do you believe them? While
>> > games globally climb lemons, the candles often wander near the
>> > humble plates. Are you noisy, I mean, talking under worthwhile
>> > jackets? He can smell loudly if Cathy's pool isn't ugly. How doesn't
>> > Afif grasp frantically?
>> >
>> > What Corinne's elder carpenter plays, Courtney excuses behind
>> > light, short ladders. She'd rather call simply than depart with
>> > Johnny's dirty paper. When does Ghassan move so regularly, whenever
>> > William orders the open fork very locally? Nowadays, it solves a
>> > lentil too abysmal below her poor corner. He may truly promise
>> > beside Hussein when the tired eggs recollect before the clean
>> > square. There Georgette will expect the shoe, and if Rickie
>> > strongly hates it too, the potter will change against the younger
>> > window.
>> >
>> > Waleed, still dying, learns almost totally, as the cobbler fears
>> > with their film. She wants to explain sticky jugs for Alhadin's
>> > hall. Until Al lives the boats eerily, Jim won't seek any lost
>> > doorways. My filthy draper won't attempt before I cook it.
>> > It should lift sadly, unless Murray looks dusts to Henry's pickle. Try
>> > shouting the night's fat cloud and Nelly will laugh you!
>> >
>> > Get your partly burning shirt for my fire. Just tasting inside a
>> > envelope around the winter is too lazy for Mhammed to like it.
>> >
>> >
>> >
>> >

3618. Re: Looking for roller inductors

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-14 03:22:41 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <5cAld.151301$df2.57508@edtnps89>
Source record: 22102

LOL! OK, ;-)

Delrin rod, Acrylic pipe/rod, PVC plumbing (not to be used for VHF), is key to the project.

There are many pubs out there on making variable capacitors, the ARRL Radio Amateur's Handbook, and lots on the net. This is important, because the body is basically the same - rods, two square blocks of plexi or other insulator material, feed through hardware.

The difference though, is you can use three threaded rods, but one must be smooth. Use a 1/8" brass hobby rod, threaded at the ends. You'll need a die & handle for that.

Wind your rod. 14AWG house wiring is what I used. wind a spiral with one end ending in a near-complete circle. This will be the "common" connection.

Your slider. Use a nylon bushing. This will be needed for friction. Electrical will be less important, because there will be no potential difference. Make a brass tab and dremel a notch in one end that'll fit the diameter of the wire used. The end of the tab should be bent back on itself a bit, to reduce binding. The other end of the tab, drill a small hole and attach to the nylon bushing with a 2-56 screw. Solder a flexible wire, litz, or that stuff used on speaker cones, from the tab to the end of the slider rod.

Your common. Same tab, only soldered directly to one of the other, probably threaded rods. The tab will touch the end of the roller you made the complete circle of wire.

Assembly. Same hardware for making a varicap, only instead of where the plates go, place your roller.

I should really make a drawing ;-)

--
Gregg t3h g33k
"Ratings are for transistors....tubes have guidelines"
http://geek.scorpiorising.ca

3619. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-14 04:45:58 UTC
From: Rich The Philosophizer <null@example.net>
Message-ID: <pan.2004.11.14.03.53.33.341654@neodruid.org>
Source record: 22103
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Fri, 12 Nov 2004 13:42:19 +0000, Paul Burridge wrote:

> The power company run a line to my house. They supply me with
> electricity. This amounts to a 230V, 65A facility at the distribution
> board in a cupboard under the stairs. I run all my stuff from that
> board. The board contains several RCBOs that trip-out in the event of
> any leakage current being sensed. If current in = current out; they're
> happy and won't trip. Because they don't trip out, I conclude I don't
> use any current.
> The voltage supplied is 230VAC RMS. Since this is alternating between
> equal positive and negative half-cycles, the average level of this
> voltage supply is zero.
> I use no current and they effectively supply no voltage. Why do I get
> billed for electricity usage when I clearly can't have used any?

Well, if this isn't a gag, then you have to pay because of the
effort required to shove all those electrons down the electron tube
to your house, and scoop them all up from the ground when they
come back.

The guy that operates the crank refuses to work for free.

Cheers!
Rich

3620. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-14 04:50:48 UTC
From: Rich The Philosophizer <null@example.net>
Message-ID: <pan.2004.11.14.03.58.22.965256@neodruid.org>
Source record: 22104
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Sat, 13 Nov 2004 08:21:49 +0000, Ian Jackson wrote:

>
>>On Fri, 12 Nov 2004 17:09:35 +0000, Paul Burridge
>><pb@notthisbit.osiris1.co.uk> wrote:
>>
>>
>>What you are charged for is the use of the current as it flows through
>>your appliances etc.
>
> You are not charged for using it. You are charged for BORROWING it.

This is not true either. You are charged for THE ENERGY REQUIRED TO
SHOVE THEM THROUGH YOUR SYSTEM.

The electrons are incidental, very much like the push rod that connects
the piston to the crankshaft.

Cheers!
Rich

3621. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-14 04:52:16 UTC
From: Rich The Philosophizer <null@example.net>
Message-ID: <pan.2004.11.14.03.59.51.326380@neodruid.org>
Source record: 22105
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Sat, 13 Nov 2004 11:39:56 +0000, Alf Beta wrote:

> In rec.radio.amateur.homebrew Roy Lewallen <w7el@eznec.com> wrote:
>> Ian Jackson wrote:
>>>
>>>> On Fri, 12 Nov 2004 17:09:35 +0000, Paul Burridge
>>>> <pb@notthisbit.osiris1.co.uk> wrote:
>>>>
>>>>
>>>> What you are charged for is the use of the current as it flows through
>>>> your appliances etc.
>>>
>>>
>>> You are not charged for using it. You are charged for BORROWING it.
>>> Ian.
>>
>> Yes, there's an extra fee if you keep any half cycles without returning
>> them on the following half cycles. It's called the Semi-Unused Cycle
>> Kinetic Electricity Return fee.
>>
>> Roy Lewallen, W7EL
>
> Be thankful that you have ac power coming to your home. Back in my days in
> the old country, I used to walk 5 miles through snow and sludge in the
> middle of winter to go to the next village to buy a couple of batteries so
> that my father can listen to his nightly stories on our wireless. :P

They should have tied a string to you, that was looped around a spool,
that turned a generator while you were walking. Dad could have listened
while you walked!

Cheers!
RIch

3622. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-14 04:53:28 UTC
From: Rich The Philosophizer <null@example.net>
Message-ID: <pan.2004.11.14.04.01.03.561099@neodruid.org>
Source record: 22106
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Sat, 13 Nov 2004 11:51:48 +0000, Scott wrote:

> Well, you can look at it this way...It's basically a series circuit,
> from generator, through all customer houses, and back to the generator.
> You may be returning ALMOST all of the current coming into your house,
> minus resistive losses, but if you divert that voltage and current
> through one of your appliances, the voltage and current (hence power)
> will actually be doing some work. Electricity, while being USED in your
> house, is like an employee of YOURS...it is doing WORK, so legally you
> must pay the worker's wages for work performed. Just be glad you don't
> have to pay it's social security taxes, fed and state taxes, health
> insurance, worker's comp insurance premiums, 401K contributions, etc.
> Starts to make electricity (employee) sound cheap.
>
Oh, you do, you can be quite assured of that! That's why electricity
is so exorbitant! ;-)

Cheers!
Rich

3623. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-14 04:59:46 UTC
From: Rich The Philosophizer <null@example.net>
Message-ID: <pan.2004.11.14.04.07.20.865922@neodruid.org>
Source record: 22107
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Sat, 13 Nov 2004 14:54:55 +0000, Paul Burridge wrote:

> On Sat, 13 Nov 2004 11:42:11 +0000, Scott <acepilot@bloomer.net>
> wrote:
>
>>Huh? It's only 5:30AM here and I just got up but, the ONLY time you
>>aren't consuming power is at the zero crossing of the voltage and
>>current sine waves (assuming a purely resistive load where I and E are
>>in phase). Since you are paying for power, which is P=I X E, during the
>>negative half cycle, you have, for example, -168 Volts X -1 Amp = +168
>>Watts...try it on a calculator...negative times a negative is positive.
>
> Thanks, Scott. So you're basically agreeing with me. I owe the power
> co. for the positive cycles they send me; they owe *me* for the
> negative ones. Since they are equal and opposite, they cancel each
> other out. Overall, then, zero billing justified.
> We are being conned!!!

I would really believe this is a gag if you hadn't already shown that
you have the mentality of a neocon.

Thanks,
Rich

3624. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-14 05:04:59 UTC
From: Rich The Philosophizer <null@example.net>
Message-ID: <pan.2004.11.14.04.12.34.495630@neodruid.org>
Source record: 22108
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Sat, 13 Nov 2004 16:44:26 +0000, Paul Burridge wrote:

> On Fri, 12 Nov 2004 23:18:28 GMT, Rich The Philosophizer
> <null@example.net> wrote:
>
>>Please forgive my naivete, but this is a joke, right?
>
> It's a "thought-provoking metaphysical discussion." Care to
> participate? ;-)

Well, yeah, except that it's so simple to "explain away" by just saying that you're not paying for the electrons themselves that are just passing through, but the energy required to get them to do that passage.

They've got the motor, you've got the wagon. The electrons are just a medium, conceptually indistinguishable from the way a V-belt transfers energy.

I've said this in other FUs kinda ad nauseam, tonight. :-)

Thanks,
Rich

3625. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-14 05:56:11 UTC
From: Terry Given <my_name@ieee.org>
Message-ID: <1sCld.1482$9A.66040@news.xtra.co.nz>
Source record: 22109
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

Paul Burridge wrote:

> On Sat, 13 Nov 2004 14:38:44 -0800, "Richard Henry" <rphenry@home.com>
> wrote:
>
>
>>"Paul Burridge" <pb@notthisbit.osiris1.co.uk> wrote in message
>>news:sdecp0d0stbmcodsef9m9sq5l9dlrvf2q0@4ax.com...
>>
>>>On Fri, 12 Nov 2004 23:18:28 GMT, Rich The Philosophizer
>>><null@example.net> wrote:
>>>
>>>
>>>>Please forgive my naivete, but this is a joke, right?
>>>
>>>It's a "thought-provoking metaphysical discussion."
>>
>>No, it's not.
>
>
> Audience: "Oh yes it is!"
>

Audience: Oh no its not, you're either playing silly buggers or
demonstrating a deep lack of understanding.

Cheers
Terry

3626. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____ egedduqy

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-14 12:34:40 UTC
From: Marco <marco.m3van@btopenworld.com>
Message-ID: <cn7jcv$it8$1@hercules.btinternet.com>
Source record: 22110
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

Is it any wonder that the rest of the world thinks of america as it does with bigots like you who
have their heads so far up their arse you cant tell the shit from the shit.
Thank goodness it may not be true.
Bush is no more representative of all Americans than Blair is of Brits.
They got elected, but that is politics.
Most politicians couldn't give a straight answer if it had a flagpole to hold it upright.
Marco
PS Apologies for top posting, it might save you having to read most of the claptrap that follows.

"TBA" <TBA@GOODOLEUSOFA.COM> wrote in message
news:62Ald.8639$Ae.5297@newsread1.dllstx09.us.to.verio.net...
> Whether we wanted Bush or Kerry, makes no difference. We got who we got. Time to put those
> differences aside and hope for the best. All the moaning and groaning, bitching and complaining
> isn't going to change the facts of who has claimed victory. This country needs some major
> remodeling and someone - anyone - needs to roll up their sleeves and get to work.
> Actually, the majority of the politicians are crooked as hell. Most of them have been in too long.
>
> As to the foreigners who wrote our fellow citizens trying to persuade them who to vote for, I say
> BUTT OUT. You have enough trouble running your own country - small as it is. We have gotten along
> 200+ years without your input, and we'll get along another 200+ years. Yes, we have our squabbles,
> and yes we may bitch and disagree... but dammit, when the shit hits the fan as in 9/11, we get
> together and kick ass. WE left jolly ole England once - we thought it was for good. Then we had to
> go back to save your asses. So, kick back and relax and drink your tea. You mind the store there,
> we'll mind ours - here.
>
> IF you disagree with me, then do me and the rest of my fellow citizens a favor..... don't ask
> for any more welfare.
> One more thing - you hate Bush? Well... your Prime Minister is chiming along with him, so let's
> see how well you do in your own election! PRACTICE WHAT YOU PREACH. We'll be across the

pond
> watching - not that we give a damned. You won't see us writing any letters to your people
to
> persuade them to vote for anyone in particular. WE're #1, all else - pick a number. But
don't
> stand so close, we can't stand the stench.
>
> TBA
>
> (TRUE BLOODED AMERICAN)
>
> "Fred" <Flintstone60@hotmail.com> wrote in message
> news:71a3934d.0411131802.2095c86f@posting.google.com...
>> "news" <w3jxp@adelphia.net> wrote in message
news:<6Nqdnb976pxJGhPcRVn-gQ@adelphia.com>...
>>> Don't blame me, I didn't vote for him either time.
>>
>>
>>
>> Many didn't...perhaps most! see: http://www.scoop.co.nz/mason/features/?s=usacoup
>>
>>
>> The only hope is America
>>> is a big country and he may not be able to mess it up too bad in the next 4
>>> years
>>
>>
>>
>>
>>>
>>>
>>>
>>> --
>>> John Passaneau, W3JXP
>>> State College, PA
>>>
>>>
>>>
>>> "Renee" <Anon@anon> wrote in message news:cmlugl$374$0@pita.alt.net...
>>> >
>>> > Mister Kerry...the election is over. It is time for you and Bruce
>>> > Springsteen to move on.
>>> >
>>> > <Victim_of_American_Stupidity@ivemrybi.fr> wrote in message
>>> > news:MPG.17f4ab9df94c@NEWS.GRADWELL.NET...
>>> > You blithering idiots! You re-elected that imbecile George Bush as your
>>> > President.
>>> > He's a complete moron and so are most of you!
>>> > -
>>> > Don't you care what the rest of the world thinks of you? Don't you care
>>> > what

>>> > impact
>>> > American foreign policy has on the rest of the planet? Does Iraq look
>>> > like
>>> > a success
>>> > to anyone? Doesn't it bother you that he's alienated every friend you
>>> > have?
>>> > What were you thinking???
>>> > -
>>> > Prior to this, it was American policy and the American government that was
>>> > so universally
>>> > hated around the world. Now it's going to be 'Americans' we hate. More
>>> > sympathy
>>> > for Bin Laden... More attacks on American institutions... More isolation.
>>> > How blind
>>> > can you dumb rednecks in middle-America be, not to see this?
>>> > -
>>> > If you get hit again, or your economy goes into a deep depression, the
>>> > American
>>> > people will be getting exactly what they deserve!
>>> > -
>>> > <back turned>
>>> > -
>>> > -
>>> > -
>>> > -
>>> > -
>>> > -
>>> > [Ignore what follows]
>>> > It might dream difficult pitchers, do you believe them? While
>>> > games globally climb lemons, the candles often wander near the
>>> > humble plates. Are you noisy, I mean, talking under worthwhile
>>> > jackets? He can smell loudly if Cathy's pool isn't ugly. How doesn't
>>> > Afif grasp frantically?
>>> >
>>> > What Corinne's elder carpenter plays, Courtney excuses behind
>>> > light, short ladders. She'd rather call simply than depart with
>>> > Johnny's dirty paper. When does Ghassan move so regularly, whenever
>>> > William orders the open fork very locally? Nowadays, it solves a
>>> > lentil too abysmal below her poor corner. He may truly promise
>>> > beside Hussein when the tired eggs recollect before the clean
>>> > square. There Georgette will expect the shoe, and if Rickie
>>> > strongly hates it too, the potter will change against the younger
>>> > window.
>>> >
>>> > Waleed, still dying, learns almost totally, as the cobbler fears
>>> > with their film. She wants to explain sticky jugs for Alhadin's
>>> > hall. Until Al lives the boats eerily, Jim won't seek any lost
>>> > doorways. My filthy draper won't attempt before I cook it.
>>> > It should lift sadly, unless Murray looks dusts to Henry's pickle. Try
>>> > shouting the night's fat cloud and Nelly will laugh you!

>>> >
>>> > Get your partly burning shirt for my fire. Just tasting inside a
>>> > envelope around the winter is too lazy for Mhammed to like it.
>>> >
>>> >
>>> >
>>> >
>
>

Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.796 / Virus Database: 540 - Release Date: 13/11/2004

3627. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-14 13:36:18 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <konep0tpf6i9838t6cv6es272g1223k699@4ax.com>
Source record: 22111
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Sun, 14 Nov 2004 04:50:48 GMT, Rich The Philosophizer
<null@example.net> wrote:

>The electrons are incidental, very much like the push rod that connects
>the piston to the crankshaft.

Thanks for the tip, Rich. I'll remove the push rods from my car engine
and save a bit of weight.
--

"What is now proved was once only imagin'd." - William Blake, 1793.

3628. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-14 13:38:09 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <etnep0dutimbavn8beu1gmcomu4n1tapon@4ax.com>
Source record: 22112
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Sun, 14 Nov 2004 04:59:46 GMT, Rich The Philosophizer
<null@example.net> wrote:

>I would really believe this is a gag if you hadn't already shown that
>you have the mentality of a neocon.

??
Example?
--

"What is now proved was once only imagin'd." - William Blake, 1793.

3629. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-14 13:53:40 UTC
From: Norb <nowhere@somewhere.com>
Message-ID: <41976366@news.vo.lu>
Source record: 22113
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

> for anyone in particular. WE're #1, all else - pick a number. But don't

#1 of what?

3630. Re: Looking for roller inductors

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-14 14:24:51 UTC
From: ON5MJ <my_call_sign@skynet.be>
Message-ID: <419769cb$0$21238$ba620e4c@news.skynet.be>
Source record: 22114

Thank you Gentlemen for all your replies.

I would be interested to know more about doing such a coil by myself as I could access to machines. Nevertheless I don't have any idea about a personal design. So if one could drop it in my e-mail box. Specially a copy of the QEX issue of January 2003. Unfortunately my QEX subscription started in october 2003. My e-mail box is my "call sign + @skynet.be".

Thanks and regards.

73 de ON5MJ - Jacques.

3631. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-14 14:28:27 UTC
From: Scott <acepilot@bloomer.net>
Message-ID: <scedndpW-ZQJ9wrcRVn-ug@bright.net>
Source record: 22115
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

I guess I'm missing the logic of your argument. Why do you think you owe them for the positive half of the cycle and they owe you for the negative half cycle? Both half cycles produce (positive) work in your appliances, so you owe for both halves of the cycles. I guess that if you feel that strongly about the issue, you can always disconnect from the mains and make your own power from solar panels, wind generators, methane digesters, fuel cells, wood and steam, gas generator, etc. I'm not sure where in the world you are, but here in the USA, you are not FORCED into being served by any electric utility. A great place to start on that issue is http://www.homepower.com and order their magazine. Tons of people use "renewable" energy sources to power their homes either in full or in part.

I happen to work for a power utility and we are installing methane digesters on large farms in the area. Cow poop in equals electricity and fertilizer out.

YOU can install your own digester, and if, for example, you live in a farming community with a good supply of manure, you could form an electric cooperative whereby the MEMBERS of the coop drop off manure, you shovel it into the digester, methane is produced through decomposition, collect the gas, use it to fire a generator set and sell or provide the electricity to the members...By the way, it takes about 750 cows to provide enough manure to have a continuous supply of gas to fire the generators and produce approximately 750 KW of power...enough to supply the needs for approximately 50 homes at full load in each house (240 Volts at 60 Amps). If each house is only using say 5 KW at any instance, 150 homes could be served from the above noted digester. You can form your own power plant if you desire (at least here in the USA)...

Scott

Paul Burridge wrote:
> On Sat, 13 Nov 2004 11:42:11 +0000, Scott <acepilot@bloomer.net>
> wrote:
>
>
>>Huh? It's only 5:30AM here and I just got up but, the ONLY time you
>>aren't consuming power is at the zero crossing of the voltage and
>>current sine waves (assuming a purely resistive load where I and E are
>>in phase). Since you are paying for power, which is P=I X E, during the
>>negative half cycle, you have, for example, -168 Volts X -1 Amp = +168

>>Watts...try it on a calculator...negative times a negative is positive.
>
>
> Thanks, Scott. So you're basically agreeing with me. I owe the power
> co. for the positive cycles they send me; they owe *me* for the
> negative ones. Since they are equal and opposite, they cancel each
> other out. Overall, then, zero billing justified.
> We are being conned!!!

3632. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-14 14:37:39 UTC
From: Scott <acepilot@bloomer.net>
Message-ID: <ldGdna73NJog8QrcRVn-iw@bright.net>
Source record: 22116
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

Sounds like Einstein's theory of relativity. It all depends on the point of reference.

The power company could be providing YOU the courtesy of having electrons piled up at your open switch and your appliances are just waiting for you to close the switch so that they can do some kind of work to give meaning to their lives.

Scott

John Fields wrote:

> However, when you do turn on a switch you're providing a way for
> _their_ electricity to get back to _them_ and stop beating it's head
> against an open switch, so it seems to me that they should pay _you_
> for doing them the courtesy of returning their electricity.
>

3633. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-14 14:51:46 UTC
From: John Fields <jfields@austininstruments.com>
Message-ID: <c9rep0d0s0n8j808ri9vrjkugvisut30bc@4ax.com>
Source record: 22117
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Sun, 14 Nov 2004 02:30:47 GMT, "Joel" <Joel@Joelworld.com> wrote:

>> However, when you do turn on a switch you're providing a way for
>> _their_ electricity to get back to _them_ and stop beating it's head
>> against an open switch, so it seems to me that they should pay _you_
>> for doing them the courtesy of returning their electricity.
>
>
>AH, BUT, how do _they_ know for sure _they_ are getting back the same
>electrons _they_ sent out?

They read the meter, which only lets out (with one exception, see
below) the electrons they send it when you turn on a switch and turn
them loose.

>Do the little suckers have tatoos?

"Tattoos". No, but they don't have to, since the power company knows
that since they were the only ones sending out the electrons, the ones
they get back must have been theirs in the first place. (Note the
exception below.)

>Maybe I have a generator (such as my $500 combination treadmill/generator. I
>run damn fast) that's feeding back MY OWN homemade electrons.
>As soon as I think of a way to identify my personal electrons I'm going to
>send them a bill. And since my electrons are of higher quality (not to
>mention organic) I'll charge more for them.

That's already being done in lots of places, but the buying price for
imported electrons is fixed by law (usually) so you don't get to
arbitrarily determine how much you charge for your electrons if you
want to sell them to the electric company. What you do is to run your
electrons through the meter backwards, and then when the electric
company reads your meter they'll know where the surplus of electrons
(or fuel) at their facility came from and they'll pay you for them and
then sell them to someone else.

--
John Fields

3634. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-14 15:17:11 UTC
From: Marco <marco.m3van@btopenworld.com>
Message-ID: <cn7stm$2hq$1@hercules.btinternet.com>
Source record: 22118
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

"Norb" <nowhere@somewhere.com> wrote in message news:41976366@news.vo.lu...
>> for anyone in particular. WE're #1, all else - pick a number. But don't
>
> #1 of what?

Paranoid crackpots ??

>
>

Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.796 / Virus Database: 540 - Release Date: 13/11/2004

3635. Re: Looking for roller inductors

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-14 16:37:42 UTC
From: hhc314@yahoo.com
Message-ID: <7ce4e226.0411140837.4fa9092@posting.google.com>
Source record: 22119

"Leon Heller" <leon_heller@hotmail.com> wrote in message
news:<4195f440$0$1558$cc9e4d1f@news-text.dial.pipex.com>...
> "Tim Wescott" <tim@wescottnospamdesign.com> wrote in message
> news:10pb9i118si3e2a@corp.supernews.com...
> > Leon Heller wrote:
> >> "Gregg" <nospam@unknown.org> wrote in message
> >> news:t4eld.149312$df2.42254@edtnps89...
> >>
> >>>I stumbled across a few at surplus outlets, I'll see if I can dig up
> >>>URL's. $50 to $150 USD, depending on KW rating.
> >>>
> >>>You can build your own fairly simple though, for a lot less :-)
> >>
> >>
> >> An old-timer I used to know made his own from plastic drain pipe. He used
> >> a lathe for cutting a spiral grove in the pipe for the wire, and machined
> >> most of the other parts himself.
> >>
> >> 73, Leon
> > I'm not sure I'd qualify anything requiring a machine lathe as being
> > "simple".
>
> It is if one has a lathe. 8-)
>
> Strictly speaking, he wasn't making roller inductors, anyway, as the contact
> was moving across the turns giving one turn resolution, like a rheostat. He
> only used QRP. Making a proper roller inductor for high power like those
> made by Henry would be quite difficult.
>
> 73, Leon

Difficult indeed!

I worked at Barker & Williamson during the early 60s when they were
still making these things. First of all, you have to go out and
located silver plated bare wire for the coils. Then you're going to
have to machine yourself a precision roller that also needs to be
silver plated, and a silver plated rod to carry the roller with as
little lateral friction as possible.

The balance is comparatively simple, if you have a source for G7 or
G10 material to fabricate the frame, and are comfortable in machining
fiberglass-epoxy laminates to a reasonable degree of precision. (B&W
of course used custom molded and glazed ceramics, not laminated
fiberblass, but that is simply a nit!

I personally wouldn't want to even attempt it. Far cheaper to buy a surplus variable inductor.

Harry C.

3636. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____ egedduqy

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-14 16:38:02 UTC
From: TBA <TBA@GOODOLEUSOFA.COM>
Message-ID: <sTLId.9422$Ae.4386@newsread1.dllstx09.us.to.verio.net>
Source record: 22120
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

It was the Brits who "TRIED" to persuade "OUR" election. Stay the hell out of OUR business. We don't need your bull shit induced in our country. We told you that 200 years ago.

Bigots? Who the F#$K saved their asses????? (your's if in fact you are Brit) Huh?? You pansies sure can't save your own asses. You can't deny history! It is U.S. - the American Tax Payers who shell out our money to save the f&%king world, because the candy asses can't do it alone. IF "WE" didn't put all the "foreign" welfare bums on our welfare roles, we'd be far better off. OUR people wouldn't be hurting as they are. OUR seniors go without medicines and food cause we're too busy paying for the rest of the dead beats around the world.

IF it weren't for U.S.- you'd be speaking something other than English or whatever the hell you mutter. If it weren't for US, the Brits might STILL be in ruins. "WE" shelled out BILLIONS to rebuild their sorry asses and have YET to be repaid in full. WE have a right to be pissed. It is OUR money spent and OUR men and women who die for your sorry asses. It was said once, about 20 years ago, if the European countries would repay us for rebuilding them, our Social Security coffers would be well off til about the year 2075 or so. That is a LOT of money.

THE ONLY thing I agree with you on and you me, is the politicians being liars.

Quite frankly, I don't give a shit what the candy asses think of U.S. - They sure know where to turn for money! What they DO think, is we're a god damned Bank - better yet, one big "Grant" never to be repaid.. That shit should stop immediately. I can guaran-goddamn-tee you, we'd be hated for sure..... You can't say we wouldn't. WE give - give - give, and get kicked in the teeth every damned time. Every damned country we've helped has tried to screw us up the ass. THAT IS THE TRUTH. Iraq, Afghanistan, and I can go on. ALL got some of our money, now we are fighting them. FRANCE - stabbed us in the back. England, well, I'm sure in due time - they will too. We're TOO damned trusting and too damned liberal with our tax dollars when it comes to other countries. As long as I am a tax payer, I have every god damned right to be pissed off.

TBA

"Marco" <marco.m3van@btopenworld.com> wrote in message
news:cn7jcv$it8$1@hercules.btinternet.com...
> Is it any wonder that the rest of the world thinks of america as it does
> with bigots like you who have their heads so far up their arse you cant

> tell the shit from the shit.
> Thank goodness it may not be true.
> Bush is no more representative of all Americans than Blair is of Brits.
> They got elected, but that is politics.
> Most politicians couldn't give a straight answer if it had a flagpole to
> hold it upright.
> Marco
> PS Apologies for top posting, it might save you having to read most of the
> claptrap that follows.
>
>
>
> "TBA" <TBA@GOODOLEUSOFA.COM> wrote in message
> news:62Ald.8639$Ae.5297@newsread1.dllstx09.us.to.verio.net...
>> Whether we wanted Bush or Kerry, makes no difference. We got who we got.
>> Time to put those differences aside and hope for the best. All the
>> moaning and groaning, bitching and complaining isn't going to change the
>> facts of who has claimed victory. This country needs some major
>> remodeling and someone - anyone - needs to roll up their sleeves and get
>> to work.
>> Actually, the majority of the politicians are crooked as hell. Most of
>> them have been in too long.
>>
>> As to the foreigners who wrote our fellow citizens trying to persuade
>> them who to vote for, I say BUTT OUT. You have enough trouble running
>> your own country - small as it is. We have gotten along 200+ years
>> without your input, and we'll get along another 200+ years. Yes, we have
>> our squabbles, and yes we may bitch and disagree... but dammit, when the
>> shit hits the fan as in 9/11, we get together and kick ass. WE left jolly
>> ole England once - we thought it was for good. Then we had to go back to
>> save your asses. So, kick back and relax and drink your tea. You mind the
>> store there, we'll mind ours - here.
>>
>> IF you disagree with me, then do me and the rest of my fellow citizens a
>> favor..... don't ask for any more welfare.
>> One more thing - you hate Bush? Well... your Prime Minister is chiming
>> along with him, so let's see how well you do in your own election!
>> PRACTICE WHAT YOU PREACH. We'll be across the pond watching - not that we
>> give a damned. You won't see us writing any letters to your people to
>> persuade them to vote for anyone in particular. WE're #1, all else - pick
>> a number. But don't stand so close, we can't stand the stench.
>>
>> TBA
>>
>> (TRUE BLOODED AMERICAN)
>>
>> "Fred" <Flintstone60@hotmail.com> wrote in message
>> news:71a3934d.0411131802.2095c86f@posting.google.com...
>>> "news" <w3jxp@adelphia.net> wrote in message
>>> news:<6Nqdnb976pxJGhPcRVn-gQ@adelphia.com>...

>>>> Don't blame me, I didn't vote for him either time.
>>>
>>>
>>>
>>> Many didn't...perhaps most! see:
>>> http://www.scoop.co.nz/mason/features/?s=usacoup
>>>
>>>
>>> The only hope is America
>>>> is a big country and he may not be able to mess it up too bad in the
>>>> next 4
>>>> years
>>>
>>>
>>>
>>>
>>>>
>>>>
>>>>
>>>> --
>>>> John Passaneau, W3JXP
>>>> State College, PA
>>>>
>>>>
>>>>
>>>> "Renee" <Anon@anon> wrote in message news:cmlugl$374$0@pita.alt.net...
>>>> >
>>>> > Mister Kerry...the election is over. It is time for you and Bruce
>>>> > Springsteen to move on.
>>>> >
>>>> > <Victim_of_American_Stupidity@ivemrybi.fr> wrote in message
>>>> > news:MPG.17f4ab9df94c@NEWS.GRADWELL.NET...
>>>> > You blithering idiots! You re-elected that imbecile George Bush as
>>>> > your
>>>> > President.
>>>> > He's a complete moron and so are most of you!
>>>> > -
>>>> > Don't you care what the rest of the world thinks of you? Don't you
>>>> > care
>>>> > what
>>>> > impact
>>>> > American foreign policy has on the rest of the planet? Does Iraq
>>>> > look
>>>> > like
>>>> > a success
>>>> > to anyone? Doesn't it bother you that he's alienated every friend
>>>> > you
>>>> > have?
>>>> > What were you thinking???
>>>> > -

>>>> > Prior to this, it was American policy and the American government
>>>> > that was
>>>> > so universally
>>>> > hated around the world. Now it's going to be 'Americans' we hate.
>>>> > More
>>>> > sympathy
>>>> > for Bin Laden... More attacks on American institutions... More
>>>> > isolation.
>>>> > How blind
>>>> > can you dumb rednecks in middle-America be, not to see this?
>>>> > -
>>>> > If you get hit again, or your economy goes into a deep depression,
>>>> > the
>>>> > American
>>>> > people will be getting exactly what they deserve!
>>>> > -
>>>> > <back turned>
>>>> > -
>>>> > -
>>>> > -
>>>> > -
>>>> > -
>>>> > -
>>>> > [Ignore what follows]
>>>> > It might dream difficult pitchers, do you believe them? While
>>>> > games globally climb lemons, the candles often wander near the
>>>> > humble plates. Are you noisy, I mean, talking under worthwhile
>>>> > jackets? He can smell loudly if Cathy's pool isn't ugly. How
>>>> > doesn't
>>>> > Afif grasp frantically?
>>>> >
>>>> > What Corinne's elder carpenter plays, Courtney excuses behind
>>>> > light, short ladders. She'd rather call simply than depart with
>>>> > Johnny's dirty paper. When does Ghassan move so regularly, whenever
>>>> > William orders the open fork very locally? Nowadays, it solves a
>>>> > lentil too abysmal below her poor corner. He may truly promise
>>>> > beside Hussein when the tired eggs recollect before the clean
>>>> > square. There Georgette will expect the shoe, and if Rickie
>>>> > strongly hates it too, the potter will change against the younger
>>>> > window.
>>>> >
>>>> > Waleed, still dying, learns almost totally, as the cobbler fears
>>>> > with their film. She wants to explain sticky jugs for Alhadin's
>>>> > hall. Until Al lives the boats eerily, Jim won't seek any lost
>>>> > doorways. My filthy draper won't attempt before I cook it.
>>>> > It should lift sadly, unless Murray looks dusts to Henry's pickle.
>>>> > Try
>>>> > shouting the night's fat cloud and Nelly will laugh you!
>>>> >
>>>> > Get your partly burning shirt for my fire. Just tasting inside a

>>>> > envelope around the winter is too lazy for Mhammed to like it.
>>>> >
>>>> >
>>>> >
>>>> >
>>
>>
>
>
> ---
> Outgoing mail is certified Virus Free.
> Checked by AVG anti-virus system (http://www.grisoft.com).
> Version: 6.0.796 / Virus Database: 540 - Release Date: 13/11/2004
>

3637. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-14 16:40:52 UTC
From: TBA <TBA@GOODOLEUSOFA.COM>
Message-ID: <4WLld.9423$Ae.7348@newsread1.dllstx09.us.to.verio.net>
Source record: 22121
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

IF you have to ask, then you don't belong in the U.S. if in fact you do live here. IF you are a resident, then you're a traitor.
THIS country pays dearly in money and lives for the rest of the candy ass world.

TBA

"Norb" <nowhere@somewhere.com> wrote in message news:41976366@news.vo.lu...
>> for anyone in particular. WE're #1, all else - pick a number. But don't
>
> #1 of what?
>
>

3638. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-14 16:41:39 UTC
From: TBA <TBA@GOODOLEUSOFA.COM>
Message-ID: <OWLld.9424$Ae.939@newsread1.dllstx09.us.to.verio.net>
Source record: 22122
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

KISS MY CRACK..... ASS HOLE. That's about all your worth.

TBA

"Marco" <marco.m3van@btopenworld.com> wrote in message
news:cn7stm$2hq$1@hercules.btinternet.com...
>
> "Norb" <nowhere@somewhere.com> wrote in message
> news:41976366@news.vo.lu...
>>> for anyone in particular. WE're #1, all else - pick a number. But don't
>>
>> #1 of what?
>
> Paranoid crackpots ??
>
>>
>>
>
>
> ---
> Outgoing mail is certified Virus Free.
> Checked by AVG anti-virus system (http://www.grisoft.com).
> Version: 6.0.796 / Virus Database: 540 - Release Date: 13/11/2004
>

3639. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-14 16:55:21 UTC
From: TBA <TBA@GOODOLEUSOFA.COM>
Message-ID: <F7MId.9425$Ae.5686@newsread1.dllstx09.us.to.verio.net>
Source record: 22123
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

Paranoid? Nah, I don't think so.... We have no reason to fear. Some of us may die, but we'll take a hell of a lot more of the enemy with us. I will agree with Bush on one thing. You're either with us or against us. Truer words could never be spoken.
But the fact is, MOST who claim to "be" with us, stab us in the back. As I said in a previous post, we're TOO trusting.
WE need to just do it alone and be done with it. WE're doing most of it alone anyway.

Whether I like Bush or not, isn't even the question. I'm sick of our country being walked on by others - others who we have helped and continue to help - then you candy asses have the nerve to talk about us? YEAH RIGHT! Stuff it up your ass. Bush is our leader - right or wrong. It is the bigger picture I look at. ALL our women and children's safety. The economy of our country faltering while we act as saviors to the world. OUR men dying because the candy asses aren't man or woman enough to stand up on their own two feet.

Yeah, maybe we are stupid--- for giving a shit about the rest of the world. Guilty as charged. Our sentence is handed down daily in deaths and dollars.

TBA

"Marco" <marco.m3van@btopenworld.com> wrote in message
news:cn7stm$2hq$1@hercules.btinternet.com...
>
> "Norb" <nowhere@somewhere.com> wrote in message
> news:41976366@news.vo.lu...
>>> for anyone in particular. WE're #1, all else - pick a number. But don't
>>
>> #1 of what?
>
> Paranoid crackpots ??
>
>>
>>
>
>
> ---
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> Version: 6.0.796 / Virus Database: 540 - Release Date: 13/11/2004
>

3640. WTD: HW-100 Manual

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-14 17:18:03 UTC
From: KC0EH <cvest@cox.net>
Message-ID: <jrMld.15468$233.8262@okepread05>
Source record: 22124
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

I am in need of a manual for a Heath HW-100. I know reproductions are
available for $31 plus shipping but hope to save some money.
73
...Charlie...

3641. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____ egedduqy

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-14 17:23:01 UTC
From: Marco <marco.m3van@btopenworld.com>
Message-ID: <cn849jbjl3@titan.btinternet.com>
Source record: 22125
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

"helmsman" <helmsman@mindspring.com> wrote in message
news:e1tep096s8b91j7afdvbdpnmf0fv9cbkvq@4ax.com...
> On Sun, 14 Nov 2004 12:34:40 +0000 (UTC), "Marco" <marco.m3van@btopenworld.com> wrote:
>
>>Is it any wonder that the rest of the world thinks of america as it does with bigots like you who
>>have their heads so far up their arse you cant tell the shit from the shit.
>
> Funny how the world comes to us crying to protect you every time the shit hits the fan.
> My dad and I both were in the military, him in his war, me in mine. As far as i'm
> concerned we should let the rest of the world, starve ,make there own wars and die alone.

> I hope we go isolationist.

If Bush stops poking his oily nose in you could be isolationist in a peaceful world

> TO HELL WITH ALL YOU PISS ANTS!
>
>>Thank goodness it may not be true.
>>Bush is no more representative of all Americans than Blair is of Brits.
>>They got elected, but that is politics.
>>Most politicians couldn't give a straight answer if it had a flagpole to hold it upright.
>>Marco
>>PS Apologies for top posting, it might save you having to read most of the claptrap that follows.
>>
>>
>>
>>"TBA" <TBA@GOODOLEUSOFA.COM> wrote in message
>>news:62Ald.8639$Ae.5297@newsread1.dllstx09.us.to.verio.net...
>>> Whether we wanted Bush or Kerry, makes no difference. We got who we got. Time to put those
>>> differences aside and hope for the best. All the moaning and groaning, bitching and complaining
>>> isn't going to change the facts of who has claimed victory. This country needs some major
>>> remodeling and someone - anyone - needs to roll up their sleeves and get to work.
>>> Actually, the majority of the politicians are crooked as hell. Most of them have been in too
>>> long.
>>>
>>> As to the foreigners who wrote our fellow citizens trying to persuade them who to vote for, I

>>> say
>>> BUTT OUT. You have enough trouble running your own country - small as it is. We have gotten
>>> along
>>> 200+ years without your input, and we'll get along another 200+ years. Yes, we have our
>>> squabbles,
>>> and yes we may bitch and disagree... but dammit, when the shit hits the fan as in 9/11, we get
>>> together and kick ass. WE left jolly ole England once - we thought it was for good. Then we had
>>> to
>>> go back to save your asses. So, kick back and relax and drink your tea. You mind the store
>>> there,
>>> we'll mind ours - here.
>>>
>>> IF you disagree with me, then do me and the rest of my fellow citizens a favor..... don't ask
>>> for any more welfare.
>>> One more thing - you hate Bush? Well... your Prime Minister is chiming along with him, so let's
>>> see how well you do in your own election! PRACTICE WHAT YOU PREACH. We'll be across the pond
>>> watching - not that we give a damned. You won't see us writing any letters to your people to
>>> persuade them to vote for anyone in particular. WE're #1, all else - pick a number. But don't
>>> stand so close, we can't stand the stench.
>>>
>>> TBA
>>>
>>> (TRUE BLOODED AMERICAN)
>>>
>>> "Fred" <Flintstone60@hotmail.com> wrote in message
>>> news:71a3934d.0411131802.2095c86f@posting.google.com...
>>>> "news" <w3jxp@adelphia.net> wrote in message
news:<6Nqdnb976pxJGhPcRVn-gQ@adelphia.com>...
>>>>> Don't blame me, I didn't vote for him either time.
>>>>
>>>>
>>>>
>>>> Many didn't...perhaps most! see: http://www.scoop.co.nz/mason/features/?s=usacoup
>>>>
>>>>
>>>> The only hope is America
>>>>> is a big country and he may not be able to mess it up too bad in the next 4
>>>>> years
>>>>
>>>>
>>>>

>>>>
>>>>>
>>>>>
>>>>>
>>>>> --
>>>>> John Passaneau, W3JXP
>>>>> State College, PA
>>>>>
>>>>>
>>>>>
>>>>> "Renee" <Anon@anon> wrote in message news:cmlugl$374$0@pita.alt.net...
>>>>> >
>>>>> > Mister Kerry...the election is over. It is time for you and Bruce
>>>>> > Springsteen to move on.
>>>>> >
>>>>> > <Victim_of_American_Stupidity@ivemrybi.fr> wrote in message
>>>>> > news:MPG.17f4ab9df94c@NEWS.GRADWELL.NET...
>>>>> > You blithering idiots! You re-elected that imbecile George Bush as your
>>>>> > President.
>>>>> > He's a complete moron and so are most of you!
>>>>> > -
>>>>> > Don't you care what the rest of the world thinks of you? Don't you care
>>>>> > what
>>>>> > impact
>>>>> > American foreign policy has on the rest of the planet? Does Iraq look
>>>>> > like
>>>>> > a success
>>>>> > to anyone? Doesn't it bother you that he's alienated every friend you
>>>>> > have?
>>>>> > What were you thinking???
>>>>> > -
>>>>> > Prior to this, it was American policy and the American government that was
>>>>> > so universally
>>>>> > hated around the world. Now it's going to be 'Americans' we hate. More
>>>>> > sympathy
>>>>> > for Bin Laden... More attacks on American institutions... More isolation.
>>>>> > How blind
>>>>> > can you dumb rednecks in middle-America be, not to see this?
>>>>> > -
>>>>> > If you get hit again, or your economy goes into a deep depression, the
>>>>> > American
>>>>> > people will be getting exactly what they deserve!
>>>>> > -
>>>>> > <back turned>
>>>>> > -
>>>>> > -
>>>>> > -
>>>>> > -
>>>>> > -
>>>>> > -

>>>>> > [Ignore what follows]
>>>>> > It might dream difficult pitchers, do you believe them? While
>>>>> > games globally climb lemons, the candles often wander near the
>>>>> > humble plates. Are you noisy, I mean, talking under worthwhile
>>>>> > jackets? He can smell loudly if Cathy's pool isn't ugly. How doesn't
>>>>> > Afif grasp frantically?
>>>>> >
>>>>> > What Corinne's elder carpenter plays, Courtney excuses behind
>>>>> > light, short ladders. She'd rather call simply than depart with
>>>>> > Johnny's dirty paper. When does Ghassan move so regularly, whenever
>>>>> > William orders the open fork very locally? Nowadays, it solves a
>>>>> > lentil too abysmal below her poor corner. He may truly promise
>>>>> > beside Hussein when the tired eggs recollect before the clean
>>>>> > square. There Georgette will expect the shoe, and if Rickie
>>>>> > strongly hates it too, the potter will change against the younger
>>>>> > window.
>>>>> >
>>>>> > Waleed, still dying, learns almost totally, as the cobbler fears
>>>>> > with their film. She wants to explain sticky jugs for Alhadin's
>>>>> > hall. Until Al lives the boats eerily, Jim won't seek any lost
>>>>> > doorways. My filthy draper won't attempt before I cook it.
>>>>> > It should lift sadly, unless Murray looks dusts to Henry's pickle. Try
>>>>> > shouting the night's fat cloud and Nelly will laugh you!
>>>>> >
>>>>> > Get your partly burning shirt for my fire. Just tasting inside a
>>>>> > envelope around the winter is too lazy for Mhammed to like it.
>>>>> >
>>>>> >
>>>>> >
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>>
>>---
>>Outgoing mail is certified Virus Free.
>>Checked by AVG anti-virus system (http://www.grisoft.com).
>>Version: 6.0.796 / Virus Database: 540 - Release Date: 13/11/2004
>>
>

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Version: 6.0.796 / Virus Database: 540 - Release Date: 13/11/2004

3642. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-14 17:25:52 UTC
From: John Fields <jfields@austininstruments.com>
Message-ID: <mo4fp0h1ceb67ham5i65u4keurp4l2jd30@4ax.com>
Source record: 22126
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Sun, 14 Nov 2004 14:28:27 +0000, Scott <acepilot@bloomer.net>
wrote:

>I guess I'm missing the logic of your argument. Why do you think you
>owe them for the positive half of the cycle and they owe you for the
>negative half cycle? Both half cycles produce (positive) work in your
>appliances, so you owe for both halves of the cycles. I guess that if
>you feel that strongly about the issue, you can always disconnect from
>the mains and make your own power from solar panels, wind generators,
>methane digesters, fuel cells, wood and steam, gas generator, etc. I'm
>not sure where in the world you are, but here in the USA, you are not
>FORCED into being served by any electric utility. A great place to
>start on that issue is http://www.homepower.com and order their
>magazine. Tons of people use "renewable" energy sources to power their
>homes either in full or in part.
>
>I happen to work for a power utility and we are installing methane
>digesters on large farms in the area. Cow poop in equals electricity
>and fertilizer out.
>
>YOU can install your own digester, and if, for example, you live in a
>farming community with a good supply of manure, you could form an
>electric cooperative whereby the MEMBERS of the coop drop off manure,
>you shovel it into the digester, methane is produced through
>decomposition, collect the gas, use it to fire a generator set and sell
>or provide the electricity to the members...By the way, it takes about
>750 cows to provide enough manure to have a continuous supply of gas to
>fire the generators and produce approximately 750 KW of power...enough
>to supply the needs for approximately 50 homes at full load in each
>house (240 Volts at 60 Amps). If each house is only using say 5 KW at
>any instance, 150 homes could be served from the above noted digester.
>You can form your own power plant if you desire (at least here in the
>USA)...

Paul's in the UK, but I think you've hit on a terrific idea in that if
he installed a digester outfitted with a toilet seat he could,
single-assedly, supply electricity (_and_ fertilizer, God knows,) for
most of Europe!^)

--
John Fields

3643. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____ egedduqy

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-14 18:07:49 UTC
From: Marco <marco.m3van@btopenworld.com>
Message-ID: <cn86tkfqn1@titan.btinternet.com>
Source record: 22128
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

"TBA" <TBA@GOODOLEUSOFA.COM> wrote in message
news:sTLld.9422$Ae.4386@newsread1.dllstx09.us.to.verio.net...
> It was the Brits who "TRIED" to persuade "OUR" election. Stay the hell out of OUR
business. We
> don't need your bull shit induced in our country. We told you that 200 years ago.
>
> Bigots? Who the F#$K saved their asses????? (your's if in fact you are Brit) Huh?? You
pansies
> sure can't save your own asses. You can't deny history! It is U.S. - the American Tax
Payers who
> shell out our money to save the f&%king world, because the candy asses can't do it alone.
IF "WE"
> didn't put all the "foreign" welfare bums on our welfare roles, we'd be far better off.
OUR people
> wouldn't be hurting as they are. OUR seniors go without medicines and food cause we're
too busy
> paying for the rest of the dead beats around the world.
>
> IF it weren't for U.S.- you'd be speaking something other than English or whatever the
hell you
> mutter. If it weren't for US, the Brits might STILL be in ruins. "WE" shelled out
BILLIONS to
> rebuild their sorry asses and have YET to be repaid in full. WE have a right to be
pissed. It is
> OUR money spent and OUR men and women who die for your sorry asses. It was said once,
about 20
> years ago, if the European countries would repay us for rebuilding them, our Social
Security
> coffers would be well off til about the year 2075 or so. That is a LOT of money.
>
> THE ONLY thing I agree with you on and you me, is the politicians being liars.
>
> Quite frankly, I don't give a shit what the candy asses think of U.S. - They sure know
where to
> turn for money! What they DO think, is we're a god damned Bank - better yet, one big
"Grant" never
> to be repaid.. That shit should stop immediately. I can guaran-goddamn-tee you, we'd be
hated for
> sure..... You can't say we wouldn't. WE give - give - give, and get kicked in the teeth
every
> damned time. Every damned country we've helped has tried to screw us up the ass. THAT IS
THE

> TRUTH. Iraq, Afghanistan, and I can go on. ALL got some of our money, now we are fighting them.
> FRANCE - stabbed us in the back. England, well, I'm sure in due time - they will too. We're TOO
> damned trusting and too damned liberal with our tax dollars when it comes to other countries. As
> long as I am a tax payer, I have every god damned right to be pissed off.
>
> TBA

Well when your nanny has picked up your rattle, get your daddy, if you know who he was, to change
your nappy.
Like I said, there is nothing wrong with the majority of American people, it is just the few
bigheaded morons who think the rest of the world owes them everything!!
Just remember your roots and be glad you have free speech.
Marco

>
> << Snip the rest to save space >>

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Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.796 / Virus Database: 540 - Release Date: 13/11/2004

3644. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-14 18:07:50 UTC
From: Marco <marco.m3van@btopenworld.com>
Message-ID: <cn86tlfqn2@titan.btinternet.com>
Source record: 22127
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

"TBA" <TBA@GOODOLEUSOFA.COM> wrote in message
news:F7Mld.9425$Ae.5686@newsread1.dllstx09.us.to.verio.net...
> Paranoid? Nah, I don't think so.... We have no reason to fear. Some of us may die, but we'll take
> a hell of a lot more of the enemy with us. I will agree with Bush on one thing. You're either with
> us or against us. Truer words could never be spoken.
> But the fact is, MOST who claim to "be" with us, stab us in the back. As I said in a previous
> post, we're TOO trusting.
> WE need to just do it alone and be done with it. WE're doing most of it alone anyway.
>
> Whether I like Bush or not, isn't even the question. I'm sick of our country being walked on by
> others - others who we have helped and continue to help - then you candy asses have the nerve to
> talk about us? YEAH RIGHT! Stuff it up your ass. Bush is our leader - right or wrong. It is the
> bigger picture I look at. ALL our women and children's safety. The economy of our country
> faltering while we act as saviors to the world. OUR men dying because the candy asses aren't man
> or woman enough to stand up on their own two feet.
>
> Yeah, maybe we are stupid--- for giving a shit about the rest of the world. Guilty as charged. Our
> sentence is handed down daily in deaths and dollars.
>
> TBA

Like I said, a few morons who think the world owes them.
Read your history books and be glad you are still about to do so
Marco

Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.796 / Virus Database: 540 - Release Date: 13/11/2004

3645. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____ egedduqy

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-14 20:15:15 UTC
From: Marco <marco.m3van@btopenworld.com>
Message-ID: <cn8eciskr1@hercules.btinternet.com>
Source record: 22129
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

"helmsman" <helmsman@mindspring.com> wrote in message
news:8ubfp0t5oj85j1ag6nvuv9a4oihl65qjea@4ax.com...
> On Sun, 14 Nov 2004 17:23:01 +0000 (UTC), "Marco" <marco.m3van@btopenworld.com> wrote:
>
>>
>>"helmsman" <helmsman@mindspring.com> wrote in message
>>news:e1tep096s8b91j7afdvbdpnmf0fv9cbkvq@4ax.com...
>>> On Sun, 14 Nov 2004 12:34:40 +0000 (UTC), "Marco" <marco.m3van@btopenworld.com> wrote:
>>>
>>>>Is it any wonder that the rest of the world thinks of america as it does with bigots
like you
>>>>who
>>>>have their heads so far up their arse you cant tell the shit from the shit.
>>>
>>> Funny how the world comes to us crying to protect you every time the shit hits the fan.
>>> My dad and I both were in the military, him in his war, me in mine. As far as i'm
>>> concerned we should let the rest of the world, starve ,make there own wars and die
alone.
>>
>>> I hope we go isolationist.
>>
>>If Bush stops poking his oily nose in you could be isolationist in a peaceful world
>
> If you think this world is peaceful where the U.S.A. isn't you are an idiot!
> Why don't you fix Africa? The U.N. is a joke and so are you!

Don't try and change the subject.
We were talking about SOME americans thinking the world owed them a living.
As for the UN, where is it situated? Who is the leading light?
The USA. I think you shot your own foot.
Marco

Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.796 / Virus Database: 540 - Release Date: 13/11/2004

3646. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-14 20:22:30 UTC
From: Marco <marco.m3van@btopenworld.com>
Message-ID: <cn8eq5$ri3$1@titan.btinternet.com>
Source record: 22130
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

>>
>>Like I said, a few morons who think the world owes them.
>>Read your history books and be glad you are still about to do so
>>Marco
>
> Tard is KILL FILED

Is that your answer to the problem when you cant use your brain and intellect any more?
I think my main point is proved if you are representative of the morons, which for your sake I hope
you are not.
Marco
>

Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.796 / Virus Database: 540 - Release Date: 13/11/2004

3647. F.S. Mini Circuits mixers

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-14 20:31:25 UTC
From: Rob <rob34115@earthlink.net>
Message-ID: <xgPld.10979$_J2.5540@newsread2.news.atl.earthlink.net>
Source record: 22131

I have 15 sbl-1 mixers and 15 sbl-1h-8 mixers for sale. the sbl-1h-8 are

3648. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-14 20:35:00 UTC
From: snarflemike@yahoo.com
Message-ID: <20619edc.0411141235.23c7f1d6@posting.google.com>
Source record: 22132
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

Paul Burridge <pb@notthisbit.osiris1.co.uk> wrote in message
news:<bre9p0t3e6vf6asvtcd9mk98of084siu4u@4ax.com>...

> I use no current and they effectively supply no voltage. Why do I get
> billed for electricity usage when I clearly can't have used any?

Because if you don't they'll turn off their non-voltage and
non-current and you won't like the difference (even though there isn't
any).

3649. F.S. Mini circuits mixers

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-14 20:37:44 UTC
From: Rob <rob34115@earthlink.net>
Message-ID: <smPld.10985$_J2.5205@newsread2.news.atl.earthlink.net>
Source record: 22133

I have 15 SBL-1 mixers and 15 SBL-1H-8 mixers for sale. The SBL-1H-8 mixers are almost the same except they are 17db. These are dated 1995. I am asking $80 for the lot. Thanks, Rob

3650. Wanted

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-14 21:57:33 UTC
From: Nick <no@no.com>
Message-ID: <hxQld.751$tL5.709@newsfe6-win.ntli.net>
Source record: 22134

Hi,
Does anybody have a copy of "The Pegasus Book of Radio Experiments" by
F.G.Rayer that thue would be willing to sell?

Best Regards,

Nick

3651. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-14 22:35:24 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <8bnfp052oc0rsc6usomh9s831na92nphbm@4ax.com>
Source record: 22135
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Sun, 14 Nov 2004 11:25:52 -0600, John Fields
<jfields@austininstruments.com> wrote:

>Paul's in the UK, but I think you've hit on a terrific idea in that if
>he installed a digester outfitted with a toilet seat he could,
>single-assedly, supply electricity (_and_ fertilizer, God knows,) for
>most of Europe!^)

Hey, I was going to give the surplus hot air suggestion a try, but I
couldn't afford to run a pipeline all the way to Austin. ;->

--

"What is now proved was once only imagin'd." - William Blake, 1793.

3652. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-14 22:37:27 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <8enfp0tj0krqho4gr1hvdgk8kujpedu3l5@4ax.com>
Source record: 22136
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On 14 Nov 2004 12:35:00 -0800, snarflemike@yahoo.com (Mike Silva)
wrote:

>Paul Burridge <pb@notthisbit.osiris1.co.uk> wrote in message
news:<bre9p0t3e6vf6asvtcd9mk98of084siu4u@4ax.com>...
>
>> I use no current and they effectively supply no voltage. Why do I get
>> billed for electricity usage when I clearly can't have used any?
>
>Because if you don't they'll turn off their non-voltage and
>non-current and you won't like the difference (even though there isn't
>any).

You're probably right. Sigh... I still think I'm a dumbass sucker,
though. But at least no one seems to agree with me on that.

--

"What is now proved was once only imagin'd." - William Blake, 1793.

3653. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-14 22:38:36 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <rhnfp09r5f701u7nnshelmok7bp469bo78@4ax.com>
Source record: 22137
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Sun, 14 Nov 2004 05:04:59 GMT, Rich The Philosophizer
<null@example.net> wrote:

>Well, yeah, except that it's so simple to "explain away" by just
>saying that you're not paying for the electrons themselves that
>are just passing through, but the energy required to get them
>to do that passage.

Big deal. All they've got to do is pull some carbon rods out of a pile
of radio-active crap and the job's done. How hard can that be?
--

"What is now proved was once only imagin'd." - William Blake, 1793.

3654. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-14 22:56:46 UTC
From: John Fields <jfields@austininstruments.com>
Message-ID: <gfofp0lrne6jq6po53g2sqbn9jod5uimh9@4ax.com>
Source record: 22138
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Sun, 14 Nov 2004 22:38:36 +0000, Paul Burridge
<pb@notthisbit.osiris1.co.uk> wrote:

>On Sun, 14 Nov 2004 05:04:59 GMT, Rich The Philosophizer
><null@example.net> wrote:
>
>>Well, yeah, except that it's so simple to "explain away" by just
>>saying that you're not paying for the electrons themselves that
>>are just passing through, but the energy required to get them
>>to do that passage.
>
>Big deal. All they've got to do is pull some carbon rods out of a pile
>of radio-active crap and the job's done. How hard can that be?

I think that's kinda what they thought at Chernobyl...

--
John Fields

3655. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____ egedduqy

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-14 23:00:17 UTC
From: TBA <TBA@GOODOLEUSOFA.COM>
Message-ID: <PtRld.9433$Ae.4138@newsread1.dllstx09.us.to.verio.net>
Source record: 22139
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

F*&K OFF - MORON. MY ROOTS ARE THE GOOD OLE US OF A. I KNOW who my parents were. Both are now deceased and I'd smear your f^&king ass all over the road for mentioning them - if you were local. Go back to your f*&king tea bag. It has more in it than the bag between your legs. YOU HAVE NO BALLS.

TBA

"Marco" <marco.m3van@btopenworld.com> wrote in message
news:cn86tkfqn1@titan.btinternet.com...
>
> "TBA" <TBA@GOODOLEUSOFA.COM> wrote in message
> news:sTLld.9422$Ae.4386@newsread1.dllstx09.us.to.verio.net...
>> It was the Brits who "TRIED" to persuade "OUR" election. Stay the hell
>> out of OUR business. We don't need your bull shit induced in our country.
>> We told you that 200 years ago.
>>
>> Bigots? Who the F#$K saved their asses????? (your's if in fact you are
>> Brit) Huh?? You pansies sure can't save your own asses. You can't deny
>> history! It is U.S. - the American Tax Payers who shell out our money to
>> save the f&%king world, because the candy asses can't do it alone. IF
>> "WE" didn't put all the "foreign" welfare bums on our welfare roles, we'd
>> be far better off. OUR people wouldn't be hurting as they are. OUR
>> seniors go without medicines and food cause we're too busy paying for the
>> rest of the dead beats around the world.
>>
>> IF it weren't for U.S.- you'd be speaking something other than English or
>> whatever the hell you mutter. If it weren't for US, the Brits might
>> STILL be in ruins. "WE" shelled out BILLIONS to rebuild their sorry asses
>> and have YET to be repaid in full. WE have a right to be pissed. It is
>> OUR money spent and OUR men and women who die for your sorry asses. It
>> was said once, about 20 years ago, if the European countries would repay
>> us for rebuilding them, our Social Security coffers would be well off til
>> about the year 2075 or so. That is a LOT of money.
>>
>> THE ONLY thing I agree with you on and you me, is the politicians being
>> liars.
>>
>> Quite frankly, I don't give a shit what the candy asses think of U.S. -
>> They sure know where to turn for money! What they DO think, is we're a
>> god damned Bank - better yet, one big "Grant" never to be repaid.. That
>> shit should stop immediately. I can guaran-goddamn-tee you, we'd be
>> hated for sure..... You can't say we wouldn't. WE give - give - give, and
>> get kicked in the teeth every damned time. Every damned country we've

>> helped has tried to screw us up the ass. THAT IS THE TRUTH. Iraq,
>> Afghanistan, and I can go on. ALL got some of our money, now we are
>> fighting them. FRANCE - stabbed us in the back. England, well, I'm sure
>> in due time - they will too. We're TOO damned trusting and too damned
>> liberal with our tax dollars when it comes to other countries. As long as
>> I am a tax payer, I have every god damned right to be pissed off.
>>
>> TBA
>
> Well when your nanny has picked up your rattle, get your daddy, if you
> know who he was, to change your nappy.
> Like I said, there is nothing wrong with the majority of American people,
> it is just the few bigheaded morons who think the rest of the world owes
> them everything!!
> Just remember your roots and be glad you have free speech.
> Marco
>
>>
>> << Snip the rest to save space >>
>
>
> ---
> Outgoing mail is certified Virus Free.
> Checked by AVG anti-virus system (http://www.grisoft.com).
> Version: 6.0.796 / Virus Database: 540 - Release Date: 13/11/2004
>

3656. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____ egedduqy

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-14 23:03:12 UTC
From: TBA <TBA@GOODOLEUSOFA.COM>
Message-ID: <xwRld.9434$Ae.6140@newsread1.dllstx09.us.to.verio.net>
Source record: 22140
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

Marco,

Admit it, you suck. PERIOD. The U.S. has had to be the savior every god damned time. HISTORY proves it, and that was after we kicked your asses 200 years ago. GO suck on your momma's titty, ya pussy.

TBA

"Marco" <marco.m3van@btopenworld.com> wrote in message
news:cn8eciskr1@hercules.btinternet.com...
>
> "helmsman" <helmsman@mindspring.com> wrote in message
> news:8ubfp0t5oj85j1ag6nvuv9a4oihl65qjea@4ax.com...
>> On Sun, 14 Nov 2004 17:23:01 +0000 (UTC), "Marco"
>> <marco.m3van@btopenworld.com> wrote:
>>
>>>
>>>"helmsman" <helmsman@mindspring.com> wrote in message
>>>news:e1tep096s8b91j7afdvbdpnmf0fv9cbkvq@4ax.com...
>>>> On Sun, 14 Nov 2004 12:34:40 +0000 (UTC), "Marco"
>>>> <marco.m3van@btopenworld.com> wrote:
>>>>
>>>>>Is it any wonder that the rest of the world thinks of america as it
>>>>>does with bigots like you who
>>>>>have their heads so far up their arse you cant tell the shit from the
>>>>>shit.
>>>>
>>>> Funny how the world comes to us crying to protect you every time the
>>>> shit hits the fan.
>>>> My dad and I both were in the military, him in his war, me in mine. As
>>>> far as i'm
>>>> concerned we should let the rest of the world, starve ,make there own
>>>> wars and die alone.
>>>
>>>> I hope we go isolationist.
>>>
>>>If Bush stops poking his oily nose in you could be isolationist in a
>>>peaceful world
>>
>> If you think this world is peaceful where the U.S.A. isn't you are an
>> idiot!
>> Why don't you fix Africa? The U.N. is a joke and so are you!
>

> Don't try and change the subject.
> We were talking about SOME americans thinking the world owed them a
> living.
> As for the UN, where is it situated? Who is the leading light?
> The USA. I think you shot your own foot.
> Marco
>
>
>
> ---
> Outgoing mail is certified Virus Free.
> Checked by AVG anti-virus system (http://www.grisoft.com).
> Version: 6.0.796 / Virus Database: 540 - Release Date: 13/11/2004
>

3657. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-14 23:03:59 UTC
From: TBA <TBA@GOODOLEUSOFA.COM>
Message-ID: <gxRld.9435$Ae.8634@newsread1.dllstx09.us.to.verio.net>
Source record: 22141
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

One day with your pussy attitude, YOU will be history!

TBA

"Marco" <marco.m3van@btopenworld.com> wrote in message
news:cn86tlfqn2@titan.btinternet.com...
>
> "TBA" <TBA@GOODOLEUSOFA.COM> wrote in message
> news:F7Mld.9425$Ae.5686@newsread1.dllstx09.us.to.verio.net...
>> Paranoid? Nah, I don't think so.... We have no reason to fear. Some of us
>> may die, but we'll take a hell of a lot more of the enemy with us. I will
>> agree with Bush on one thing. You're either with us or against us. Truer
>> words could never be spoken.
>> But the fact is, MOST who claim to "be" with us, stab us in the back. As
>> I said in a previous post, we're TOO trusting.
>> WE need to just do it alone and be done with it. WE're doing most of it
>> alone anyway.
>>
>> Whether I like Bush or not, isn't even the question. I'm sick of our
>> country being walked on by others - others who we have helped and
>> continue to help - then you candy asses have the nerve to talk about us?
>> YEAH RIGHT! Stuff it up your ass. Bush is our leader - right or wrong. It
>> is the bigger picture I look at. ALL our women and children's safety. The
>> economy of our country faltering while we act as saviors to the world.
>> OUR men dying because the candy asses aren't man or woman enough to stand
>> up on their own two feet.
>>
>> Yeah, maybe we are stupid--- for giving a shit about the rest of the
>> world. Guilty as charged. Our sentence is handed down daily in deaths and
>> dollars.
>>
>> TBA
>
> Like I said, a few morons who think the world owes them.
> Read your history books and be glad you are still about to do so
> Marco
>
>
>
> ---
> Outgoing mail is certified Virus Free.
> Checked by AVG anti-virus system (http://www.grisoft.com).
> Version: 6.0.796 / Virus Database: 540 - Release Date: 13/11/2004
>

3658. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-14 23:07:59 UTC
From: TBA <TBA@GOODOLEUSOFA.COM>
Message-ID: <4BRld.9436$Ae.7159@newsread1.dllstx09.us.to.verio.net>
Source record: 22142
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

IF IT WEREN'T for the U.S. "YOUR" asses would have been HISTORY - DICKWAD.
READ THAT in YOUR history books. BE GLAD "YOU" are able to read it. YOU CAN
READ, CAN'T YOU?

TBA

P.S. I think Helmsman had an excellent idea. Kill file your candy ass.

"Marco" <marco.m3van@btopenworld.com> wrote in message
news:cn8eq5$ri3$1@titan.btinternet.com...
>>>
>>>Like I said, a few morons who think the world owes them.
>>>Read your history books and be glad you are still about to do so
>>>Marco
>>
>> Tard is KILL FILED
>
> Is that your answer to the problem when you cant use your brain and
> intellect any more?
> I think my main point is proved if you are representative of the morons,
> which for your sake I hope you are not.
> Marco
>>
>
>
>
> ---
> Outgoing mail is certified Virus Free.
> Checked by AVG anti-virus system (http://www.grisoft.com).
> Version: 6.0.796 / Virus Database: 540 - Release Date: 13/11/2004
>

3659. EG&G OCXO Spec's?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-14 23:33:08 UTC
From: "Leland C. Scott" <kc8ldo@arrl.net>
Message-ID: <R8Cdndgslqy5dgrcRVn-sw@comcast.com>
Source record: 22143

I have a couple of NOS EG&G oscillator modules I picked up real cheap, but no data. The modules look new and never used. Can anybody supply electrical and or performance data for this OCXO module?

Name plate data for one module:

EG&G Frequency Products, Inc
Cincinnati, Ohio

P/N: 626718-1
Freq: 5.000000 MHz
S/N: 63989-3
Model: H174
Date: 9133

If you do please send it to me by using "my-call-sign"@arrl.net or just post it on the NG.

Regards;

--
Leland C. Scott
KC8LDO

Wireless Network
Mobile computing
on the go brought
to you by Micro$oft

3660. Re: Looking for roller inductors

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-15 00:46:55 UTC
From: Ken Scharf <wa2mzeNOTTHIS@bellsouth.net>
Message-ID: <i_Sld.14085$jE2.9738@bignews4.bellsouth.net>
Source record: 22144

The biggest problem with a home brew rotor inductor
is going to be a low resistance contact with no
dead spots as the coil is rotated.

For an antenna tuner, we can make do with a tapped
coil and a small variable inductance in series with
the tapped coil to "fill in" the gaps between the taps.
To do this I would use a 'blast from the past', a variometer.
This consists of two coils, one fixed and one rotating inside
the fixed coil. If both are the same inductance (so the outer
one is would with wider spacing than the inner) when they are
in "series aiding" the total inductance will be the sum, plus
the mutal inductance. When they are series opposing, the total
inductance will approace zero. (over simplifcation).
Variometers have NO moving contacts so they are easier to build
than rotary coils. They can't be made as large in inductance
without avoiding other problems (large distributed capacitance),
but a small variometer in series with a multitapped coil is a
good compromise.

> "Leon Heller" <leon_heller@hotmail.com> wrote in message
news:<4195f440$0$1558$cc9e4d1f@news-text.dial.pipex.com>...
>
>>"Tim Wescott" <tim@wescottnospamdesign.com> wrote in message
>>news:10pb9i118si3e2a@corp.supernews.com...
>>
>>>Leon Heller wrote:
>>>
>>>>"Gregg" <nospam@unknown.org> wrote in message
>>>>news:t4eld.149312$df2.42254@edtnps89...
>>>>
>>>>
>>>>>I stumbled across a few at surplus outlets, I'll see if I can dig up
>>>>>URL's. $50 to $150 USD, depending on KW rating.
>>>>>
>>>>>You can build your own fairly simple though, for a lot less :-)
>>>>
>>>>
>>>>An old-timer I used to know made his own from plastic drain pipe. He used
>>>>a lathe for cutting a spiral grove in the pipe for the wire, and machined
>>>>most of the other parts himself.
>>>>
>>>>73, Leon
>>>
>>>I'm not sure I'd qualify anything requiring a machine lathe as being

>>>"simple".
>>
>>It is if one has a lathe. 8-)
>>
>>Strictly speaking, he wasn't making roller inductors, anyway, as the contact
>>was moving across the turns giving one turn resolution, like a rheostat. He
>>only used QRP. Making a proper roller inductor for high power like those
>>made by Henry would be quite difficult.
>>
>>73, Leon
>
>
>
> Difficult indeed!
>
> I worked at Barker & Williamson during the early 60s when they were
> still making these things. First of all, you have to go out and
> located silver plated bare wire for the coils. Then you're going to
> have to machine yourself a precision roller that also needs to be
> silver plated, and a silver plated rod to carry the roller with as
> little lateral friction as possible.
>
> The balance is comparatively simple, if you have a source for G7 or
> G10 material to fabricate the frame, and are comfortable in machining
> fiberglass-epoxy laminates to a reasonable degree of precision. (B&W
> of course used custom molded and glazed ceramics, not laminated
> fiberblass, but that is simply a nit!
>
> I personally wouldn't want to even attempt it. Far cheaper to buy a
> surplus variable inductor.
>
> Harry C.

3661. Re: Looking for roller inductors

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-15 01:10:58 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10pg0gqa8b7rf43@corp.supernews.com>
Source record: 22145

Ken Scharf wrote:

> The biggest problem with a home brew rotor inductor
> is going to be a low resistance contact with no
> dead spots as the coil is rotated.
>
> For an antenna tuner, we can make do with a tapped
> coil and a small variable inductance in series with
> the tapped coil to "fill in" the gaps between the taps.
> To do this I would use a 'blast from the past', a variometer.
> This consists of two coils, one fixed and one rotating inside
> the fixed coil. If both are the same inductance (so the outer
> one is would with wider spacing than the inner) when they are
> in "series aiding" the total inductance will be the sum, plus
> the mutal inductance. When they are series opposing, the total
> inductance will approace zero. (over simplifcation).
> Variometers have NO moving contacts so they are easier to build
> than rotary coils. They can't be made as large in inductance
> without avoiding other problems (large distributed capacitance),
> but a small variometer in series with a multitapped coil is a
> good compromise.
>
>
>> "Leon Heller" <leon_heller@hotmail.com> wrote in message
>> news:<4195f440$0$1558$cc9e4d1f@news-text.dial.pipex.com>...
>>
>>> "Tim Wescott" <tim@wescottnospamdesign.com> wrote in message
>>> news:10pb9i118si3e2a@corp.supernews.com...
>>>
>>>> Leon Heller wrote:
>>>>
>>>>> "Gregg" <nospam@unknown.org> wrote in message
>>>>> news:t4eld.149312$df2.42254@edtnps89...
>>>>>
>>>>>
>>>>>> I stumbled across a few at surplus outlets, I'll see if I can dig up
>>>>>> URL's. $50 to $150 USD, depending on KW rating.
>>>>>>
>>>>>> You can build your own fairly simple though, for a lot less :-)
>>>>>
>>>>>
>>>>>
>>>>> An old-timer I used to know made his own from plastic drain pipe.
>>>>> He used a lathe for cutting a spiral grove in the pipe for the

>>>>> wire, and machined most of the other parts himself.
>>>>>
>>>>> 73, Leon
>>>>
>>>>
>>>> I'm not sure I'd qualify anything requiring a machine lathe as being
>>>> "simple".
>>>
>>>
>>> It is if one has a lathe. 8-)
>>>
>>> Strictly speaking, he wasn't making roller inductors, anyway, as the
>>> contact was moving across the turns giving one turn resolution, like
>>> a rheostat. He only used QRP. Making a proper roller inductor for
>>> high power like those made by Henry would be quite difficult.
>>>
>>> 73, Leon
>>
>>
>>
>>
>> Difficult indeed!
>>
>> I worked at Barker & Williamson during the early 60s when they were
>> still making these things. First of all, you have to go out and
>> located silver plated bare wire for the coils. Then you're going to
>> have to machine yourself a precision roller that also needs to be
>> silver plated, and a silver plated rod to carry the roller with as
>> little lateral friction as possible.
>>
>> The balance is comparatively simple, if you have a source for G7 or
>> G10 material to fabricate the frame, and are comfortable in machining
>> fiberglass-epoxy laminates to a reasonable degree of precision. (B&W
>> of course used custom molded and glazed ceramics, not laminated
>> fiberblass, but that is simply a nit!
>>
>> I personally wouldn't want to even attempt it. Far cheaper to buy a
>> surplus variable inductor.
>>
>> Harry C.

If your antenna tuner has two caps then you can often just use the
tapped inductor, with no rotary at all (says Tim, who's antenna tuner
has a rotary inductor...).

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

3662. Auction ends in 1 hour! 2 Watt FM Stereo Broadcast 88-108 MHz LCD Digital PLL Transmitter

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-15 02:17:31 UTC
From: righteous-jude <nospam@noreply.com>
Message-ID: <BDBD5FCB.728E%nospam@noreply.com>
Source record: 22146

2 Watt FM Stereo Broadcast 88-108 MHz LCD Digital PLL Transmitter

Auction ends in 1 hour!

Ebay item #: 5730774971

Ends Nov-14-04 19:13:56 PST

My Ebay Feedback rating is 100% positive.

Ebay user ID: righteous-jude

Direct link:

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=4675&item=5730774971

This transmitter is an assembled and tested unit -- not a kit.

This FM Stereo transmitter is well-known among Ebayer's as being the best transmitter you can get for the money. You'd have to buy a commercial brand FM exciter (such as a Harris) to exceed the specs of this unit. On virtually all FM receivers you would not hear the difference.

You could hook up and transmit any sound source you want, such as:

1. The sound output directly from your computer (to play MP3's) using iTunes or any software you like.

2. Directly connect an iPod, CD Player, tape deck, an XM Satellite Radio etc. right to the transmitter.

3. Use a professional mixer board if you want to "DJ" live. A decent Behringer UB802 Mixer is only $49. Then you could mix and cross fade between two different stereo sources LIVE. Add a decent microphone ($19) so you can talk and people won't know you aren't a commercial station until they realize "Hey, why aren't there any advertisements?"

This FM transmitter is DIGITAL (not analog) and can equal the sound of commercial FM stations. It can transmit anywhere between 88-108 MHz. It outperforms ANY of the Ramsey or other so-called "kit" transmitters, including the "export" version of the FM-100B which Ramsey sells for $429.99 - which is WAY more than the cost of the transmitter I'm selling.

Depending on the quality of the antenna you connect to it* (see "NOTE" section below) and how high up in the air it is, it is possible to get about a 1.5 mile range using a simple homemade outdoor wire antenna, or over 5 miles of range with a $70 pre-made omni directional roof-mounted antenna.

This transmitter has a filtered RF output which means it puts out a clean signal. RF filtering is important to avoid interfering with other FM stations, or if you intend to add an RF Power Amplifier* to increase your range. Most other low cost FM transmitters have bad RF harmonic suppression which means they cause a lot of interference to TV's and radios in your neighborhood, which will attract attention to you from people like Cable TV technicians (something you definitely want to avoid).

For the technical stuff:

This transmitter uses 16-bit Direct Digital Synthesis (D.D.S.) modulation of PLL carrier using 16-Bit digital oversampling, just like the Harris and other Digital-type professional FM Exciters do.

This transmitter is a new design and DOES NOT use the "BA" or "Rohm" analog chip - ANYWHERE IN IT AT ALL. Which is a good thing.

The heart of the transmitting circuit uses a DSC (Digital Signal Controller). This is a 16 bit DSP microcontroller with on-chip Flash, RAM, A/Ds, PWM, and 200k of EEPROM.

D.D.S. modulation technology is used to generate and modulate the carrier signal of higher quality FM Broadcast exciters.

I can't reveal the complete design, but the heart of it uses a Cypress Semiconductor DSC.

A Motorola-designed Class-A linear wide-band amp module (originally designed for use by cable-company operators as line transmission amplifiers) results in virtually no unwanted spurious harmonic output, high reliability and EXTREME SWR ruggedness. The RF output of this transmitter will withstand greater than a 30:1 SWR mismatch without failure. Which means if your antenna shorts-out or dies, this transmitter will not fail.

The transmitter has a LCD digital display, an on-screen menu system with two buttons for adjusting operating parameters such as transmitting frequency, modulation level, MPX pilot level, etc. It can transmit in mono or stereo and runs on 12-24 volts DC input.

Here are the specifications for this transmitter (from the manufacturer):

Transmission Frequency: Adjustable between 87-108 MHz
Tuning Steps: 10 kHz
RF Power Output*: Typ 1Watt @ 13V or 2 Watts @ 24V
Spurious RF Emissions: Better than -45 dB ref. to carrier
Frequency Stability: PLL Typ +/-1KHz
SWR Ruggedness: Withstands 30:1 SWR mismatch
RF Output Connector: BNC type
Audio Input Sensitivity: 0.8V rms for +/- 75 KHz deviation
Signal To Noise Ratio: 60 dBu
Frequency Response: Flat from 20 Hz to 15 KHz
Stereo Separation: >40 dB
Pre-emphasis: 75 uS (standard FCC spec for U.S. FM radio)
Audio Distortion: Better than 0.2 % THD

Audio Input Connectors: RCA Phono Jacks
Power Jack: Coaxial type, 5.5mm O.D. 2.1mm I.D. center positive
DC Power Input: 12 to 24 Vdc Regulated 600mA

I won't list all the details here, you can learn them all by going to http://www.Ebay.com and entering item # 5730774971 using Ebay's "Search" Feature.

This item will be available for only 1 more hour:
auction ends Nov-14-04 19:13:56 PST

"Yeah, OK all that stuff is great, but how can I tell how good this transmitter will sound before I buy it?"

The Ebay auction listing gives instructions for downloading MP3 sound files of recordings made of the FM transmitter signal received live, on-the-air. You can judge for yourself.

** Please read the section of the auction explaining how I got the best sound quality from this transmitter, and how the live off-the-air MP3 recordings were made. **

*NOTE: If you are concerned about gov't compliance regarding the unlicensed use of this transmitter within the United States (or elsewhere), an "RF Attenuator" (also known as a T-pad) may be attached to the output of this transmitter. This is a simple screw-on device which will reduce the transmitter's RF output power to a level within the guidelines mandated by the country in which you intend to operate this transmitter. Guidelines vary from country to country. In the U.S. unlicensed operation of this transmitter is permitted under the mandate of the FCC's guidelines for "Unlicensed Operation of Part 15 Transmitters", provided you do not exceed certain restrictions such as RF output level or type of antenna. Compliance guidelines may be viewed at:

www.fcc.gov/mb/audio/lowpwr.html

3663. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-15 04:43:22 UTC
From: Rich The Philosophizer <null@example.net>
Message-ID: <pan.2004.11.15.03.50.01.767868@neodruid.org>
Source record: 22147
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Sun, 14 Nov 2004 13:38:09 +0000, Paul Burridge wrote:
> On Sun, 14 Nov 2004 04:59:46 GMT, Rich The Philosophizer
>>I would really believe this is a gag if you hadn't already shown that
>>you have the mentality of a neocon.
>
> ??
> Example?

I went on a quest.

Sheesh. OK, you're showing the same mentality by your blockheadedness
about the electricity.

I came up with "neocon" because of election hangover, and probably
confused names because of the frenzy.

So, sorry if I got the wrong guy, but upon reviewing the thread,
if it ain't a gag that you're really dragging out, in which case,
either congratulations or you should be ashamed of yourself, but
if not, then you're one of the most stubborn, blockheaded people
I've ever encountered, republican _or_ democrat!

Does this clear things up a bit?

Thanks,
Rich

3664. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-15 07:13:38 UTC
From: Norb <d@e.v>
Message-ID: <41985720$1@news.vo.lu>
Source record: 22048
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

> IF you have to ask, then you don't belong in the U.S. if in fact you do
> live here. IF you are a resident, then you're a traitor.
> THIS country pays dearly in money and lives for the rest of the candy ass
> world.

You can't get everything for money, looks like some of you haven't got that message.

3665. ANZAC component data?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-15 07:45:07 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <7rVF4iDD6FmBFArl@ifwtech.co.uk>
Source record: 22049

Is there a source of ANZAC component data on the web?

I'm looking specifically for data on the THV-50 2-port hybrid (power divider) and the CD-50-4 4-port hybrid.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

3666. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-15 07:53:32 UTC
From: Active8 <reply2group@ndbbm.net>
Message-ID: <ts2f7su1s8ly$.dlg@news.individual.net>
Source record: 22050
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Mon, 15 Nov 2004 04:43:22 GMT, Rich The Philosophizer wrote:

> On Sun, 14 Nov 2004 13:38:09 +0000, Paul Burridge wrote:
>> On Sun, 14 Nov 2004 04:59:46 GMT, Rich The Philosophizer
>>>I would really believe this is a gag if you hadn't already shown that
>>>you have the mentality of a neocon.
>>
>> ??
>> Example?
>
> I went on a quest.
>
> Sheesh. OK, you're showing the same mentality by your blockheadedness
> about the electricity.
>
> I came up with "neocon" because of election hangover, and probably
> confused names because of the frenzy.
>
> So, sorry if I got the wrong guy, but upon reviewing the thread,
> if it ain't a gag that you're really dragging out, in which case,
> either congratulations or you should be ashamed of yourself, but
> if not, then you're one of the most stubborn, blockheaded people
> I've ever encountered, republican _or_ democrat!
>
> Does this clear things up a bit?
>

Maybe I can explain. Paul is basically a moron when it comes to
electronics - real slow on the uptake, engineering math challenged,
Jerry's kid. He probably OP'd this thread without thinking of the
work required to move those f*cking electrons - the more you move in
a given time, the more power you consume. Goes back to mechanics and
horsepower. OTOH, he *is* a f*cking troll, basically, so you might
just ignore him. I sometimes look at the responses to him because
you never know when someone's gonna blast him (like you're getting
close to doing) and sometimes (not this time) it's good for a
chuckle. 'specially after a few good Long Islands :)

--
Best Regards,
Mike

3667. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-15 07:55:33 UTC
From: Active8 <reply2group@ndbbm.net>
Message-ID: <1o9zgq90yjk3h$.dlg@news.individual.net>
Source record: 22051
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Sun, 14 Nov 2004 22:37:27 +0000, Paul Burridge wrote:

> On 14 Nov 2004 12:35:00 -0800, snarflemike@yahoo.com (Mike Silva)
> wrote:
>
>>Paul Burridge <pb@notthisbit.osiris1.co.uk> wrote in message
news:<bre9p0t3e6vf6asvtcd9mk98of084siu4u@4ax.com>...
>>
>>> I use no current and they effectively supply no voltage. Why do I get
>>> billed for electricity usage when I clearly can't have used any?
>>
>>Because if you don't they'll turn off their non-voltage and
>>non-current and you won't like the difference (even though there isn't
>>any).
>
> You're probably right. Sigh... I still think I'm a dumbass sucker,
> though. But at least no one seems to agree with me on that.

They do on the dumbass part.
--
Best Regards,
Mike

3668. Re: Looking for roller inductors

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-15 09:18:33 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2vrapsF2ohak5U1@uni-berlin.de>
Source record: 22052

That's why the contact is spring-loaded in some way.

"Ken Scharf" <wa2mzeNOTTHIS@bellsouth.net> wrote in message
news:i_Sld.14085$jE2.9738@bignews4.bellsouth.net...
> The biggest problem with a home brew rotor inductor
> is going to be a low resistance contact with no
> dead spots as the coil is rotated.

3669. F.S. RCA 40673 Mosfets and MCL Mixers

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-15 10:54:34 UTC
From: Rob <rob34115@earthlink.net>
Message-ID: <KV%Id.17292$Gm6.4430@newsread3.news.atl.earthlink.net>
Source record: 22053

I have 30 NOS RCA 40673 mosfets for sale. These are going for $6.50 each on Dan`s small parts website and up to $12.00 each at other parts houses when you can find them. I am selling them at $3.50 each or $30.00 for ten of them. These are getting scarce as "Hen`s teeth"!! I also have Mini Circuits SBL-1 and SBL-1H-8 mixers. I have 15 of each of these and I am selling them for $2.50 a piece or 10 of them for $20.00. These are N.O.S. from 1995, but are new and unused. Thank`s, Rob WB8VWI

3670. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-15 13:59:35 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <0adhp0p7fptgo5ur763cef3811aq14r6c5@4ax.com>
Source record: 22054
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Mon, 15 Nov 2004 04:43:22 GMT, Rich The Philosophizer
<null@example.net> wrote:

>I went on a quest.
>
>Sheesh. OK, you're showing the same mentality by your blockheadedness
>about the electricity.

Er, you seriously didn't realise I was trolling?? How *stoopid* do you
think I am? No, don't answer that. ;-)
>
>I came up with "neocon" because of election hangover, and probably
>confused names because of the frenzy.
>
>So, sorry if I got the wrong guy, but upon reviewing the thread,
>if it ain't a gag that you're really dragging out, in which case,
>either congratulations

Thanks.

>or you should be ashamed of yourself, but
>if not, then you're one of the most stubborn, blockheaded people
>I've ever encountered, republican _or_ democrat!
>
>Does this clear things up a bit?

Not really. I'm neither republican nor democrat. I'm a Britlander so
those terms are inapplicable. My politics are actually quite
middle-of-the-road and moderate, actually. Not that we should be
discussing such things here, anyway.
HTH.
--

"What is now proved was once only imagin'd." - William Blake, 1793.

3671. Re: ANZAC component data?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-15 15:54:15 UTC
From: Per-Åke Andersson <pake@extrafoi.se>
Message-ID: <cnajf8pmm1@mercur.foi.se>
Source record: 22055

Ian White, G3SEK wrote:

> Is there a source of ANZAC component data on the web?
>
> I'm looking specifically for data on the THV-50 2-port hybrid (power
> divider) and the CD-50-4 4-port hybrid.
>
>

Anzac bought. by MAcom bought by Tyco.

TVH-50-2 is here
http://macom.com/products/products_spec.jsp?pn=THV-50

But cant find the CD-50-2 here
http://macom.com/products/product_oview.jsp

/Ake

--
Remove "extra" in my e-mail

3672. Miller Vernier Panel Dial Available

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-15 18:00:09 UTC
From: Al <no.spam@wanted.com>
Message-ID: <no.spam-601F2D.12572115112004@news.verizon.net>
Source record: 22056

I recently picked up a used Miller vernier panel dial assembly, P/N 10035. It is about 6.5 by 7.75 inches. It has five scales on it labeled A,B,C,D and E as well as a 0-100 scale at the bottom. It takes a little over 6 turns of the knob to move the slider from 0 to 100.

If you're interested, send email to afjay@earthlink.net. I can then send you some jpgs showing its condition. You can have it for the cost of shipping and the price is whatever it's worth to you.

Al

3673. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-15 18:30:13 UTC
From: John Fields <jfields@austininstruments.com>
Message-ID: <s4thp0pjqr9vg2ob0lvunj8p5jtqgsum23@4ax.com>
Source record: 22057
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Mon, 15 Nov 2004 04:43:22 GMT, Rich The Philosophizer
<null@example.net> wrote:

>I came up with "neocon" because of election hangover, and probably
>confused names because of the frenzy.

"Neocon" as a cuntraction for "neoconservative", or what?

>So, sorry if I got the wrong guy, but upon reviewing the thread,
>if it ain't a gag that you're really dragging out, in which case,
>either congratulations or you should be ashamed of yourself, but
>if not, then you're one of the most stubborn, blockheaded people
>I've ever encountered, republican _or_ democrat!

Bwahahahahaha!!! IKYABWAI if I ever heard one!! Thanks for the larf!

>Does this clear things up a bit?

A bunch!

--
John Fields

3674. Practical Wireless Magazine (UK) collection for sale on Ebay

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-15 19:35:24 UTC
From: Dennis Armstrong <dba@corewise.demon.co.uk>
Message-ID: <cnb0ds$r6v$3$830fa79d@news.demon.co.uk>
Source record: 22059

Hi all

I am selling my collection of Practical Wireless magazines 91 issues
from 1965 to 1979 its here:-

http://cgi.ebay.co.uk/ws/eBayISAPI.dll?ViewItem&rd=1&item=6936115412&ssPageName=STRK:MESE:IT

It was a good magazine with plenty of constructional articles.

regards

3675. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-15 19:36:29 UTC
From: ccon67@netscape.net
Message-ID: <e3fd5378.0411151136.27551841@posting.google.com>
Source record: 22058

Paul Burridge <pb@notthisbit.osiris1.co.uk> wrote in message
news:<738cp0trr26s0djguvt9nn1h8bqvfmre8p@4ax.com>...
> On Fri, 12 Nov 2004 19:37:28 -0500, **THE-RFI-EMI-GUY**
> <rhyolite@nettally.com> wrote:
>
> >Paul; You could drive ground rods into opposite corners of your property
> >and extract some of the power from the earth and run your house for
> >nothing at all! In fact If you dig a deep enough trench in the middle,
> >you could isolate the ground and get a bigger return current!
>
> Well, I don't see how that could work, but I had considered digging a
> trench around my boundary and thereby cutting off the return path for
> the other users' behind my house and demanding payment from the power
> co. to re-instate it. But then it's obvious the return current's only
> going to go deeper underground or around my property. It seems there's
> nothing I can do to make any dough out of this. :-(

Not sure, but somehwere it has to be stated that electric company MUST
provide an escape route for electrons they supllied to customers,
otherwise they will blow up your house in an eyeblink (assume you try
to steal their electrons). That's the only reason for the bill.

3676. looking for a 12V AC 2.5Amps heater transformer...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-15 20:16:15 UTC
From: Matt <matthieub@tareum.freeserve.co.uk>
Message-ID: <41990d8d$0$2430$626a14ce@news.free.fr>
Source record: 22060

Please contact me directly,

I am in France.

Regards,

Matt

3677. CUT HEADPHONE WIRE

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-15 21:55:35 UTC
From: michelrav@yahoo.com
Message-ID: <49b4a392.0411151355.67241519@posting.google.com>
Source record: 22061

I cut the wire on my headphones. If I press the clean cut together trying to adjust their position, I can get sound. If I strip the wires and connect them individually I get nothing at all. Can anyone help me understand this?

3678. Re: F.S. RCA 40673 Mosfets and MCL Mixers

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-15 22:06:42 UTC
From: Rob <rob34115@earthlink.net>
Message-ID: <4199286E.3020405@earthlink.net>
Source record: 22062

Rob wrote:
> I have 30 NOS RCA 40673 mosfets for sale. These are going for $6.50 each
> on Dan`s small parts website and up to $12.00 each at other parts houses
> when you can find them. I am selling them at $3.50 each or $30.00 for
> ten of them. These are getting scarce as "Hen`s teeth"!! I also have
> Mini Circuits SBL-1 and SBL-1H-8 mixers. I have 15 of each of these and
> I am selling them for $2.50 a piece or 10 of them for $20.00. These are
> N.O.S. from 1995, but are new and unused. Thank`s, Rob WB8VWI
Folks the mosfets and mixers have all been sold! Thank You!! Rob WB8VWI

3679. Re: ANZAC component data?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-15 22:12:40 UTC
From: Sven Lundbech <oz7s@hotmail.com>
Message-ID: <419929d6$0$86977$edfadb0f@dread16.news.tele.dk>
Source record: 22063

Dear Ian,

According to my trusty old 1984 Anzac catalouge,

THV-50-2 is a 2-200 MHz in-phase two-way power divider, 50 ohms, 0.5 dB loss, 30 dB isolation, 1 deg. phase (un)balance, 2.5 watts max rating, internal load dissipation 0.5 watts max. The cost was approx. $75...

vy 73
Sven Lundbech
OZ7S
President EDR
Former Tech. Editor, OZ Magazine

"Ian White, G3SEK" <G3SEK@ifwtech.co.uk> skrev i en meddelelse news:7rVF4iDD6FmBFArl@ifwtech.co.uk...
> Is there a source of ANZAC component data on the web?
>
> I'm looking specifically for data on the THV-50 2-port hybrid (power
> divider) and the CD-50-4 4-port hybrid.
>
>
> --
> 73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
> http://www.ifwtech.co.uk/g3sek

3680. Re: CUT HEADPHONE WIRE

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-15 23:14:25 UTC
From: Joel Kolstad <JKolstad71HatesSpam@Yahoo.Com>
Message-ID: <isSdncPeY6mQpQTcRVn-hQ@comcast.com>
Source record: 22064

"joejoe" <michelrav@yahoo.com> wrote in message
news:49b4a392.0411151355.67241519@posting.google.com...
>I cut the wire on my headphones. If I press the clean cut together
> trying to adjust their position, I can get sound. If I strip the
> wires and connect them individually I get nothing at all. Can anyone
> help me understand this?

What kind of insulation is on the headphone wires? I've seen many that use enameled copper, and it's very easy to 'solder' a couple of enameled wires together such that they physically stick together but don't make electrical contact with one another. This may be what's happening in your case.

---Joel

3681. E. F. Johnson Rotary Inductor 226-3

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-16 00:11:45 UTC
From: Joe Leadfoot <josephleadfoot@dumb.net>
Message-ID: <419945C1.8040005@dumb.net>
Source record: 22065

This unit is rated at 13.5 uh.

Does anyone have the per turn inductance for this unit? Approximately
2/3 of it is close wound, and one third is wide spaced.

Please send to plcooper@starband.net.

Thanks, Paul K6PY

3682. Re: Looking for roller inductors

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-16 00:43:01 UTC
From: Ken Scharf <wa2mzeNOTTHIS@bellsouth.net>
Message-ID: <S_bmd.27146$z3.1399@bignews5.bellsouth.net>
Source record: 22066

Airy R. Bean wrote:
> That's why the contact is spring-loaded in some way.
>
> "Ken Scharf" <wa2mzeNOTTHIS@bellsouth.net> wrote in message
> news:i_Sld.14085$jE2.9738@bignews4.bellsouth.net...
>
>>The biggest problem with a home brew rotor inductor
>>is going to be a low resistance contact with no
>>dead spots as the coil is rotated.
>
>
>
But if you need to install the tuner outdoors
remote controled via servo motors, guess how
long that sliding tap will give good contact?
At least sealed relays can be used for the
tap switch.

3683. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-16 00:45:26 UTC
From: Rich The Philosophizer <null@example.net>
Message-ID: <pan.2004.11.15.23.53.07.149261@neodruid.org>
Source record: 22067
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Mon, 15 Nov 2004 02:53:32 -0500, Active8 wrote:

> On Mon, 15 Nov 2004 04:43:22 GMT, Rich The Philosophizer wrote:
>
>> On Sun, 14 Nov 2004 13:38:09 +0000, Paul Burridge wrote:
>>> On Sun, 14 Nov 2004 04:59:46 GMT, Rich The Philosophizer
>>>>I would really believe this is a gag if you hadn't already shown that
>>>>you have the mentality of a neocon.
>>>
>>> ??
>>> Example?
>>
>> I went on a quest.
>>
>> Sheesh. OK, you're showing the same mentality by your blockheadedness
>> about the electricity.
>>
>> I came up with "neocon" because of election hangover, and probably
>> confused names because of the frenzy.
>>
>> So, sorry if I got the wrong guy, but upon reviewing the thread,
>> if it ain't a gag that you're really dragging out, in which case,
>> either congratulations or you should be ashamed of yourself, but
>> if not, then you're one of the most stubborn, blockheaded people
>> I've ever encountered, republican _or_ democrat!
>>
>> Does this clear things up a bit?
>>
>
> Maybe I can explain. Paul is basically a moron when it comes to
> electronics - real slow on the uptake, engineering math challenged,
> Jerry's kid. He probably OP'd this thread without thinking of the
> work required to move those f*cking electrons - the more you move in
> a given time, the more power you consume. Goes back to mechanics and
> horsepower. OTOH, he *is* a f*cking troll, basically, so you might
> just ignore him. I sometimes look at the responses to him because
> you never know when someone's gonna blast him (like you're getting
> close to doing) and sometimes (not this time) it's good for a
> chuckle. 'specially after a few good Long Islands :)

Well, I admit I got kinda confused when I went to google groups
and each time I spotted him chiming in on the election frenzy,
he was on the opposite side from the last time. ;-)

Cheers!
Rich

3684. Re: Miller Vernier Panel Dial Available

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-16 00:47:06 UTC
From: Ken Scharf <wa2mzeNOTTHIS@bellsouth.net>
Message-ID: <I2cmd.27178$z3.12383@bignews5.bellsouth.net>
Source record: 22068

Al wrote:
> I recently picked up a used Miller vernier panel dial assembly, P/N
> 10035. It is about 6.5 by 7.75 inches. It has five scales on it labeled
> A,B,C,D and E as well as a 0-100 scale at the bottom. It takes a little
> over 6 turns of the knob to move the slider from 0 to 100.
>
> If you're interested, send email to afjay@earthlink.net. I can then send
> you some jpgs showing its condition. You can have it for the cost of
> shipping and the price is whatever it's worth to you.
>
> Al
Would that be the slide rule string dial, or the cog belt varity?

3685. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-16 00:48:38 UTC
From: Rich The Philosophizer <null@example.net>
Message-ID: <pan.2004.11.15.23.56.23.199063@neodruid.org>
Source record: 22069
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Mon, 15 Nov 2004 13:59:35 +0000, Paul Burridge wrote:

> On Mon, 15 Nov 2004 04:43:22 GMT, Rich The Philosophizer
> <null@example.net> wrote:
>
>>I went on a quest.
>>
>>Sheesh. OK, you're showing the same mentality by your blockheadedness
>>about the electricity.
>
> Er, you seriously didn't realise I was trolling?? How *stoopid* do you
> think I am? No, don't answer that. ;-)
>>
>>I came up with "neocon" because of election hangover, and probably
>>confused names because of the frenzy.
>>
>>So, sorry if I got the wrong guy, but upon reviewing the thread,
>>if it ain't a gag that you're really dragging out, in which case,
>>either congratulations
>
> Thanks.
>
>>or you should be ashamed of yourself, but
>>if not, then you're one of the most stubborn, blockheaded people
>>I've ever encountered, republican _or_ democrat!
>>
>>Does this clear things up a bit?
>
> Not really. I'm neither republican nor democrat. I'm a Britlander so
> those terms are inapplicable. My politics are actually quite
> middle-of-the-road and moderate, actually. Not that we should be
> discussing such things here, anyway.
> HTH.

ID. ;-) This also explains my confusion when, while going through
google groups on author: Burridge I found way less political stuff
from you than I had had the impression that I had seen. Like, one
percent of what I had thought. :-)

So, sorry if I broke your game.)-;

Cheers!
Rich

3686. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-16 00:52:39 UTC
From: Rich The Philosophizer <null@example.net>
Message-ID: <pan.2004.11.16.00.00.23.308598@neodruid.org>
Source record: 22070
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Mon, 15 Nov 2004 12:30:13 -0600, John Fields wrote:

> On Mon, 15 Nov 2004 04:43:22 GMT, Rich The Philosophizer
> <null@example.net> wrote:
>
>
>>I came up with "neocon" because of election hangover, and probably
>>confused names because of the frenzy.
>
> ---
> "Neocon" as a cuntraction for "neoconservative", or what?

No, a contraction.

Thanks,
Rich

3687. Re: RF and GFCI

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-16 01:11:36 UTC
From: Joel <Joel@Joelworld.com>
Message-ID: <ctcmd.912209$Gx4.791797@bgtnsc04-news.ops.worldnet.att.net>
Source record: 22071

FOLLOW-UP

My 40meter dipole, which I just put up, hangs over a corner of my garage. About 5ft above the roof. I suppose that's close enough to trip GFCI's. And it's only about 15ft above ground. But it works great!
Someday I might have to put up some sort of vertical.
My old 20meter dipole, which is a little more out of the way, works fine. Doesn't trip any of the GFCI's.
I put a homemade air balun on the 40M yesterday. Didn't seem to make any diff.
Tripping GFCI's in the garage is mostly just a nusiance. I can put up with it. Although I have a 24hr timer on one circuit. But I wonder if it affects the neighbors' GFCI's. I don't think I'll ask them.

3688. Re: Looking for roller inductors

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-16 03:15:17 UTC
From: John Smith <kd5yikes@mindspring.com>
Message-ID: <9hemd.285$Tq6.28@newsread3.news.pas.earthlink.net>
Source record: 22072

"Gregg" <nospam@unknown.org> wrote in message
news:5cAld.151301$df2.57508@edtnps89...
> LOL! OK, ;-)
>
> Delrin rod, Acrylic pipe/rod, PVC plumbing (not to be used for VHF), is
> key to the project.
>
> There are many pubs out there on making variable capacitors, the ARRL
> Radio Amateur's Handbook, and lots on the net.

There are? In the Handbook?

Hmmmm. Okay, thanks.

John

3689. Re: Looking for roller inductors

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-16 03:17:33 UTC
From: John Smith <kd5yikes@mindspring.com>
Message-ID: <hjemd.288$Tq6.8@newsread3.news.pas.earthlink.net>
Source record: 22073

"Leon Heller" <leon_heller@hotmail.com> wrote in message
news:4195f440$0$1558$cc9e4d1f@news-text.dial.pipex.com...
> "Tim Wescott" <tim@wescottnospamdesign.com> wrote in message
> news:10pb9i118si3e2a@corp.supernews.com...
>> Leon Heller wrote:
>>> "Gregg" <nospam@unknown.org> wrote in message
>>> news:t4eld.149312$df2.42254@edtnps89...
>>>
>>>>I stumbled across a few at surplus outlets, I'll see if I can dig up
>>>>URL's. $50 to $150 USD, depending on KW rating.
>>>>
>>>>You can build your own fairly simple though, for a lot less :-)
>>>
>>>
>>> An old-timer I used to know made his own from plastic drain pipe. He
>>> used a lathe for cutting a spiral grove in the pipe for the wire, and
>>> machined most of the other parts himself.
>>>
>>> 73, Leon
>> I'm not sure I'd qualify anything requiring a machine lathe as being
>> "simple".
>
> It is if one has a lathe. 8-)

That's not true. You haven't taken my capabilities into consideration. Even
if I had a lathe, I wouldn't know how to use it.

John

3690. Re: ANZAC component data?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-16 05:31:19 UTC
From: Rick Karlquist N6RK <richard@karlquist.removethis.com>
Message-ID: <Bggmd.101439$R05.95482@attbi_s53>
Source record: 22074

Some Anzac parts are now made by Tyco. But for most
of them, you have to have a paper Anzac catalog (I have
carefully saved mine). Same thing with the old
Watkins-Johnson company that made mixers. Save
the paper catalog if you still have it.

Rick N6RK

"Ian White, G3SEK" <G3SEK@ifwtech.co.uk> wrote in message
news:7rVF4iDD6FmBFArl@ifwtech.co.uk...
> Is there a source of ANZAC component data on the web?
>
> I'm looking specifically for data on the THV-50 2-port hybrid (power
> divider) and the CD-50-4 4-port hybrid.
>
>
> --
> 73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
> http://www.ifwtech.co.uk/g3sek

3691. Re: ANZAC component data?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-16 07:37:33 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <3Ua2HZD94amBFAZZ@ifwtech.co.uk>
Source record: 22076

Rick Karlquist N6RK wrote:
>Some Anzac parts are now made by Tyco.

Thanks to everyone who pointed that out. The THV-50 is a current product on the website of M/A-COM, who bought ANZAC but were in turn gobbled up by Tyco.

The CD-50-4 remains a mystery, so far (but definitely not a typo - I'm looking at it right now).

>But for most
>of them, you have to have a paper Anzac catalog (I have
>carefully saved mine). Same thing with the old
>Watkins-Johnson company that made mixers. Save
>the paper catalog if you still have it.

I normally do save them, but threw out the ANZAC one about 15 years ago because I didn't have any of their parts... at that time.

Sadly, the whole catalog collection in the loft is now under threat, as we prepare for relocation next year. The very last to go will be the 1986 HP catalog, because that has most of my testgear in it!

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

3692. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-16 07:39:50 UTC
From: Kevin Aylward <salesEXTRACT@anasoft.co.uk>
Message-ID: <a9imd.22753$P7.6061@fe2.news.blueyonder.co.uk>
Source record: 22075
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

Rich The Philosophizer wrote:
> On Mon, 15 Nov 2004 12:30:13 -0600, John Fields wrote:
>
>> On Mon, 15 Nov 2004 04:43:22 GMT, Rich The Philosophizer
>> <null@example.net> wrote:
>>
>>
>>> I came up with "neocon" because of election hangover, and probably
>>> confused names because of the frenzy.
>>
>> ---
>> "Neocon" as a cuntraction for "neoconservative", or what?
>
> No, a contraction.

I think he meant the cuntraction, just as in "Good evening, Cuntstable,
I was not speeding at all."

Kevin Aylward
salesEXTRACT@anasoft.co.uk
http://www.anasoft.co.uk
SuperSpice, a very affordable Mixed-Mode
Windows Simulator with Schematic Capture,
Waveform Display, FFT's and Filter Design.

3693. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-16 08:04:27 UTC
From: Rich The Philosophizer <null@example.net>
Message-ID: <pan.2004.11.16.07.09.14.478596@neodruid.org>
Source record: 22077
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Tue, 16 Nov 2004 07:39:50 +0000, Kevin Aylward wrote:

> Rich The Philosophizer wrote:
>> On Mon, 15 Nov 2004 12:30:13 -0600, John Fields wrote:
>>
>>> On Mon, 15 Nov 2004 04:43:22 GMT, Rich The Philosophizer
>>> <null@example.net> wrote:
>>>
>>>
>>>> I came up with "neocon" because of election hangover, and probably
>>>> confused names because of the frenzy.
>>>
>>> ---
>>> "Neocon" as a cuntraction for "neoconservative", or what?
>>
>> No, a contraction.
>
> I think he meant the cuntraction, just as in "Good evening, Cuntstable,
> I was not speeding at all."

I know that's what he meant, and I was making a point.

Thanks again, Kevin.

?:^|
Rich

3694. Re: Looking for roller inductors

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-16 09:50:24 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2vu14hF2ohf28U1@uni-berlin.de>
Source record: 22078

If it's out-a-doors and remotely controlled, then
there's no reason for it to be in contact with the
atmosphere.

A large plastic sealable freezer container is what you want -
very easy to seal the wires with hot-melt plastic glue.

"Ken Scharf" <wa2mzeNOTTHIS@bellsouth.net> wrote in message
news:S_bmd.27146$z3.1399@bignews5.bellsouth.net...
> Airy R. Bean wrote:
> > That's why the contact is spring-loaded in some way.
> > "Ken Scharf" <wa2mzeNOTTHIS@bellsouth.net> wrote in message
> > news:i_Sld.14085$jE2.9738@bignews4.bellsouth.net...
> >>The biggest problem with a home brew rotor inductor
> >>is going to be a low resistance contact with no
> >>dead spots as the coil is rotated.
> But if you need to install the tuner outdoors
> remote controled via servo motors, guess how
> long that sliding tap will give good contact?
> At least sealed relays can be used for the
> tap switch.

3695. Re: Looking for roller inductors

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-16 09:51:39 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2vu14iF2ohf28U2@uni-berlin.de>
Source record: 22079

If you don't have any technical capabilities, RU a CBer?

"John Smith" <kd5yikes@mindspring.com> wrote in message
news:hjemd.288$Tq6.8@newsread3.news.pas.earthlink.net...
> That's not true. You haven't taken my capabilities into consideration.
Even
> if I had a lathe, I wouldn't know how to use it.

3696. Amateur Radio Elmers Resource Directory

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-16 14:08:05 UTC
From: "Paul W. Schleck" <pschleck@novia.net>
Message-ID: <419a091d$0$9373$45beb828@newscene.com>
Source record: 22080
Cross-posted to:
rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.homebrew,rec.radio.info

The Amateur Radio Elmers Resource Directory, a list of experts, mentors, and gurus for amateur radio on the Internet, went on indefinite hiatus on June 1, 2000 after just over 9 years of service. This decision was not forced upon me by anyone for any particular legal or technical reason. Rather, I decided to retire from maintenance to focus on other personal and professional interests and obligations.

I also felt that I had taken this project to the limit of my expertise and spare time in terms of format, visibility, automation of maintenance, effective recruiting, and even good Web design. It's clear that the Internet had changed greatly over the 9 years that the Directory had been in existence. The Directory had evolved from a flat text file edited on a VAX running VMS to a well-featured Web site. However, in that time, much better amateur radio-related web sites had emerged (including QRZ, Ham Radio Online, and ARRL) that make my site rather simplistic by comparison. Also, it's clear that many more enhancements would be required to make the Directory more maintainable and secure. One requirement that the Directory did not address is reasonably shielding the Elmers from having their E-mail addresses harvested for junk-mail distribution lists.

I want to emphasize that I do believe that using the Internet, the Usenet Newsgroups, and the World-Wide Web to bring Elmers and amateurs requiring assistance together continues to be worthwhile. Because of this, I would consider a highly-qualified and motivated volunteer to take it over immediately. The Directory consisted of a moderate number of large text files, scripts, and other configuration files. It's neatly arranged, and can probably be easily transplanted to another Unix/Linux environment. I would also be willing to assist with importing the data into a database such as mySQL. To help transition this project to another maintainer, I had prepared a maintainer's guide, available on request. The ideal candidate will be a motivated self-starter and self-teacher possessing several years of experience in:

- Unix/Linux
- C or Java
- HTML
- Perl or Python
- Procmail
- Version control systems such as SCCS, RCS, CVS, etc.

(this also implies that you have the above tools installed in your environment)

preferably on or more of the following:

- SQL
- PHP
- CSS

and have approximately 4-6 hours of spare time per month for maintenance. A track history of successfully completing projects would be a firm requirement. Please note that hosting sites are already available. Offers to host the project, but not maintain it, are not being sought at this time.

Familiarity with news.answers formatting conventions and the auto-faq FAQ Management and Posting Package would be a plus. Concrete proposals for enhancing the Directory to be a top-10 amateur-radio-related Web site would also be desirable. I would also consider the Directory being incorporated into an existing commercial amateur-radio-related Web site as long as the essential non-commercial character of the Directory was maintained.

If you feel that you possess the interest, motivation, and immediate, hit-the-ground-running, skill set to do this, please send your statement of interest and any proposals you wish to make regarding your plans for future enhancements to elmers-request@novia.net.

I would like to thank all of the volunteer Elmers, as well as courteous users of the Directory, for making this service a success, as well as an enjoyable experience for me over 9 years.

--
73, Paul W. Schleck, K3FU
elmers-request@novia.net

3697. Re: Miller Vernier Panel Dial Available

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-16 14:47:43 UTC
From: Al <no.spam@wanted.com>
Message-ID: <no.spam-4E03DC.09415416112004@news.verizon.net>
Source record: 22081

In article <I2cmd.27178$z3.12383@bignews5.bellsouth.net>,
Ken Scharf <wa2mzeNOTTHIS@bellsouth.net> wrote:

> Al wrote:
> > I recently picked up a used Miller vernier panel dial assembly, P/N
> > 10035. It is about 6.5 by 7.75 inches. It has five scales on it labeled
> > A,B,C,D and E as well as a 0-100 scale at the bottom. It takes a little
> > over 6 turns of the knob to move the slider from 0 to 100.
> >
> > If you're interested, send email to afjay@earthlink.net. I can then send
> > you some jpgs showing its condition. You can have it for the cost of
> > shipping and the price is whatever it's worth to you.
> >
> > Al
> Would that be the slide rule string dial, or the cog belt varity?

Dunn, haven't taken it apart and can't tell by looking though the holes.

Al

3698. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-16 15:38:54 UTC
From: John Fields <jfields@austininstruments.com>
Message-ID: <5l7kp0tntiguffua6b25ph436qdo06jmp7@4ax.com>
Source record: 22082
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

```
On Tue, 16 Nov 2004 07:39:50 GMT, "Kevin Aylward"
<salesEXTRACT@anasoft.co.uk> wrote:

>Rich The Philosophizer wrote:
>> On Mon, 15 Nov 2004 12:30:13 -0600, John Fields wrote:
>>
>>> On Mon, 15 Nov 2004 04:43:22 GMT, Rich The Philosophizer
>>> <null@example.net> wrote:
>>>
>>>
>>>> I came up with "neocon" because of election hangover, and probably
>>>> confused names because of the frenzy.
>>>
>>> ---
>>> "Neocon" as a cuntraction for "neoconservative", or what?
>>
>> No, a contraction.
>
>I think he meant the cuntraction, just as in "Good evening, Cuntstable,
>I was not speeding at all."

---
BINGO! Give that man a see-gar! :-)

--
John Fields
```

3699. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-16 15:51:18 UTC
From: John Fields <jfields@austininstruments.com>
Message-ID: <jr7kp05bdlkclbl8gjehgf18aogipciikn@4ax.com>
Source record: 22083
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

```
On Tue, 16 Nov 2004 08:04:27 GMT, Rich The Philosophizer
<null@example.net> wrote:

>On Tue, 16 Nov 2004 07:39:50 +0000, Kevin Aylward wrote:
>
>> Rich The Philosophizer wrote:
>>> On Mon, 15 Nov 2004 12:30:13 -0600, John Fields wrote:
>>>
>>>> On Mon, 15 Nov 2004 04:43:22 GMT, Rich The Philosophizer
>>>> <null@example.net> wrote:
>>>>
>>>>
>>>>> I came up with "neocon" because of election hangover, and probably
>>>>> confused names because of the frenzy.
>>>>
>>>> ---
>>>> "Neocon" as a cuntraction for "neoconservative", or what?
>>>
>>> No, a contraction.
>>
>> I think he meant the cuntraction, just as in "Good evening, Cuntstable,
>> I was not speeding at all."
>
>I know that's what he meant, and I was making a point.

---
Hmm... and what was your point then?
I thought you were just being your cuntrary little self.

--
John Fields
```

3700. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____ egedduqy

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-16 20:17:08 UTC
From: David Duxbury <dduxbury@cogeco.ca>
Message-ID: <Wetmd.11056$14.1230@read1.cgocable.net>
Source record: 22084
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

Good day Guy & Gals I live in Windsor Ontario Canada just across the river from Detroit, so I have quite a few american friends, you could say that this problem has nothing to do with me, but living in close proximity as many Canadians do, we are joined at the hip at President Bush might say even if he might not want to acknowledge it? we are friends and neighbours our economy is tied together big time, myself I dont like his foreign policy, we will need each other sometime or other no matter what anybody says. We all have the right to protect our country, just insulting each other is why we have our problems, talk is cheap but can achieve much. all the best Dave.

3701. FT-8000R

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-16 20:29:21 UTC
From: "J. Valdes" <jvaldes@whoi.edu>
Message-ID: <cndn9mcoa2@baldur.whoi.edu>
Source record: 22085

Looking for a schematic and parts placement diagram for the control head.
The 440 volume & squelch pots have broken the traces on the main board
at the connector. Can anyone help?? Please respond direct.
Thanks,
Jim, WA1GPO

3702. Re: CUT HEADPHONE WIRE

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-16 21:01:12 UTC
From: John Walton <jdwalton@comcast.net>
Message-ID: <O62dnYntarX-9AfcRVn-1A@comcast.com>
Source record: 22086

Could be like Litz wire where each strand is insulated -- not only
eliminating the "skin effect" but also making the cord very flexible -- you
can strip the wire with methylene chloride and then solder them up together
...

"Joel Kolstad" <JKolstad71HatesSpam@Yahoo.Com> wrote in message
news:isSdncPeY6mQpQTcRVn-hQ@comcast.com...
> "joejoe" <michelrav@yahoo.com> wrote in message
> news:49b4a392.0411151355.67241519@posting.google.com...
> >I cut the wire on my headphones. If I press the clean cut together
> > trying to adjust their position, I can get sound. If I strip the
> > wires and connect them individually I get nothing at all. Can anyone
> > help me understand this?
>
> What kind of insulation is on the headphone wires? I've seen many that
use
> enameled copper, and it's very easy to 'solder' a couple of enameled wires
> together such that they physically stick together but don't make
electrical
> contact with one another. This may be what's happening in your case.
>
> ---Joel
>
>

3703. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____ egedduqy

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-16 21:39:23 UTC
From: TBA <TBA@GOODOLEUSOFA.COM>
Message-ID: <Stumd.11021$Ae.621@newsread1.dllstx09.us.to.verio.net>
Source record: 22087
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

"David Duxbury" <dduxbury@cogeco.ca> wrote in message
news:Wetmd.11056$14.1230@read1.cgocable.net...
> Good day Guy & Gals I live in Windsor Ontario Canada just across the river
> from Detroit, so I have quite a few american friends, you could say that
> this problem has nothing to do with me, but living in close proximity as
> many Canadians do, we are joined at the hip at President Bush might say
> even if he might not want to acknowledge it? we are friends and neighbours
> our economy is tied together big time, myself I dont like his foreign
> policy, we will need each other sometime or other no matter what anybody
> says. We all have the right to protect our country, just insulting each
> other is why we have our problems, talk is cheap but can achieve much. all
> the best Dave.

Dave,

You make a valid point and I agree with prejudice. The following remarks are not intended directly at you, but to sort of address the issues a bit more.

MANY Americans disagree with Bush getting back in. In saying that, I'm not admitting to having voted or not - for him.
Some of his policies suck. What I do agree with, is his tone of "You're either with us or against us". But as I said, many of those who "claim" to be with us, end up stabbing us in the back.

Being our closest neighbor, yes... things could be "better" between the U.S. and Canada. They should be. While I may not agree with "everything" in principle, things could be much better.

Those who called us Stupid Americans, are A. Traitors from within or B. "so called" friends.

Though Bush won, Kerry could have had he had enough votes. So too could have Nader or any of the others in their individual parties. England or any other country has no reason whatsoever to try to sway our voting, nor do we of theirs or anyone else's. The voting machine has spoken - right or wrong, and we all must deal with it. LOTS of work in the U.S. alone needs done. There are domestic issues which need attended to. BUSH is capable of doing it, IF he chooses to do so.

Let's face it, the majority of all politicians are as crooked as a cork screw. It's always been that way and always will - regardless what country it is. It is up to the people to attempt change using the process as established. The other problem is, not many "qualified" or well rounded

candidates are there to choose from. Special Interest groups get their hands in it, and so on. IT SUCKS. But, we must deal with it. These last few elections it has gotten worse instead of better. They used to "Debate" policies, not get into the crap they've recently been doing. I don't give a shit if the man in the white house got a speeding ticket 20 years ago. I want to know what he's going to do NOW to give a helping hand to this country's needs. Actually, I'd like to see "Foreign" policy forgotten about for a while. Let the others do their thing whilest we take care of our own - for a change. So long as no one is fixing to attack us, I could give a shit less what they're doing. Live and let live!

"I" am not the one who started this thread of insults. But I'll be damned if I'll sit back as an American to have some half wit from another country cut down on us. Whether I like Bush or not, doesn't matter. HE IS THE PRESIDENT - as such, I have to respect that. BUT in the larger picture, I do my own part to defend their safety. Yes, we all have our disagreements and so on, what country doesn't? But we deal with it. We don't need outsiders casting their opinions when they aren't in any better position to do so. You can hate our government all you want, many of us do as well in some respects - be it the local, state or federal - especially if things aren't going our way... but to start a campaign of insults of our intelligence - man... that's biting a dog in the ass and sooner or later that dog will turn and bite back.

HOW DARE any one from another country call US - STUPID. IF you don't like it, come here and try to become a citizen, then you'll have every right to bitch and a chance to perhaps change things - at least with your vote since you must be an American {born here} to become President. You don't hear us whining about the Canadian/English or other governments do you? NO. Because WE DO NOT CARE. WE have enough problems here to take care of. SO, unless one is willing to put up - then SHUT UP. THAT is meant for the loud mouth who started this all and any of his supporters.. The jock straps that they are. The "government" gets involved more with the other countries, while most of us could care less. We're too busy eeking out our own existence. My opinion is to leave them all do their own thing, stay out of their business - even with foreign aid, which I'd love to see cut off forever. BUT - if they come here to attack or we hear of plans of an imminent attack on US - kick their asses and make them non returnable - period. Defend our borders and to hell with the rest. Let the other countries take care of their own problems - in every respect. This country does a hell of a lot for the world, we don't need the bull shit from the peons of society to dictate to us. Go back to your momma and grab a titty bottle, cause we're not listening.

I've said it once, I'll say it again.. IF you don't like the Americans... FINE - kindly remove yourselves from our Welfare roles. Don't cry wolf at every shadow - to have us come running to help. Put a pair of trousers on instead of your panties, step up to the plate and be a man - make a go of your own country and it's economy, and quit sponging off of U.S.

TBA

3704. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____ egedduqy

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-16 21:41:11 UTC
From: Marco <marco.m3van@btopenworld.com>
Message-ID: <cnds5npds1@hercules.btinternet.com>
Source record: 22088
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

"David Duxbury" <dduxbury@cogeco.ca> wrote in message
news:Wetmd.11056$14.1230@read1.cgocable.net...
> Good day Guy & Gals I live in Windsor Ontario Canada just across the river from Detroit, so I have
> quite a few american friends, you could say that this problem has nothing to do with me, but
> living in close proximity as many Canadians do, we are joined at the hip at President Bush might
> say even if he might not want to acknowledge it? we are friends and neighbours our economy is tied
> together big time, myself I dont like his foreign policy, we will need each other sometime or
> other no matter what anybody says. We all have the right to protect our country, just insulting
> each other is why we have our problems, talk is cheap but can achieve much. all the best Dave.

Dave
Absolutely agree, but some poster on here have their heads so stuck up b** that they cannot see the
reality of world life.
The world does not revolve around America (or any other country for that matter), and the sooner
they realise that no-one owes "them" a living, the soon that perhaps the whole world can live in
peace.
Well we can dream can't we ??
Marco

Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.797 / Virus Database: 541 - Release Date: 15/11/2004

3705. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____ egedduqy

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-16 21:47:45 UTC
From: TBA <TBA@GOODOLEUSOFA.COM>
Message-ID: <lBumd.11023$Ae.3621@newsread1.dllstx09.us.to.verio.net>
Source record: 22089
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

"Marco" <marco.m3van@btopenworld.com> wrote in message
news:cnds5npds1@hercules.btinternet.com...
>
> "David Duxbury" <dduxbury@cogeco.ca> wrote in message
> news:Wetmd.11056$14.1230@read1.cgocable.net...
>> Good day Guy & Gals I live in Windsor Ontario Canada just across the
>> river from Detroit, so I have quite a few american friends, you could say
>> that this problem has nothing to do with me, but living in close
>> proximity as many Canadians do, we are joined at the hip at President
>> Bush might say even if he might not want to acknowledge it? we are
>> friends and neighbours our economy is tied together big time, myself I
>> dont like his foreign policy, we will need each other sometime or other
>> no matter what anybody says. We all have the right to protect our
>> country, just insulting each other is why we have our problems, talk is
>> cheap but can achieve much. all the best Dave.
>
> Dave
> Absolutely agree, but some poster on here have their heads so stuck up b**
> that they cannot see the reality of world life.
> The world does not revolve around America (or any other country for that
> matter), and the sooner they realise that no-one owes "them" a living, the
> soon that perhaps the whole world can live in peace.
> Well we can dream can't we ??
> Marco
>
>

Ah, the ass hole farts again..... Excuse me, the rest of the world DOES revolve around US, with their revolving requests for our tax dollars and military aid. YOU need to realize - ASS HOLE, if it weren't for the US, YOU would be speaking German or Russian. DICK WAD..... READ YOUR F*&KING HISTORY BOOKS. Oooppps, I told you that before, so it's obvious you CAN'T read.

Problem is, you talk of dreaming, YOU ARE DREAMING. You never woke up to the reality that you speak of. Wake up and smell the tea.....

TBA

3706. New program - Coax Choke

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-16 23:05:33 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cne13t$3a9$1@hercules.btinternet.com>
Source record: 22090

```
New program SELFRES2.exe
-------------------------------------
Input data :

Length and diameter of solenoid.
Number of turns.
Conductor diameter
Length of line in which the coil is inserted.
Testing frequency.

Output data :

Coil self-capacitance.
Coil self-resonant frequency.
Choke impedance vs frequency.
Insertion loss of choke in dB.

Performance is based on a choke wound with coaxial cable of the same type as
the transmission transmission line in which it is inserted. Conductor
diameter is that of the coax outer. It behaves a single wire. Coax inner
diameter is of no consequence.

Choke insertion loss is a measure of the reduction in power radiated from
the feedline. But, despite the attention it attracts, actual power radiated
from the feedline WITH the choke will never be known because the power
radiated WITHOUT the choke is indeterminate.

SELFRES2 is 51 K-bytes. Download from website below in a few seconds. It is
not zipped-up and will run immediately.
----
.........................................................
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
.........................................................
```

3707. Montreal Fox Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-17 00:57:06 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10pl8em3q0ulp25@corp.supernews.com>
Source record: 22091

Anybody on the list who has experience with the Montreal Fox? I just got one to the point where I can start entering call signs, and it's acting very strange -- I can enter some letters & numbers, but others won't go, and if I try my callsign it just pukes.

Is this a known problem, or do I have a unique issue here?

Thanks in advance.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

3708. Re: Miller Vernier Panel Dial Available

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-17 01:16:27 UTC
From: Ken Scharf <wa2mzeNOTTHIS@bellsouth.net>
Message-ID: <IAxmd.20232$WC6.16725@bignews3.bellsouth.net>
Source record: 22092

Al wrote:
> In article <I2cmd.27178$z3.12383@bignews5.bellsouth.net>,
> Ken Scharf <wa2mzeNOTTHIS@bellsouth.net> wrote:
>
>
>>Al wrote:
>>
>>>I recently picked up a used Miller vernier panel dial assembly, P/N
>>>10035. It is about 6.5 by 7.75 inches. It has five scales on it labeled
>>>A,B,C,D and E as well as a 0-100 scale at the bottom. It takes a little
>>>over 6 turns of the knob to move the slider from 0 to 100.
>>>
>>>If you're interested, send email to afjay@earthlink.net. I can then send
>>>you some jpgs showing its condition. You can have it for the cost of
>>>shipping and the price is whatever it's worth to you.
>>>
>>>Al
>>
>>Would that be the slide rule string dial, or the cog belt varity?
>
>
> Dunn, haven't taken it apart and can't tell by looking though the holes.
>
> Al
The cog belt type is identified by the square tubing that the cog belt
rides in. Other kind is totally internal. Cog belt kind of drive is
a little rare, a Millen experiment if you will.

3709. Re: CUT HEADPHONE WIRE

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-17 02:22:37 UTC
From: Alan Peake <adpeake@killspam.internode.on.net>
Message-ID: <419AB5ED.3010909@killspam.internode.on.net>
Source record: 22093

> I cut the wire on my headphones. If I press the clean cut together
> trying to adjust their position, I can get sound. If I strip the
> wires and connect them individually I get nothing at all. Can anyone
> help me understand this?

I got caught on this one too. It wasn't headphones but a int/ext temp gauge.
The external line broke and I stripped the wires and resoldered them. No
output.
On closer inspection, the two wires were actually very small shielded
wires (I'm not too good in the eyesight department these days) and I'd
stripped the outer and the inner insulation in one go.
Have a closer look at your headphone wire.
Alan

3710. PIC 16F84 -- Eh?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-17 05:19:49 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10plnr9sstscfd9@corp.supernews.com>
Source record: 22094
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.components

Can someone with experience with the part tell me if there are
sufficient differences between the PIC 16F84 and the 16F84A to cause
problems during EEPROM write? I have purchased the "A" part for a
circuit (and software) that calls out the plain-jane version. I'm
having problems (described below) that are either the thing locking up
in mid-write or are _really weird_.

Tim Wescott wrote:

> Anybody on the list who has experience with the Montreal Fox? I just
> got one to the point where I can start entering call signs, and it's
> acting very strange -- I can enter some letters & numbers, but others
> won't go, and if I try my callsign it just pukes.
>
> Is this a known problem, or do I have a unique issue here?
>
> Thanks in advance.
>

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

3711. Re: PIC 16F84 -- Eh?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-17 06:12:33 UTC
From: dplatt@radagast.org
Message-ID: <10plquh29lh6f58@corp.supernews.com>
Source record: 22095
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.components

In article <10plnr9sstscfd9@corp.supernews.com>,
Tim Wescott <tim@wescottnospamdesign.com> wrote:

>Can someone with experience with the part tell me if there are
>sufficient differences between the PIC 16F84 and the 16F84A to cause
>problems during EEPROM write?

I suggest you go right to the horses's mouth: the 84->84A migration
guide is at http://ww1.microchip.com/downloads/en/DeviceDoc/30072b.pdf

It looks to me as if there are some voltage, and timing differences
involving access to the EEPROM. Dunno whether that's the cause of
your lockups, though.

http://ww1.microchip.com/downloads/en/DeviceDoc/80083b.pdf is the
16F84A errata document.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

3712. Re: PIC 16F84 -- Eh?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-17 06:40:18 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10plsi53tdhpgdf@corp.supernews.com>
Source record: 22096
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.components

Dave Platt wrote:
> In article <10plnr9sstscfd9@corp.supernews.com>,
> Tim Wescott <tim@wescottnospamdesign.com> wrote:
>
>
>>Can someone with experience with the part tell me if there are
>>sufficient differences between the PIC 16F84 and the 16F84A to cause
>>problems during EEPROM write?
>
>
> I suggest you go right to the horses's mouth: the 84->84A migration
> guide is at http://ww1.microchip.com/downloads/en/DeviceDoc/30072b.pdf
>
> It looks to me as if there are some voltage, and timing differences
> involving access to the EEPROM. Dunno whether that's the cause of
> your lockups, though.
>
> http://ww1.microchip.com/downloads/en/DeviceDoc/80083b.pdf is the
> 16F84A errata document.
>
Hard to say -- it's not very definitive.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

3713. Re: PIC 16F84 -- Eh?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-17 10:26:20 UTC
From: mike <spamme0@netscape.net>
Message-ID: <419B274C.4060703@netscape.net>
Source record: 22097
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.components

Tim Wescott wrote:
> Dave Platt wrote:
>
>> In article <10plnr9sstscfd9@corp.supernews.com>,
>> Tim Wescott <tim@wescottnospamdesign.com> wrote:
>>
>>
>>> Can someone with experience with the part tell me if there are
>>> sufficient differences between the PIC 16F84 and the 16F84A to cause
>>> problems during EEPROM write?
>>
>>
>>
>> I suggest you go right to the horses's mouth: the 84->84A migration
>> guide is at http://ww1.microchip.com/downloads/en/DeviceDoc/30072b.pdf
>>
>> It looks to me as if there are some voltage, and timing differences
>> involving access to the EEPROM. Dunno whether that's the cause of
>> your lockups, though.
>>
>> http://ww1.microchip.com/downloads/en/DeviceDoc/80083b.pdf is the
>> 16F84A errata document.
>>
> Hard to say -- it's not very definitive.
>

Been a long time since I looked, but as I recall, they inverted the
sense of one of the pins when they went to A???
mike

--
Return address is VALID.
500MHz Tek DSOscilloscope TDS540 $2200
http://nm7u.tripod.com/homepage/te.html
Wanted, 12.1" LCD for Gateway Solo 5300. Samsung LT121SU-121
Bunch of stuff For Sale and Wanted at the link below.
http://www.geocities.com/SiliconValley/Monitor/4710/

3714. Re: FT-8000R

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-17 19:19:26 UTC
From: W2RAC <rcook31@cfl.rr.com>
Message-ID: <4v8np01s3rf92e17p2rftj287cba363hce@4ax.com>
Source record: 21998

I fixed mine even after i pulled some traces off.
There are 3 gnds and 3 other connections from what i remember.
Should be able to just look at it and see where it goes.

If you call Yaesu they will fax you the page you need.

On Tue, 16 Nov 2004 15:29:21 -0500, "J. Valdes" <jvaldes@whoi.edu>
wrote:

>Looking for a schematic and parts placement diagram for the control head.
>The 440 volume & squelch pots have broken the traces on the main board
>at the connector. Can anyone help?? Please respond direct.
>Thanks,
>Jim, WA1GPO

3715. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-18 02:20:16 UTC
From: "Jim L." <jfladd@flash.net>
Message-ID: <AFTmd.19330$8%2.3421@newssvr15.news.prodigy.com>
Source record: 21999
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

Hi- If you are not using any "electricity" then turn off your main circuit breaker. You should not notice any difference. Jim

Paul Burridge <pb@notthisbit.osiris1.co.uk> wrote in message news:bre9p0t3e6vf6asvtcd9mk98of084siu4u@4ax.com...
> The power company run a line to my house. They supply me with
> electricity. This amounts to a 230V, 65A facility at the distribution
> board in a cupboard under the stairs. I run all my stuff from that
> board. The board contains several RCBOs that trip-out in the event of
> any leakage current being sensed. If current in = current out; they're
> happy and won't trip. Because they don't trip out, I conclude I don't
> use any current.
> The voltage supplied is 230VAC RMS. Since this is alternating between
> equal positive and negative half-cycles, the average level of this
> voltage supply is zero.
> I use no current and they effectively supply no voltage. Why do I get
> billed for electricity usage when I clearly can't have used any?
> --
>
> "What is now proved was once only imagin'd." - William Blake, 1793.

3716. Re: Looking for roller inductors

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-18 08:41:35 UTC
From: ON5MJ <my_call_sign@skynet.be>
Message-ID: <419c5f42$0$7834$ba620e4c@news.skynet.be>
Source record: 22000

Thank you again all OM for your interesting replies.

This one from Ken could be worth the effort of investigation. I also thank Bob who replied me personnally.

Did somebody try to replace a roller coil by a serie made of a tapped coil and a variable capacitor ?

73 de Jacques - ON5MJ

3717. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____ egedduqy

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-18 10:37:31 UTC
From: epicphart <nahhhYouDontWantIt@nahh.net>
Message-ID: <419C7B6B.6080400@nahh.net>
Source record: 22001
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

Renee wrote:

no such thing as a stupid american.... hope all ya like...fuckwit
tourists are the only ones who partake in this belief.

send me an email.... i'll hook u up wit some prime property. hehhhehehhehhe

cool?

lmao

3718. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-18 11:30:04 UTC
From: rwalter@engineer.com
Message-ID: <73aa3471.0411180330.57f01ab@posting.google.com>
Source record: 22002
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

There is no cancellation because the postive and negative peaks do not occur at the same time.

Paul Burridge <pb@notthisbit.osiris1.co.uk> wrote in message news:<9s7cp0luo989ildta0bienppgr38ieh4dn@4ax.com>...
> On Sat, 13 Nov 2004 11:42:11 +0000, Scott <acepilot@bloomer.net>
> wrote:
>
> >Huh? It's only 5:30AM here and I just got up but, the ONLY time you
> >aren't consuming power is at the zero crossing of the voltage and
> >current sine waves (assuming a purely resistive load where I and E are
> >in phase). Since you are paying for power, which is P=I X E, during the
> >negative half cycle, you have, for example, -168 Volts X -1 Amp = +168
> >Watts...try it on a calculator...negative times a negative is positive.
>
> Thanks, Scott. So you're basically agreeing with me. I owe the power
> co. for the positive cycles they send me; they owe *me* for the
> negative ones. Since they are equal and opposite, they cancel each
> other out. Overall, then, zero billing justified.
> We are being conned!!!

3719. Re: PIC 16F84 -- Eh?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-18 22:02:55 UTC
From: wouter@voti.nl
Message-ID: <419d1bcc.1477314135@news.xs4all.nl>
Source record: 22003
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.components

>Been a long time since I looked, but as I recall, they inverted the
>sense of one of the pins when they went to A???

No, they inverted the meaning of one of the bits in the configuration
word. IIRC the power-up delay timer.

Wouter van Ooijen

-- -------------------------------------
http://www.voti.nl
Webshop for PICs and other electronics
http://www.voti.nl/hvu
Teacher electronics and informatics

3720. Re: RMS power a misnomer (Was: CB "Swing"? (proper AM modulation))

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-18 23:52:41 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10pqdea7qt211e5@corp.supernews.com>
Source record: 22004

Thanks for the suggestions, Steve. I've updated the file to incorporate them. The new file is at http://eznec.com/Amateur/RMS_Power.pdf.

During recent trips to Powell's Technical Bookstore and the library, I looked through a number of books about electrical circuits which are oriented toward hobbyists and technicians (that is, ones lacking the math of a college level circuits text). I'm glad to say I didn't find any which were plainly wrong about average and RMS power (like the Joe Carr book quoted earlier here). But what nearly all of them do is to introduce RMS voltage and current pretty early on in the text, and explain that the RMS values of voltage and current are important because they represent equivalent heating values (which is correct). From then on, they simply use E and I with the assumption that they represent RMS values of voltage and current. At some point, they introduce the equation P = E * I or, in the more advanced ones, E * I * cos(phase angle), and maybe at that point mention that P is the equivalent heating power (which is also correct). What I didn't see in any of them was the fact that the product of the RMS values of E and I is the *average*, and *not* the RMS value of P. It's easy to understand, then, why a lot of people, like a number of the folks who posted comments and questions here, naturally (and incorrectly) assume that the product of Erms and Irms is RMS power. The books simply don't contain the information you'd need in order to discover that Erms * Irms = Pavg. Hopefully the paper posted by Rosenbaum and the one I did will help fill the void.

Roy Lewallen, W7EL

Steve Nosko wrote:
> Both the Rosenbaum and Lewallen papers look very good and well written.
>
> I would, however, Roy, make a more explicit statement that while RMS power
> can be calculated, is has no practical value for the normal considerations
> of power...and add a note indicating something like that:
>
> "The phrase "RMS Power" has been used in some circles not as an exact use of
> the term RMS, but rather as an informal "standard" that actually means
> "average power under specific text conditions". (I refer to an earlier post
> telling of the single channel, steady state audio power amp measurement)
> This use of the term "RMS" was originally initiated to call attention to the
> specific test. Unfortunately, this use has caused some confusion in the use
> of this terminology and is some of the motivation for the paper."
>
> 73, Steve, K9DCI
>

3721. Re: Looking for roller inductors

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-19 05:18:33 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10pr0h8lvblu641@corp.supernews.com>
Source record: 22005

ON5MJ wrote:

> Thank you again all OM for your interesting replies.
>
> This one from Ken could be worth the effort of investigation. I also thank
> Bob who replied me personnally.
>
> Did somebody try to replace a roller coil by a serie made of a tapped coil
> and a variable capacitor ?
>
> 73 de Jacques - ON5MJ
>
>
You could do that, but again, if you have enough other adjustments you
can probably make the fine adjustments on the caps.

My first antenna tuner, which I used for several months, was just an
L-network with a tapped coil (with an alligator clip) and a variable
cap. By reversing the direction of the thing and dinking around it
always worked for me -- and since it was on an open piece of aluminum I
could hear, smell and see when I was putting too much RF into it for the
little broadcast tuning cap!

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

3722. TP302S

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-19 09:54:09 UTC
From: Gege <gege@no_spam.fr>
Message-ID: <419dc201$0$24801$626a14ce@news.free.fr>
Source record: 22006

Hello,
I seek the characteristics and the package of the TP302S.
Sorry for me english
best regard
Alain (F1MDT)

3723. Re: RMS power a misnomer (Was: CB "Swing"? (proper AM modulation))

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-19 10:38:34 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <d5jrp0d05al2ln2kh9llittdv08gqsjej5@4ax.com>
Source record: 22007

On Thu, 18 Nov 2004 15:52:41 -0800, Roy Lewallen <w7el@eznec.com>
wrote:

>Thanks for the suggestions, Steve. I've updated the file to incorporate
>them. The new file is at http://eznec.com/Amateur/RMS_Power.pdf.
>
>During recent trips to Powell's Technical Bookstore and the library, I
>looked through a number of books about electrical circuits which are
>oriented toward hobbyists and technicians (that is, ones lacking the
>math of a college level circuits text). I'm glad to say I didn't find
>any which were plainly wrong about average and RMS power (like the Joe
>Carr book quoted earlier here). But what nearly all of them do is to
>introduce RMS voltage and current pretty early on in the text, and
>explain that the RMS values of voltage and current are important because
>they represent equivalent heating values (which is correct). From then
>on, they simply use E and I with the assumption that they represent RMS
>values of voltage and current. At some point, they introduce the
>equation P = E * I or, in the more advanced ones, E * I * cos(phase
>angle), and maybe at that point mention that P is the equivalent heating
>power (which is also correct). What I didn't see in any of them was the
>fact that the product of the RMS values of E and I is the *average*, and
>*not* the RMS value of P. It's easy to understand, then, why a lot of
>people, like a number of the folks who posted comments and questions
>here, naturally (and incorrectly) assume that the product of Erms and
>Irms is RMS power. The books simply don't contain the information you'd
>need in order to discover that Erms * Irms = Pavg. Hopefully the paper
>posted by Rosenbaum and the one I did will help fill the void.

Hi Roy,

there does seem to be an unsettling amount of misinformation, errors
and poor explanations in the majority of text books I've encountered,
I'm sorry to say. No wonder there's such a huge amount of confusion
surrounding these aspects of our hobby. :-(
--

"What is now proved was once only imagin'd." - William Blake, 1793.

3724. Re: ANZAC component data?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-19 10:49:16 UTC
From: Per-Åke Andersson <pake@extrafoi.se>
Message-ID: <cnkj3d$rl5$1@mercur.foi.se>
Source record: 22008

Ian White, G3SEK wrote:
> Is there a source of ANZAC component data on the web?
>
> I'm looking specifically for data on the THV-50 2-port hybrid (power
> divider) and the CD-50-4 4-port hybrid.
>
>

In "1970 product summary" I found under Hybrids 0-180 degrees:
CD-50 (no -4)
Frequency 80-1000 MHz (note Octave Coverage)
Max. loss 0.5dB
Max.Unbalance 2 degrees 0.3 dB
Max. SWR 1.5:1
Min. Isolation 25 dB
Power rating (Watts) 50

Some help I think. But you need a catalogue from mid/late 70 or
very early 80:th. (Its not in the 1984 cat.)
Fig. 4 could be the connector type, but in this 1970 cat the
connecor is B , N, S, T (BNC N SMA TNC).

/Per-Ake
--
Remove "extra" in my e-mail

3725. Re: Looking for roller inductors

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-19 11:13:35 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <30634pF2sp9vgU2@uni-berlin.de>
Source record: 22009

.....and now I understand your approach to DSP

"Tim Wescott" <tim@wescottnospamdesign.com> wrote in message
news:10pr0h8lvblu641@corp.supernews.com...
> My first antenna tuner, which I used for several months, was just an
> L-network with a tapped coil (with an alligator clip) and a variable
> cap. By reversing the direction of the thing and dinking around it
> always worked for me -- and since it was on an open piece of aluminum I
> could hear, smell and see when I was putting too much RF into it for the
> little broadcast tuning cap!

3726. Re: ANZAC component data?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-19 13:08:04 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <oBphyFB0AfnBFACB@ifwtech.co.uk>
Source record: 22010

Per-ï¿½ke Andersson wrote:
>Ian White, G3SEK wrote:
>> Is there a source of ANZAC component data on the web?
>> I'm looking specifically for data on the THV-50 2-port hybrid (power
>>divider) and the CD-50-4 4-port hybrid.
>>
>
>In "1970 product summary" I found under Hybrids 0-180 degrees:
>CD-50 (no -4)
>Frequency 80-1000 MHz (note Octave Coverage)
>Max. loss 0.5dB
>Max.Unbalance 2 degrees 0.3 dB
>Max. SWR 1.5:1
>Min. Isolation 25 dB
>Power rating (Watts) 50
>
>Some help I think. But you need a catalogue from mid/late 70 or
>very early 80:th. (Its not in the 1984 cat.)
>Fig. 4 could be the connector type, but in this 1970 cat the
>connecor is B , N, S, T (BNC N SMA TNC).

Thank you, Per-ï¿½ke!

It is indeed a 1/180deg hybrid coupler. At last, I think I understand the little drawing on the label.

The module is a square box with a port on each side. If you inject a signal into any port, it seems there will be a null at the port on the opposite side of the module; but only if the impedances connected to the other two ports are equal. So one use could be as a return loss bridge.

Alternatively, with a load terminating the opposite port, the two side ports can be used as either a 0deg or a 180deg hybrid power divider with good isolation between the output ports (and that 50W power rating looks interesting).

The frequency range on the label says 175-350MHz, so maybe the "-4" indicates an option.

Well, all that gives me something to go on. Next stop will be to sweep it in the various connection modes, to see what loss and isolation it really does have... and of course how well it performs at 144MHz and 432MHz.

Once again, thank you all very much!

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

3727. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-19 13:26:54 UTC
From: Dave VanHorn <dvanhorn@cedar.net>
Message-ID: <tMidndiGb8QEaQDcRVn-qg@comcast.com>
Source record: 22011
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

>> >Huh? It's only 5:30AM here and I just got up but, the ONLY time you
>> >aren't consuming power is at the zero crossing of the voltage and
>> >current sine waves (assuming a purely resistive load where I and E are
>> >in phase). Since you are paying for power, which is P=I X E, during the
>> >negative half cycle, you have, for example, -168 Volts X -1 Amp = +168
>> >Watts...try it on a calculator...negative times a negative is positive.

P=I^2R, so which direction the current is flowing is irrelevant, as the
squaring removes any negatives, and R is always positive.

Would be interesting if you could get a true -R though! (not like a tunnel
diode, which just has a small region where increasing V decreases I, but
it's still positive)

3728. M/A COM Gunn Oscillator Info ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-19 14:16:20 UTC
From: skavanagh72nospam@yahoo.ca
Message-ID: <5249fb3f.0411190616.5c20785d@posting.google.com>
Source record: 22012

I am looking for info (frequency, power out, current) on a M/A COM Gunn Oscillator with WR42 waveguide output. The part number (barely visible) appears to be MA86819, though the middle digit in particular could be mistaken. Date code appears to be from 1977. It is mechanically tuned (only) and is marked +6.6V DC. Has anyone got any data for this one ?

73,
Steve VE3SMA

3729. Re: Looking for roller inductors

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-19 14:40:14 UTC
From: ON5MJ <my_call_sign@skynet.be>
Message-ID: <419e04e8$0$30697$ba620e4c@news.skynet.be>
Source record: 22013

In my case I can't have a look into the tuner or handle alligator clips as the tuner must be remotable and outdoors. The shack will be soon located in the cellar and it will not be possible to pass the ladder line through the house. A coax would be rather acceptable indoors. So I am looking for a good solution for the inductors: roller inductors, tapped inductors, tapped inductors with small variable serie capacitors. Driven by servos or stepper motors. Maybe I don't need a fine tuning of the inductors because of the main variable capacitor could be enough.

73 de ON5MJ - Jacques.

3730. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-19 14:58:53 UTC
From: John Fields <jfields@austininstruments.com>
Message-ID: <jf2sp0hh88kv3uus1m97ur1clan5kbrmpp@4ax.com>
Source record: 22014
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Fri, 19 Nov 2004 08:26:54 -0500, "Dave VanHorn"
<dvanhorn@cedar.net> wrote:

>
>>> >Huh? It's only 5:30AM here and I just got up but, the ONLY time you
>>> >aren't consuming power is at the zero crossing of the voltage and
>>> >current sine waves (assuming a purely resistive load where I and E are
>>> >in phase). Since you are paying for power, which is P=I X E, during the
>>> >negative half cycle, you have, for example, -168 Volts X -1 Amp = +168
>>> >Watts...try it on a calculator...negative times a negative is positive.
>
>P=I^2R, so which direction the current is flowing is irrelevant, as the
>squaring removes any negatives, and R is always positive.
>
>Would be interesting if you could get a true -R though! (not like a tunnel
>diode, which just has a small region where increasing V decreases I, but
>it's still positive)

Overunity?!

--
John Fields

3731. Re: FT-8000R

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-19 18:03:17 UTC
From: "Dana H. Myers" <dana.myers@gmail.com>
Message-ID: <NLudndMEIvxEqAPcRVn-sg@comcast.com>
Source record: 22015

J. Valdes wrote:
> Looking for a schematic and parts placement diagram for the control head.
> The 440 volume & squelch pots have broken the traces on the main board
> at the connector. Can anyone help?? Please respond direct.

It's a well-known problem. The slotted rings that hold
the controls to the front of the radio loosen up over
time and pushing on the knobs flexes the pots until they
break loose.

I believe later production has a glop of hot-melt
glue on each pot to mechanically stabilize it with
the PCB.

I don't have a schematic but I can't help but think
the control head is toast based on my experience with
one FT-8100R.

Dana

3732. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-19 19:53:46 UTC
From: Marco <marco.m3van@btopenworld.com>
Message-ID: <cnlj09$i9l$1@titan.btinternet.com>
Source record: 22016
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

"Walt Davidson" <g3nyy@despammed.com> wrote in message
news:i48fp058n0d7u6re16m29fie5resnqvt5f@4ax.com...
> On Sun, 14 Nov 2004 18:07:50 +0000 (UTC), "Marco"
> <marco.m3van@btopenworld.com> wrote:
>
>>Like I said, a few morons who think the world owes them.
>>Read your history books and be glad you are still about to do so
>
> Hi Marco!
>
> They're not all bad. Take a look here:
>
> http://www.sorryeverybody.com/gallery/1/
>
> :-)))
>
> --
> Walt Davidson Email: g3nyy @despammed.com

I like that one Walt... Wonder if we can expect to see House of Lords doing one over
hunting?
Marco

Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.798 / Virus Database: 542 - Release Date: 18/11/2004

3733. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-19 20:39:03 UTC
From: troglodite@aol.com
Message-ID: <20041119153903.11818.00000879@mb-m16.aol.com>
Source record: 22017

>
>Would be interesting if you could get a true -R though!

I spent years perfecting a bar magnet with only a North pole. (Monopolar) I set it down on a table for a moment and it promptly took off for Antarctica. I haven't seen it since.

I've been making them with only South poles for the last year, but have them all tied down. I'm going to release them on December 24 and give Santa a big surprise.

3734. RF Power Measurement at 900MHZ

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-19 21:34:26 UTC
From: ed_vogel@my-deja.com
Message-ID: <90c699a1.0411191334.19449d6b@posting.google.com>
Source record: 22019

Hi,
I have 20 900MHZ ISM band modules and I would like to measure RF power. I have a a Tektronix 2712 Spectrum Analyzer and some attenuators(BNC) and RG 58 coax. Unfortunately I do not have an SMA connection on the antenna port. there are pads for the antenna that I could fit an SMA to but I none of the ones I can find fit quite right because of physical interference with the RF shield.

I tried soldering the RG 58 coax to the signal and ground pads but the signal was not visible at the spectrum analyzer. I know RG 58 is lossy but the Belden Coax calculator said I should lose about 20% of the power at 1 mwatt.

Any thoughts or suggestions regarding coupling this signal (100 to 500mW) to a power measurement would be greatly appreciated.

Thanks,
Ed V.

3735. Practical Electronics Magazine collection for sale on ebay (from Vol1 number1)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-19 22:40:14 UTC
From: Dennis Armstrong <dba@corewise.demon.co.uk>
Message-ID: <cnlsoemfg4$8302bc10@news.demon.co.uk>
Source record: 22018

Hi
I have put all my Practical Electronics magazines on ebay:-

http://cgi.ebay.co.uk/ws/eBayISAPI.dll?ViewItem&rd=1&item=6936712374&ssPageName=STRK:MESE:IT

from Volume 1 Issue number 1 its alltogether 157 issues of the magazine.

regards
Dennis

3736. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-20 00:49:52 UTC
From: Rich Grise <rich@example.net>
Message-ID: <pan.2004.11.19.23.59.41.882586@example.net>
Source record: 22020
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Fri, 19 Nov 2004 08:26:54 -0500, Dave VanHorn wrote:

>
>>> >Huh? It's only 5:30AM here and I just got up but, the ONLY time you
>>> >aren't consuming power is at the zero crossing of the voltage and
>>> >current sine waves (assuming a purely resistive load where I and E are
>>> >in phase). Since you are paying for power, which is P=I X E, during the
>>> >negative half cycle, you have, for example, -168 Volts X -1 Amp = +168
>>> >Watts...try it on a calculator...negative times a negative is positive.
>
> P=I^2R, so which direction the current is flowing is irrelevant, as the
> squaring removes any negatives, and R is always positive.
>
> Would be interesting if you could get a true -R though! (not like a tunnel
> diode, which just has a small region where increasing V decreases I, but
> it's still positive)

Instead of wires, use glass tubes full of plasma. ;-)

Cheers!
Rich

3737. Re: Practical Electronics Magazine collection for sale on ebay (from Vol1 number1)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-20 03:10:56 UTC
From: Ken Scharf <wa2mzeNOTTHIS@bellsouth.net>
Message-ID: <6yynd.32860$jE2.7170@bignews4.bellsouth.net>
Source record: 22021

Dennis Armstrong wrote:
> Hi
> I have put all my Practical Electronics magazines on ebay:-
>
> http://cgi.ebay.co.uk/ws/eBayISAPI.dll?ViewItem&rd=1&item=6936712374&ssPageName=STRK:MESE:IT
>
>
> from Volume 1 Issue number 1 its alltogether 157 issues of the magazine.
>
> regards
> Dennis
For those of us on the western side of the pond can
you describe these magazines. Looks like a UK version
of Popular Electronics, perhaps with more of a computer
slant. Wonder if any of the projects would be of
interest (parts available?) to us yanks.
Any ideas of shipment cost this way?
Thanks!

3738. Can I build a radio from old doughnuts ? ? ? ? ? ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-20 03:29:11 UTC
From: mallet_riveter@yahoo.co.in
Message-ID: <e1cc8b8.0411191929.70aa9156@posting.google.com>
Source record: 22022
Cross-posted to: rec.radio.amateur.homebrew,can.sun-stroke

I heard this is possible.Is that true?

3739. Transistor needed 2N591

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-20 14:36:24 UTC
From: Al Last <al.last@sbcglobal.net>
Message-ID: <kflup0lh2vvrsud31gh4uc54ghca4lncf6@4ax.com>
Source record: 22023

Please email me direct if you have any for sale.

Thanks, Al W6GSQ

al.last@sbcglobal.net

3740. Re: Can I build a radio from old doughnuts ? ? ? ? ? ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-20 14:52:36 UTC
From: et472@FreeNet.Carleton.CA
Message-ID: <cnnlnkqmc1@theodyn.ncf.ca>
Source record: 22024

Hans-Marc Olsen (mallet_riveter@yahoo.co.in) writes:
> I heard this is possible.Is that true?

This guys a troll, in case people haven't noticed his similar
junk posts in other newsgroups.

Michael VE2BVW

3741. Re: Can I build a radio from old doughnuts ? ? ? ? ? ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-20 15:00:49 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <3094mkF2sqdveU1@uni-berlin.de>
Source record: 22025

Perhaps he is referring to the ferrite doughnuts - toroids -
that are used in tuned circuits to restrain the magnetic field
to the environs of the toroid?

"Michael Black" <et472@FreeNet.Carleton.CA> wrote in message
news:cnnlnkqmc1@theodyn.ncf.ca...
> Hans-Marc Olsen (mallet_riveter@yahoo.co.in) writes:
> > I heard this is possible.Is that true?
> This guys a troll, in case people haven't noticed his similar
> junk posts in other newsgroups.

3742. Re: Looking for roller inductors

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-20 17:25:07 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10puvfditeh59ab@corp.supernews.com>
Source record: 22026

Airy R. Bean wrote:

> .....and now I understand your approach to DSP
>
> "Tim Wescott" <tim@wescottnospamdesign.com> wrote in message
> news:10pr0h8lvblu641@corp.supernews.com...
>
>>My first antenna tuner, which I used for several months, was just an
>>L-network with a tapped coil (with an alligator clip) and a variable
>>cap. By reversing the direction of the thing and dinking around it
>>always worked for me -- and since it was on an open piece of aluminum I
>>could hear, smell and see when I was putting too much RF into it for the
>>little broadcast tuning cap!
>
>
>
Why thank you. That's very nice.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

3743. Re: Looking for roller inductors

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-20 18:06:20 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <309fiaF2uih7aU1@uni-berlin.de>
Source record: 22027

I can assure you that it is not. However, if it makes you feel
better then please deceive yourself on that matter as you undoubtedly
do upon the religious beliefs of DSP.

"Tim Wescott" <tim@wescottnospamdesign.com> wrote in message
news:10puvfditeh59ab@corp.supernews.com...
> Airy R. Bean wrote:
> > .....and now I understand your approach to DSP
> > "Tim Wescott" <tim@wescottnospamdesign.com> wrote in message
> > news:10pr0h8lvblu641@corp.supernews.com...
> >>My first antenna tuner, which I used for several months, was just an
> >>L-network with a tapped coil (with an alligator clip) and a variable
> >>cap. By reversing the direction of the thing and dinking around it
> >>always worked for me -- and since it was on an open piece of aluminum I
> >>could hear, smell and see when I was putting too much RF into it for the
> >>little broadcast tuning cap!
> Why thank you. That's very nice.

3744. Re: Looking for roller inductors

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-20 19:39:45 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10pv7bs11d65855@corp.supernews.com>
Source record: 22028

Airy R. Bean wrote:

> I can assure you that it is not. However, if it makes you feel
> better then please deceive yourself on that matter as you undoubtedly
> do upon the religious beliefs of DSP.
>
I will! Particularly since when _I_ build a system with DSP it
generally works exactly as I've predicted it will. If I'm deceived,
then so is God -- are you saying that God is deceived by how DSP works?

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

3745. Re: Can I build a radio from old doughnuts ? ? ? ? ? ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-20 20:19:52 UTC
From: Ken Scharf <wa2mzeNOTTHIS@bellsouth.net>
Message-ID: <KBNnd.7220$fY.2790@bignews3.bellsouth.net>
Source record: 22029

Airy R. Bean wrote:
> Perhaps he is referring to the ferrite doughnuts - toroids -
> that are used in tuned circuits to restrain the magnetic field
> to the environs of the toroid?
>
> "Michael Black" <et472@FreeNet.Carleton.CA> wrote in message
> news:cnnlnkqmc1@theodyn.ncf.ca...
>
>>Hans-Marc Olsen (mallet_riveter@yahoo.co.in) writes:
>>
>>>I heard this is possible.Is that true?
>>
>>This guys a troll, in case people haven't noticed his similar
>>junk posts in other newsgroups.
>
>
>
Winding toriod coils around a doughnut is about on par
with what one Heathkit builder did when he ran out
of insulating spaggati tubing....he used macroni!
(TRUE STORY as told by some Heathkit repair center employees)

3746. Re: Can I build a radio from old doughnuts ? ? ? ? ? ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-20 20:47:25 UTC
From: et472@FreeNet.Carleton.CA
Message-ID: <cnoagt$3rb$1@theodyn.ncf.ca>
Source record: 22030

"Airy R. Bean" (me@privacy.net) writes:
> Perhaps he is referring to the ferrite doughnuts - toroids -
> that are used in tuned circuits to restrain the magnetic field
> to the environs of the toroid?
>
No, the same guy has posted to all kinds of newsgroups, and they
are indeed nonsense posts, albeit with a slight slant towards
the newsgroup. But the giveaway, apart from recognizing the name
after a few times, is that they are all posted to the newsgroup and
can.sun-stroke

People are saying he is trying to score points, and the "points" accumulate
when people reply to the message, and it lands in can.sun-stroke Note
that I took that other newsgroup out, so he will never see it over there.

Michael VE2BVW

> "Michael Black" <et472@FreeNet.Carleton.CA> wrote in message
> news:cnnlnkqmc1@theodyn.ncf.ca...
>> Hans-Marc Olsen (mallet_riveter@yahoo.co.in) writes:
>> > I heard this is possible.Is that true?
>> This guys a troll, in case people haven't noticed his similar
>> junk posts in other newsgroups.
>
>

3747. Magnet Wire Stripper Gel Substitute?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-21 00:26:14 UTC
From: averyfineman@aol.com
Message-ID: <20041120192614.06260.00000109@mb-m26.aol.com>
Source record: 22031

Many years ago GC Electronics of Rockford, Illinois, supplied a fast-acting enamel stripping gel under the trade name of "Strip-X." It would "lift" the enamel within a minute or two, was rather pungent and no doubt (in today's ultra-health-conscious world) toxic.

When my last bottle ran dry, I got some paint stripper from a neighbor that worked nearly as well. Alax, neighbor moved away and I never recorded the name of the commercial paint stripper.

Anyone have any suggestions for a chemical stripper gel or solution? Will PCB "stripper" gel work on enamel-covered magnet wire? [expensive stuff for a tiny bottle of that]

Mechanical means of enamel stripping are the pits and I can't justify the cost of a commercial stripper machine such as the Eraser. Solution solutions welcomed.

LenAnderson@ieee.org

3748. Re: Magnet Wire Stripper Gel Substitute?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-21 02:57:49 UTC
From: Scott <acepilot@bloomer.net>
Message-ID: <K_qdnVcIL7e3nj3cRVn-qw@bright.net>
Source record: 22032

Stripping magnet wire? You mean like after making coils and wanting to
solder them to something? Why bother? Just put a blob of solder on
your iron's tip and put the end of the magnet wire into the solder blob.
After several seconds, the insulation will melt off and the wire end
will be tinned with solder and ready for install!

Scott
N0EDV

Avery Fineman wrote:
> Many years ago GC Electronics of Rockford, Illinois, supplied a fast-
> acting enamel stripping gel under the trade name of "Strip-X." It
> would "lift" the enamel within a minute or two, was rather pungent
> and no doubt (in today's ultra-health-conscious world) toxic.
>
> When my last bottle ran dry, I got some paint stripper from a
> neighbor that worked nearly as well. Alax, neighbor moved away
> and I never recorded the name of the commercial paint stripper.
>
> Anyone have any suggestions for a chemical stripper gel or
> solution? Will PCB "stripper" gel work on enamel-covered
> magnet wire? [expensive stuff for a tiny bottle of that]
>
> Mechanical means of enamel stripping are the pits and I can't
> justify the cost of a commercial stripper machine such as the
> Eraser. Solution solutions welcomed.
>
> LenAnderson@ieee.org

3749. Re: Magnet Wire Stripper Gel Substitute?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-21 03:10:18 UTC
From: Dale Parfitt <par@parelectronics.com>
Message-ID: <uGTnd.3045$0k1.571@trnddc08>
Source record: 22033

"Scott" <acepilot@bloomer.net> wrote in message
news:K_qdnVcIL7e3nj3cRVn-qw@bright.net...
> Stripping magnet wire? You mean like after making coils and wanting to
> solder them to something? Why bother? Just put a blob of solder on
> your iron's tip and put the end of the magnet wire into the solder blob.
> After several seconds, the insulation will melt off and the wire end
> will be tinned with solder and ready for install!
>
> Scott
> N0EDV
>
>This is only true for some types- like Belden Soldereze. Many others will
not be touched by heat- formvar for example.

Dale W4OP

3750. Re: Magnet Wire Stripper Gel Substitute?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-21 03:42:45 UTC
From: Ken Scharf <wa2mzeNOTTHIS@bellsouth.net>
Message-ID: <J3Und.89453$Tq1.65425@bignews1.bellsouth.net>
Source record: 22034

Dale Parfitt wrote:
> "Scott" <acepilot@bloomer.net> wrote in message
> news:K_qdnVcIL7e3nj3cRVn-qw@bright.net...
>
>>Stripping magnet wire? You mean like after making coils and wanting to
>>solder them to something? Why bother? Just put a blob of solder on
>>your iron's tip and put the end of the magnet wire into the solder blob.
>> After several seconds, the insulation will melt off and the wire end
>>will be tinned with solder and ready for install!
>>
>>Scott
>>N0EDV
>>
>>This is only true for some types- like Belden Soldereze. Many others will
>
> not be touched by heat- formvar for example.
>
> Dale W4OP
>
>
I usually just take a piece of 120-400 grit sandpaper, fold it in half
and pull the wire through it. Several passes usually is enough.

3751. Re: Magnet Wire Stripper Gel Substitute?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-21 03:44:41 UTC
From: Scott <acepilot@bloomer.net>
Message-ID: <DtOdnVO6bci7kz3cRVn-tQ@bright.net>
Source record: 22035

Ha! I learn something new everyday! I use the "cheap" stuff from
places like Mouser Electronics. Not sure what kind it is, but (so far)
haven't had trouble melting it.

Scott
N0EDV

Dale Parfitt wrote:
> "Scott" <acepilot@bloomer.net> wrote in message
> news:K_qdnVcIL7e3nj3cRVn-qw@bright.net...
>
>>Stripping magnet wire? You mean like after making coils and wanting to
>>solder them to something? Why bother? Just put a blob of solder on
>>your iron's tip and put the end of the magnet wire into the solder blob.
>> After several seconds, the insulation will melt off and the wire end
>>will be tinned with solder and ready for install!
>>
>>Scott
>>N0EDV
>>
>>This is only true for some types- like Belden Soldereze. Many others will
>
> not be touched by heat- formvar for example.
>
> Dale W4OP
>
>

3752. Re: RF Power Measurement at 900MHZ

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-21 04:33:22 UTC
From: Andrey <a8421@intergate.bc.ca>
Message-ID: <10q06865kju152c@corp.supernews.com>
Source record: 22036

Interesting...

What exactly do you want to measure? Power output from the Module? Or power received by the module?

In an case, here are some check-ups you may find useful.

1. Check if your SpectrumAnalyzer "sees" 900 MHz signals. Take 75mm of bare wire, attach it to the input of Spectrum Analizer - to central connector. Orient the wire vertically. This will be your quarter-wave length antenna. You should see activity in the band - signals, on different channels, of different modulations.

I do not know where you are located, but if it is urban environment there should be some activity on 900MHz ISM Band, and below the band you will see cellular activity etc.

You will see signals with amplitude -40 to -80 dBm.

2. If you want to check if your modules transmit, bring it close to antenna - you will not need even antenna on your modules to see the signal from them. Again, I do not know what is your output power, but if it +10 - +20 dBm, you will see plenty of signal when the module is close to your antenna.

3. Have in mind, simply powering up the module typically does not make it transmit. There is usually separate line that turns Tx 'on' and more.

I hope this helps,

Andrey

"Ed Vogel" <ed_vogel@my-deja.com> wrote in message
news:90c699a1.0411191334.19449d6b@posting.google.com...
> Hi,
> I have 20 900MHZ ISM band modules and I would like to measure RF
> power. I have a a Tektronix 2712 Spectrum Analyzer and some
> attenuators(BNC) and RG 58 coax. Unfortunately I do not have an SMA
> connection on the antenna port. there are pads for the antenna that I
> could fit an SMA to but I none of the ones I can find fit quite right
> because of physical interference with the RF shield.
>
> I tried soldering the RG 58 coax to the signal and ground pads but the
> signal was not visible at the spectrum analyzer. I know RG 58 is lossy
> but the Belden Coax calculator said I should lose about 20% of the
> power at 1 mwatt.
>

> Any thoughts or suggestions regarding coupling this signal (100 to
> 500mW) to a power measurement would be greatly appreciated.
>
> Thanks,
> Ed V.

3753. Re: Looking for roller inductors

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-21 09:58:39 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <30b7bvF2tp30kU1@uni-berlin.de>
Source record: 22037

Who is God?

"Generally" works "exactly"? You seem to be somewhat confused.

"Tim Wescott" <tim@wescottnospamdesign.com> wrote in message
news:10pv7bs11d65855@corp.supernews.com...
> Airy R. Bean wrote:
> > I can assure you that it is not. However, if it makes you feel
> > better then please deceive yourself on that matter as you undoubtedly
> > do upon the religious beliefs of DSP.
> I will! Particularly since when _I_ build a system with DSP it
> generally works exactly as I've predicted it will. If I'm deceived,
> then so is God -- are you saying that God is deceived by how DSP works?

3754. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-21 16:53:25 UTC
From: Terry <tsanford@nf.sympatico.ca>
Message-ID: <PH3od.10061$Le1.81555@news20.bellglobal.com>
Source record: 22038
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

Was anybody keeping count of the number of postings to this thread BEFORE it became personal and acrimonious?
Seems like some posters lack the necessary sense of humour? They seem to hate anythingthey say be challenged?
Then, as a reaction they descend in childish name calling and attempts at derision. Shame!

Sticking to the subject. "Why electricity (for our antique radios of course) is/is not free". Well, hmm! The tube heaters use full wave, but what about those pulses of one way rectified half wave AC for the B+? (Primarily in non transformer radios!). Intended pun; non power transformer radios don't have a primary! :-)

Personally I'd like to 'rectify'? my high electricity cost!
Our consumption is recorded by a 60 cycle analog AC meter on the outside of my house, which is owned by the power company and read and billed monthly. Maybe I could get those positive half cycles and then not 'return' the negative ones, as someone has already suggested, and reduce electricity consumption that way? Joking of course :-) What good would half cycles be to respectable AC operated equipment?

So anybody got any other 'practical' ideas, in addition to burning my non electric wood stove during the winter, to reducing my electrical heating cost?

Our domestic electricity presently costs about 9 cents Canadian per kilowatt hour. That's roughly 7 cents US and roughly 4 UK New Pence, per unit/kilowatt hour. This part of Canada is a pretty small and somewhat widespread market. I believe that in Ontario in central Canada, a much larger population and population density, it is, or has been, due to political pressure following a botched attempt to privatize the electrical system? substantially less than that at around 5 cents; even though much of the energy is generated, by hydro power, in Labrador in this particular part of Canada!

Thinking about it.

3755. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-21 18:15:39 UTC
From: Kevin Aylward <salesEXTRACT@anasoft.co.uk>
Message-ID: <fX4od.17515$08.16777@fe2.news.blueyonder.co.uk>
Source record: 22039
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

Terry wrote:
> Was anybody keeping count of the number of postings to this thread
> BEFORE it became personal and acrimonious?
> Seems like some posters lack the necessary sense of humour? They seem
> to hate anythingthey say be challenged?
> Then, as a reaction they descend in childish name calling and
> attempts at derision. Shame!
>
> Sticking to the subject. "Why electricity (for our antique radios of
> course) is/is not free". Well, hmm! The tube heaters use full wave,
> but what about those pulses of one way rectified half wave AC for the
> B+? (Primarily in non transformer radios!). Intended pun; non power
> transformer radios don't have a primary! :-)
>
> Personally I'd like to 'rectify'? my high electricity cost!
> Our consumption is recorded by a 60 cycle analog AC meter on the
> outside of my house, which is owned by the power company and read and
> billed monthly. Maybe I could get those positive half cycles and then
> not 'return' the negative ones, as someone has already suggested, and
> reduce electricity consumption that way? Joking of course :-) What
> good would half cycles be to respectable AC operated equipment?
>
> So anybody got any other 'practical' ideas, in addition to burning my
> non electric wood stove during the winter, to reducing my electrical
> heating cost?
>
> Our domestic electricity presently costs about 9 cents Canadian per
> kilowatt hour. That's roughly 7 cents US and roughly 4 UK New Pence,
> per unit/kilowatt hour.

Which means running ones 1MW anti-gravity machine only costs a trivial
$70 per hour. Cheap at twice the price.

Kevin Aylward
salesEXTRACT@anasoft.co.uk
http://www.anasoft.co.uk
SuperSpice, a very affordable Mixed-Mode
Windows Simulator with Schematic Capture,
Waveform Display, FFT's and Filter Design.

3756. Re: Magnet Wire Stripper Gel Substitute?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-21 18:48:22 UTC
From: John Walton <jdwalton@comcast.net>
Message-ID: <Pe6dneVkiLBcfD3cRVn-oQ@comcast.com>
Source record: 22040

Try "Zip Strip" -- methylene chloride -- use gloves.

"Avery Fineman" <averyfineman@aol.com> wrote in message
news:20041120192614.06260.00000109@mb-m26.aol.com...
> Many years ago GC Electronics of Rockford, Illinois, supplied a fast-
> acting enamel stripping gel under the trade name of "Strip-X." It
> would "lift" the enamel within a minute or two, was rather pungent
> and no doubt (in today's ultra-health-conscious world) toxic.
>
> When my last bottle ran dry, I got some paint stripper from a
> neighbor that worked nearly as well. Alax, neighbor moved away
> and I never recorded the name of the commercial paint stripper.
>
> Anyone have any suggestions for a chemical stripper gel or
> solution? Will PCB "stripper" gel work on enamel-covered
> magnet wire? [expensive stuff for a tiny bottle of that]
>
> Mechanical means of enamel stripping are the pits and I can't
> justify the cost of a commercial stripper machine such as the
> Eraser. Solution solutions welcomed.
>
> LenAnderson@ieee.org

3757. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-21 20:42:41 UTC
From: Terry <tsanford@nf.sympatico.ca>
Message-ID: <M27od.4558$Ro.211768@news20.bellglobal.com>
Source record: 22041
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

"Jim L." <jfladd@flash.net> wrote in message
news:AFTmd.19330$8%2.3421@newssvr15.news.prodigy.com...
> Hi- If you are not using any "electricity" then turn off your main circuit
> breaker. You should not notice any difference. Jim

Still wondering if there is a way to 'rectify' this thread misunderstanding?

3758. Re: Magnet Wire Stripper Gel Substitute?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-21 21:42:08 UTC
From: boB <boB>
Message-ID: <qm22q0dnrtbnr5s1vpk4o0u1vc63gjkv92@4ax.com>
Source record: 22042

There's also the Abisofix stripper. Not really cheap either, but
works well if you need to strip a log of magnet wire.

http://www.abisofix.de/English/Abisofix/abisofix.html

boB

On Sun, 21 Nov 2004 13:48:22 -0500, "John Walton"
<jdwalton@comcast.net> wrote:

>Try "Zip Strip" -- methylene chloride -- use gloves.
>
>"Avery Fineman" <averyfineman@aol.com> wrote in message
>news:20041120192614.06260.00000109@mb-m26.aol.com...
>> Many years ago GC Electronics of Rockford, Illinois, supplied a fast-
>> acting enamel stripping gel under the trade name of "Strip-X." It
>> would "lift" the enamel within a minute or two, was rather pungent
>> and no doubt (in today's ultra-health-conscious world) toxic.
>>
>> When my last bottle ran dry, I got some paint stripper from a
>> neighbor that worked nearly as well. Alax, neighbor moved away
>> and I never recorded the name of the commercial paint stripper.
>>
>> Anyone have any suggestions for a chemical stripper gel or
>> solution? Will PCB "stripper" gel work on enamel-covered
>> magnet wire? [expensive stuff for a tiny bottle of that]
>>
>> Mechanical means of enamel stripping are the pits and I can't
>> justify the cost of a commercial stripper machine such as the
>> Eraser. Solution solutions welcomed.
>>
>> LenAnderson@ieee.org
>

3759. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-21 22:48:19 UTC
From: Ken Taylor <ken123@xtra.co.nz>
Message-ID: <30ck9lF2tqq3iU1@uni-berlin.de>
Source record: 22043
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

"Terry" <tsanford@nf.sympatico.ca> wrote in message
news:M27od.4558$Ro.211768@news20.bellglobal.com...
>
> "Jim L." <jfladd@flash.net> wrote in message
> news:AFTmd.19330$8%2.3421@newssvr15.news.prodigy.com...
> > Hi- If you are not using any "electricity" then turn off your main
circuit
> > breaker. You should not notice any difference. Jim
>
>
> Still wondering if there is a way to 'rectify' this thread
misunderstanding?
>
>
I've got bucket loads of half-waves I rectified and don't need if anyone
wants to make an offer.....

3760. Re: WTD: HW-100 Manual

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-21 23:28:10 UTC
From: fmmck@aol.communicate
Message-ID: <20041121182810.11861.00000871@mb-m16.aol.com>
Source record: 22044

<< I am in need of a manual for a Heath HW-100. >>

Charlie-

In case you are still looking, you might expand your search to include the HW-101, SB-100, SB-101 and SB-102.

The main difference between these models is the VFO module. I think each is unique. If you need information about the rest of the radio, there is very little difference. For example, one might use dial cord to couple shafts that rotate together, while another might use an O-Ring as a belt.

73, Fred, K4DII

3761. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-22 00:33:06 UTC
From: John Fields <jfields@austininstruments.com>
Message-ID: <nsc2q0d89boei265ci1nng31iks6nbbc5u@4ax.com>
Source record: 22045
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Mon, 22 Nov 2004 11:48:19 +1300, "Ken Taylor" <ken123@xtra.co.nz>
wrote:

>"Terry" <tsanford@nf.sympatico.ca> wrote in message
>news:M27od.4558$Ro.211768@news20.bellglobal.com...
>>
>> "Jim L." <jfladd@flash.net> wrote in message
>> news:AFTmd.19330$8%2.3421@newssvr15.news.prodigy.com...
>> > Hi- If you are not using any "electricity" then turn off your main
>circuit
>> > breaker. You should not notice any difference. Jim
>>
>>
>> Still wondering if there is a way to 'rectify' this thread
>misunderstanding?
>>
>>
>I've got bucket loads of half-waves I rectified and don't need if anyone
>wants to make an offer.....

Positive or negative-going?

--
John Fields

3762. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-22 01:40:14 UTC
From: Ken Taylor <ken123@xtra.co.nz>
Message-ID: <30cuc0F2u350sU1@uni-berlin.de>
Source record: 22046
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

"John Fields" <jfields@austininstruments.com> wrote in message
news:nsc2q0d89boei265ci1nng31iks6nbbc5u@4ax.com...
> On Mon, 22 Nov 2004 11:48:19 +1300, "Ken Taylor" <ken123@xtra.co.nz>
> wrote:
>
> >"Terry" <tsanford@nf.sympatico.ca> wrote in message
> >news:M27od.4558$Ro.211768@news20.bellglobal.com...
> >>
> >> "Jim L." <jfladd@flash.net> wrote in message
> >> news:AFTmd.19330$8%2.3421@newssvr15.news.prodigy.com...
> >> > Hi- If you are not using any "electricity" then turn off your main
> >circuit
> >> > breaker. You should not notice any difference. Jim
> >>
> >>
> >> Still wondering if there is a way to 'rectify' this thread
> >misunderstanding?
> >>
> >>
> >I've got bucket loads of half-waves I rectified and don't need if anyone
> >wants to make an offer.....
>
> ---
> Positive or negative-going?
>
> --
> John Fields

Sorry, I don't sort them - they're a job lot.

Ken

3763. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-22 04:19:45 UTC
From: Jim Adney <jadney@vwtype3.org>
Message-ID: <0lp2q0dp1c86imi0ghcdok1v23s1r5kkic@4ax.com>
Source record: 22047
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Fri, 12 Nov 2004 13:42:19 +0000 Paul Burridge
<pb@notthisbit.osiris1.co.uk> wrote:

>The power company run a line to my house. They supply me with
>electricity. This amounts to a 230V, 65A facility at the distribution
>board in a cupboard under the stairs. I run all my stuff from that
>board. The board contains several RCBOs that trip-out in the event of
>any leakage current being sensed. If current in = current out; they're
>happy and won't trip. Because they don't trip out, I conclude I don't
>use any current.
>The voltage supplied is 230VAC RMS. Since this is alternating between
>equal positive and negative half-cycles, the average level of this
>voltage supply is zero.
>I use no current and they effectively supply no voltage. Why do I get
>billed for electricity usage when I clearly can't have used any?

I've been watching this thread for a couple of days, and I gotta
believe it's just a troll. But while we're at it, why not ask the same
question about your water bill.

After all, they're just charging you for water, most of which just
gets returned, with "interest."

;-)

-

Jim Adney jadney@vwtype3.org
Madison, WI 53711 USA

3764. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-22 07:23:12 UTC
From: Rich Grise <rich@example.net>
Message-ID: <pan.2004.11.22.06.33.03.842598@example.net>
Source record: 21948
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Sun, 21 Nov 2004 18:15:39 +0000, Kevin Aylward wrote:

> Terry wrote:
>> Was anybody keeping count of the number of postings to this thread
>> BEFORE it became personal and acrimonious?
>> Seems like some posters lack the necessary sense of humour? They seem
>> to hate anythingthey say be challenged?
>> Then, as a reaction they descend in childish name calling and
>> attempts at derision. Shame!
>>
>> Sticking to the subject. "Why electricity (for our antique radios of
>> course) is/is not free". Well, hmm! The tube heaters use full wave,
>> but what about those pulses of one way rectified half wave AC for the
>> B+? (Primarily in non transformer radios!). Intended pun; non power
>> transformer radios don't have a primary! :-)
>>
>> Personally I'd like to 'rectify'? my high electricity cost!
>> Our consumption is recorded by a 60 cycle analog AC meter on the
>> outside of my house, which is owned by the power company and read and
>> billed monthly. Maybe I could get those positive half cycles and then
>> not 'return' the negative ones, as someone has already suggested, and
>> reduce electricity consumption that way? Joking of course :-) What
>> good would half cycles be to respectable AC operated equipment?
>>
>> So anybody got any other 'practical' ideas, in addition to burning my
>> non electric wood stove during the winter, to reducing my electrical
>> heating cost?
>>
>> Our domestic electricity presently costs about 9 cents Canadian per
>> kilowatt hour. That's roughly 7 cents US and roughly 4 UK New Pence,
>> per unit/kilowatt hour.
>
> Which means running ones 1MW anti-gravity machine only costs a trivial
> $70 per hour. Cheap at twice the price.
>
I don't know where you buy your antigravity machines, but that's way out
of line. Whadday lifting, the Great Pyramids?

;-)
Rich

3765. New Kennedy assassination audio!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-22 09:52:47 UTC
From: brad.johnson@turner.com
Message-ID: <af57b211.0411220152.3b5f7e35@posting.google.com>
Source record: 21949

I am looking for TV and radio broadcasts of the JFK and RFK assassinations. I am particularly interested in audio recordings of such broadcasts made by amateurs.

If you personally tape-recorded or obtained -- or know of anyone else who tape-recorded or obtained -- any television or radio broadcasts concerning one or both of the two Kennedy assassinations in 1963 and 1968, please contact me.

Whether it's a network or local broadcast, whether the sound recording of that broadcast is of good quality or poor quality, whether it was recorded in a major market or in a minor market, I want to know about it.

I'm a collector, so if you have any of this or know about someone else who does... please email me or have them email me at:

bkj333@aol.com

Thanks!

3766. DIY - Anyone built one of these - KIT : Deluxe Receiver HF Multicontroller (Multicoupler) Kit

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-22 10:26:33 UTC
From: rhf-newsgroups@pacbell.net
Message-ID: <ff3145e8.0411220226.33eddc63@posting.google.com>
Source record: 21950
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

Do-It-Yourself (DIY) Project ?

Q#1 - Has anyone "Built" one of these Kits ?

KIT : Deluxe Receiver HF Multicontroller (Multicoupler) Kit by W8ZR

eBAY=> http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=5732753994
http://www.miami.muohio.edu/president/personal/w8zr/multicontroller/index.htm
KIT=> http://www.w8zr.net/multicontroller/

About "W8ZR" => http://www.w8zr.net/

Q#2 - How does the "Assembly" of the Kit go ?

Q#3 - Does the "Finished" Kit perform well enough so that it is
'worth' the Money and Time to built it ?

Q#4 - Are there 'cheaper' Lower Cost Ready-Made alternatives
to this "Kit" ?

iwtk ~ RHF
.
.

3767. Re: DIY - Anyone built one of these - KIT : Deluxe Receiver HF Multicontroller (Multicoupler) Kit

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-22 12:44:24 UTC
From: "Mark S. Holden" <mark@bmas.org>
Message-ID: <ONadnYsKd5KuQjzcRVn-3g@adelphia.com>
Source record: 21951
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

RHF wrote:

> Do-It-Yourself (DIY) Project ?
>
> Q#1 - Has anyone "Built" one of these Kits ?
>
> KIT : Deluxe Receiver HF Multicontroller (Multicoupler) Kit by W8ZR
>
> eBAY=> http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=5732753994
> http://www.miami.muohio.edu/president/personal/w8zr/multicontroller/index.htm
> KIT=> http://www.w8zr.net/multicontroller/
>
> About "W8ZR" => http://www.w8zr.net/
>
> Q#2 - How does the "Assembly" of the Kit go ?
>
> Q#3 - Does the "Finished" Kit perform well enough so that it is
> 'worth' the Money and Time to built it ?
>
> Q#4 - Are there 'cheaper' Lower Cost Ready-Made alternatives
> to this "Kit" ?
>
>
> iwtk ~ RHF
> .
> .

w8zr is a member of premium-rx and IIRC the project was mentioned in a favorable light by Greg (The list owner) shortly before the article was published.

There is a discussion group on the w8zr site where quite a few people have left comments and questions resulting from building and using the multicoupler.

<http://unixgen.muohio.edu/~garlanjc/multicontroller/postings.htm>

3768. Re: DIY - Deluxe Receiver HF Multicontroller (Multicoupler) Kit

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-22 15:48:19 UTC
From: w9gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <7Tnod.445874$D%.338813@attbi_s51>
Source record: 21952
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

"RHF" <rhf-newsgroups@pacbell.net> wrote in message
news:ff3145e8.0411220226.33eddc63@posting.google.com...
> Do-It-Yourself (DIY) Project ?
>
> Q#1 - Has anyone "Built" one of these Kits ?
>
> KIT : Deluxe Receiver HF Multicontroller (Multicoupler) Kit by W8ZR
>
> eBAY=> http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=5732753994
> http://www.miami.muohio.edu/president/personal/w8zr/multicontroller/index.htm
> KIT=> http://www.w8zr.net/multicontroller/
>
> About "W8ZR" => http://www.w8zr.net/
>
> Q#2 - How does the "Assembly" of the Kit go ?
>
> Q#3 - Does the "Finished" Kit perform well enough so that it is
> 'worth' the Money and Time to built it ?
>
> Q#4 - Are there 'cheaper' Lower Cost Ready-Made alternatives
> to this "Kit" ?
>
>
> iwtk ~ RHF

About 1/2 way through ... job interruptions !!
As mentioned, discussion group comments on the W8ZR web site, helpful.
... hopefully will finish mine during Christmas holidays.

Greg
w9gb

3769. Re: New Kennedy assassination audio!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-22 15:52:15 UTC
From: w9gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <OWnod.135800$R05.82669@attbi_s53>
Source record: 21953

"Brad Johnson" <brad.johnson@turner.com> wrote in message
news:af57b211.0411220152.3b5f7e35@posting.google.com...
>I am looking for TV and radio broadcasts of the JFK and RFK
> assassinations. I am particularly interested in audio recordings of
> such broadcasts made by amateurs.
>
> If you personally tape-recorded or obtained -- or know of anyone else
> who tape-recorded or obtained -- any television or radio broadcasts
> concerning one or both of the two Kennedy assassinations in 1963 and
> 1968, please contact me.
>
> Whether it's a network or local broadcast, whether the sound recording
> of that broadcast is of good quality or poor quality, whether it was
> recorded in a major market or in a minor market, I want to know about
> it.
>
> I'm a collector, so if you have any of this or know about someone else
> who does... please email me or have them email me at:
>
> bkj333@aol.com
>
> Thanks!

I did have a reel to reel of the 1968 RFK events in LA. We were testing new
audio recording equipment (late night, of course) and were letting it run
off one of the TV feeds.
Unfortunately, it was lost in 1970s.

gb

3770. Re: New Kennedy assassination audio!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-22 19:20:01 UTC
From: TBA <TBA@GOODOLEUSOFA.COM>
Message-ID: <j%qod.11264$Ae.2726@newsread1.dllstx09.us.to.verio.net>
Source record: 21954

"w9gb" <onw9mapsgb@no.arrl.spam.net> wrote in message
news:OWnod.135800$R05.82669@attbi_s53...
> "Brad Johnson" <brad.johnson@turner.com> wrote in message
> news:af57b211.0411220152.3b5f7e35@posting.google.com...
>>I am looking for TV and radio broadcasts of the JFK and RFK
>> assassinations. I am particularly interested in audio recordings of
>> such broadcasts made by amateurs.
>>
>> If you personally tape-recorded or obtained -- or know of anyone else
>> who tape-recorded or obtained -- any television or radio broadcasts
>> concerning one or both of the two Kennedy assassinations in 1963 and
>> 1968, please contact me.
>>
>> Whether it's a network or local broadcast, whether the sound recording
>> of that broadcast is of good quality or poor quality, whether it was
>> recorded in a major market or in a minor market, I want to know about
>> it.
>>
>> I'm a collector, so if you have any of this or know about someone else
>> who does... please email me or have them email me at:
>>
>> bkj333@aol.com
>>
>> Thanks!
>
> I did have a reel to reel of the 1968 RFK events in LA. We were testing
> new audio recording equipment (late night, of course) and were letting it
> run off one of the TV feeds.
> Unfortunately, it was lost in 1970s.
>
> gb
>

Often times, many news sources play at least "tidbits" of those audio files.
I'm sure a documentary will be on soon which will play many parts of those
files.

Speaking of this event, did you hear - some sick bastard(s) in the UK
created a game about this, called "Kill the President"?
And they're supposed to be our friends? YEAH RIGHT..... Those
bastards ought to be found and executed.

NO ONE and I DO MEAN - NO ONE should buy this game to support their sick
minds. ANY STORES that stock this "game" should be boycotted.

TBA

3771. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-22 19:59:29 UTC
From: Rich Grise <rich@example.net>
Message-ID: <pan.2004.11.22.19.09.26.564209@example.net>
Source record: 21955
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Sun, 21 Nov 2004 22:19:45 -0600, Jim Adney wrote:

> On Fri, 12 Nov 2004 13:42:19 +0000 Paul Burridge
> <pb@notthisbit.osiris1.co.uk> wrote:
>
>>The power company run a line to my house. They supply me with
>>electricity. This amounts to a 230V, 65A facility at the distribution
>>board in a cupboard under the stairs. I run all my stuff from that
>>board. The board contains several RCBOs that trip-out in the event of
>>any leakage current being sensed. If current in = current out; they're
>>happy and won't trip. Because they don't trip out, I conclude I don't
>>use any current.
>>The voltage supplied is 230VAC RMS. Since this is alternating between
>>equal positive and negative half-cycles, the average level of this
>>voltage supply is zero.
>>I use no current and they effectively supply no voltage. Why do I get
>>billed for electricity usage when I clearly can't have used any?
>
> I've been watching this thread for a couple of days, and I gotta
> believe it's just a troll. But while we're at it, why not ask the same
> question about your water bill.
>
> After all, they're just charging you for water, most of which just
> gets returned, with "interest."
>
> ;-)

This isn't as funny as it sounds. I was renting a room from a guy once,
and he was complaining that when he waters his lawn, they add the
gallonage (or whatever the word is) to his sewer bill, the theory
being that most of the water to a house goes out the city sewer.

I suggested rain barrels, but he didn't think that was very funny, either.

Cheers!
Rich

3772. Re: DIY - Anyone built one of these - KIT : Deluxe Receiver HF Multicontroller (Multicoupler) Kit

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-22 20:37:33 UTC
From: Brian Hill <releif@last.net>
Message-ID: <dpsod.62$qF4.54@fe11.lga>
Source record: 21956
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

Just from the looks of it. I would say it's quite a bit of equipment for the price if your willing to do the work.

--
73 and good DXing.
Brian
~~~~~~
A lot of radios and 100' of rusty wire!
Zumbrota, Southern MN
Brian's Radio Universe
http://webpages.charter.net/brianhill/

EMAIL- brianehill@$100charter.net
(Hide the $100 to reply!)
~~~~~~

3773. Re: New Kennedy assassination audio!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-22 22:28:54 UTC
From: bkj333@aol.com
Message-ID: <fc069043.0411221428.5b2b5a60@posting.google.com>
Source record: 21957

"w9gb" <onw9mapsgb@no.arrl.spam.net> wrote in message
news:<OWnod.135800$R05.82669@attbi_s53>...
> <bkj333@aol.com> wrote in message
> news:af57b211.0411220152.3b5f7e35@posting.google.com...

> I did have a reel to reel of the 1968 RFK events in LA. We were testing new
> audio recording equipment (late night, of course) and were letting it run
> off one of the TV feeds.
> Unfortunately, it was lost in 1970s.
>
> gb

Hey,

Thanks for the note.

So, like, this reel-to-reel definitely is gone forever, right? Not even the remotest chance you might possibly have it tucked away somewhere and have just forgotten where it is? (Sigh) I would dearly love to hear your reel if there's any chance in a 1,000 it might simply be misplaced somewhere.

I'm working on a very interesting project involving the RFK assassination and one of the things I'm doing is piecing together amateur and professional audio, video and film from that night (I've gathered up a good bit of material thus far and there's been some truly amazing results so far).

If you might happen to know of anybody else who has such material, I would love to get in touch.

Again, thanks so much for your note. And, just out of curiosity, do you happen to remember which TV network it was that you were taping with the reel-to-reel that night? Which local market were in at the time?

Very best wishes!

Brad

3774. Re: New Kennedy assassination audio!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-22 22:32:51 UTC
From: bkj333@aol.com
Message-ID: <fc069043.0411221432.3e4bbbb1@posting.google.com>
Source record: 21958

P.S.

W9GB,

Any chance somebody made a cassette dub off the original reel-to-reel
at some point later on?

Brad

3775. Re: New Kennedy assassination audio!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-23 00:20:24 UTC
From: w9gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <6nvod.378482$wV.265548@attbi_s54>
Source record: 21959

"BKJ" <bkj333@aol.com> wrote in message
news:fc069043.0411221428.5b2b5a60@posting.google.com...
>
> If you might happen to know of anybody else who has such material, I
> would love to get in touch.
>
> Again, thanks so much for your note. And, just out of curiosity, do
> you happen to remember which TV network it was that you were taping
> with the reel-to-reel that night? Which local market were in at the
> time?
>
> Very best wishes!
>
> Brad

I am afraid not. It was either the NBC (WGEM) or CBS (KHQA) affiliate for
the Hannibal/Quincy market (one of the smallest TV markets in the US).

gb

3776. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-23 00:27:09 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <lp05q051a5bj51uvufgumhgmlrnsv9e74t@4ax.com>
Source record: 21960
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Mon, 22 Nov 2004 19:59:29 GMT, Rich Grise <rich@example.net> wrote:

>This isn't as funny as it sounds. I was renting a room from a guy once,
>and he was complaining that when he waters his lawn, they add the
>gallonage (or whatever the word is) to his sewer bill, the theory
>being that most of the water to a house goes out the city sewer.

My wastewater charge is directly tied to my incoming water consumption
metering. I get a slight advantage, however, in that I go to the pub
every night, drink 10 pints of beer and don't need the lavatory until
I get home. :P
--

"What is now proved was once only imagin'd." - William Blake, 1793.

3777. Re: RF Power Measurement at 900MHZ

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-23 00:45:47 UTC
From: ed_vogel@my-deja.com
Message-ID: <90c699a1.0411221645.1f25afbb@posting.google.com>
Source record: 21961

Hi Andrey,
thanks for the info. It turned out that the module that was
not showing any signal on the spectrum analyzer was dead. I got
another one and soldered in a RG 58 cable and hooked it to my spectrum
analyzer through a 20dbm attenuator. Its working fine.

Ed V.

"Andrey" <a8421@intergate.bc.ca> wrote in message
news:<10q06865kju152c@corp.supernews.com>...
> Interesting...
>
> What exactly do you want to measure? Power output from the Module? Or power
> received by the module?
>
> In an case, here are some check-ups you may find useful.
>
> 1. Check if your SpectrumAnalyzer "sees" 900 MHz signals. Take 75mm of bare
> wire, attach it to the input of Spectrum Analizer - to central connector.
> Orient the wire vertically. This will be your quarter-wave length antenna.
> You should see activity in the band - signals, on different channels, of
> different modulations.
>
> I do not know where you are located, but if it is urban environment there
> should be some activity on 900MHz ISM Band, and below the band you will see
> cellular activity etc.
>
> You will see signals with amplitude -40 to -80 dBm.
>
> 2. If you want to check if your modules transmit, bring it close to
> antenna - you will not need even antenna on your modules to see the signal
> from them. Again, I do not know what is your output power, but if it +10 -
> +20 dBm, you will see plenty of signal when the module is close to your
> antenna.
>
> 3. Have in mind, simply powering up the module typically does not make it
> transmit. There is usually separate line that turns Tx 'on' and more.
>
> I hope this helps,
>
> Andrey
>
>
> "Ed Vogel" <ed_vogel@my-deja.com> wrote in message
> news:90c699a1.0411191334.19449d6b@posting.google.com...

> > Hi,
> > I have 20 900MHZ ISM band modules and I would like to measure RF
> > power. I have a a Tektronix 2712 Spectrum Analyzer and some
> > attenuators(BNC) and RG 58 coax. Unfortunately I do not have an SMA
> > connection on the antenna port. there are pads for the antenna that I
> > could fit an SMA to but I none of the ones I can find fit quite right
> > because of physical interference with the RF shield.
> >
> > I tried soldering the RG 58 coax to the signal and ground pads but the
> > signal was not visible at the spectrum analyzer. I know RG 58 is lossy
> > but the Belden Coax calculator said I should lose about 20% of the
> > power at 1 mwatt.
> >
> > Any thoughts or suggestions regarding coupling this signal (100 to
> > 500mW) to a power measurement would be greatly appreciated.
> >
> > Thanks,
> > Ed V.

3778. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-23 01:21:27 UTC
From: Rich Grise <rich@example.net>
Message-ID: <pan.2004.11.23.00.31.27.631966@example.net>
Source record: 21962
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Tue, 23 Nov 2004 00:27:09 +0000, Paul Burridge wrote:

> On Mon, 22 Nov 2004 19:59:29 GMT, Rich Grise <rich@example.net> wrote:
>
>>This isn't as funny as it sounds. I was renting a room from a guy once,
>>and he was complaining that when he waters his lawn, they add the
>>gallonage (or whatever the word is) to his sewer bill, the theory
>>being that most of the water to a house goes out the city sewer.
>
> My wastewater charge is directly tied to my incoming water consumption
> metering. I get a slight advantage, however, in that I go to the pub
> every night, drink 10 pints of beer and don't need the lavatory until
> I get home. :P

I've heard that that can also keep little critters out of your vegetables.
:-)

Cheers!
Rich

3779. Eimac Pamphlet

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-23 01:30:28 UTC
From: Bob Stein <bobXstein@sbcglobal.net>
Message-ID: <30fi5kF2upan0U1@uni-berlin.de>
Source record: 21963

I ran across a duplicate copy of "The Care and Feeding of Power
Tetrodes" (1951), mint condition. $5.00 including shipping anywhere in
lower 48.

Bob, w6nbi
--
Remove spam-suppression X from my address

3780. Re: Eimac Pamphlet

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-23 03:12:17 UTC
From: John Moriarity <k6qq@hdo.net>
Message-ID: <10q5akm54tivi57@corp.supernews.com>
Source record: 21964

Fourth try:

Bob,

If you still have it, I'll take it!

73, John - K6QQ

3781. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-23 05:27:18 UTC
From: Richard Henry <rphenry@home.com>
Message-ID: <ZSzod.76251$SW3.50375@fed1read01>
Source record: 21965
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

"Rich Grise" <rich@example.net> wrote in message
news:pan.2004.11.22.19.09.26.564209@example.net...

> This isn't as funny as it sounds. I was renting a room from a guy once,
> and he was complaining that when he waters his lawn, they add the
> gallonage (or whatever the word is) to his sewer bill, the theory
> being that most of the water to a house goes out the city sewer.

We have a similar system here (San Diego County), but they compute the
"sewer" charge by using the lowest three winter billing periods over the
last four years. I guess it is an attempt to measure water consumption at a
time of year when there is less lawn sprinkling.

3782. Re: New Kennedy assassination audio!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-23 10:17:16 UTC
From: canarchy <canarchy13@hotmail.com>
Message-ID: <cnv2ps$5ea$1@news6.svr.pol.co.uk>
Source record: 21966

yea right just like that "tasteful"
episode with Lady Diana.

good enough for the goose

3783. Slighty faulty HP141t question

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-23 12:38:05 UTC
From: zindazenda <zen@lineisp.co.uk>
Message-ID: <1101215468.412611@smtp-1.griffin.com>
Source record: 21967

hello...

my old but trusty hp141t (1.2ghz) appears to have developed a fault/out of calibration??

it all works but now there is a spurious reading (peak) about 6.5mhz down from the fundamental peak..about 55db down..its always there when a signal is present (but not of course when no input.)
It's defiantly the analyser as I have tried different tx sources and its always present..
sniffing rf via bird 43 attenuator..

Any ideas??

simon g0zen

3784. FA:Hickok Cardmatic,Heath IT-12, Eico 955 + more

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-23 13:17:18 UTC
From: Heytubeguy <heytubeguy@worldnet.att.net>
Message-ID: <yLGod.50797$7i4.40184@bgtnsc05-news.ops.worldnet.att.net>
Source record: 21968

Take at look at this nice Hickok Cardmatic with 422 cards + the Heathkit
IT-12 Sig Tracer, and the Eico 955 at:

http://search.ebay.com/_W0QQgotopageZ1QQsassZheytubeguyQQsorecordsperpageZ25QQsosortorderZ1QQsosortpropertyZ1

More items there and coming as well-pse check often;

Heytubeguy

3785. Re: Slighty faulty HP141t question

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-23 19:48:53 UTC
From: Gary Schafer <gaschafer@comcast.net>
Message-ID: <9s47q05eafpjph72ui0u78atvpdc6l0hc9@4ax.com>
Source record: 21969

When you switch in an extra 10 db of attenuation at the input, does
the spur drop 10 db as well as the wanted signal drop 10 db?
If spur drops more then IM is being generated in the analyzer from
overload possibly.

73
Gary K4FMX

On Tue, 23 Nov 2004 12:38:05 -0000, "zindazenda" <zen@lineisp.co.uk>
wrote:

>hello...
>
>my old but trusty hp141t (1.2ghz) appears to have developed a fault/out of
>calibration??
>
>it all works but now there is a spurious reading (peak) about 6.5mhz down
>from the fundamental peak..about 55db down..its always there when a signal
>is present (but not of course when no input.)
>It's defiantly the analyser as I have tried different tx sources and its
>always present..
>sniffing rf via bird 43 attenuator..
>
>Any ideas??
>
>simon g0zen
>

3786. Re: DIY - Anyone built one of these - KIT : Deluxe Receiver HF Multicontroller (Multicoupler) Kit

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-24 03:52:28 UTC
From: "Michael St. Angelo" <mstangelo@comcast.net>
Message-ID: <-MednS_Mas_mmDncRVn-sw@comcast.com>
Source record: 21970
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

"RHF" <rhf-newsgroups@pacbell.net> wrote in message
news:ff3145e8.0411220226.33eddc63@posting.google.com...
> Do-It-Yourself (DIY) Project ?
>
> Q#1 - Has anyone "Built" one of these Kits ?

Yes. I enjoy building. I usually build something, test it out, and go to the
next project.
>
> Q#2 - How does the "Assembly" of the Kit go ?

The kit is for an intermediate builder. It went well because the assembly is
well
documented. The is lots of mechanical assembly on the front and rear panels
because
of the number of switches, LED's and connectors.
>
> Q#3 - Does the "Finished" Kit perform well enough so that it is
> 'worth' the Money and Time to built it ?

It does a good job, and the construction is solid but the video amplifier
chip
is noisier than passive splitters. I have lots of receivers in the workshop
and
having the ability to drive 8 receivers is a godsend, however. I also
listen to low
frequency signals (below 500khz) and it does a good job in this region. For
lf reception I replaced the 0.1uf coupling capacitors with 1.0uf units.
>
> Q#4 - Are there 'cheaper' Lower Cost Ready-Made alternatives
> to this "Kit" ?

The purpose of the switches is to enable each receiver by controlling the
mute.
If you don't need to control the mute of you receivers and don't need a
preamp
you might look a some passive splitters from minicircuits labs. The passive
splitters
will have loss, however. A 4 way splitter has 6db loss; an 8 way splitter
9db, so you would
need a preamp.
>

3787. Re: DIY - Anyone built one of these - KIT : Deluxe Receiver HF Multicontroller (Multicoupler) Kit

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-24 06:01:55 UTC
From: rhf-newsgroups@pacbell.net
Message-ID: <ff3145e8.0411232201.3283fd78@posting.google.com>
Source record: 21971
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

= = = "Michael St. Angelo" <mstangelo@comcast.net> wrote in message
= = = news:<-MednS_Mas_mmDncRVn-sw@comcast.com>...
> "RHF" <rhf-newsgroups@pacbell.net> wrote in message
> news:ff3145e8.0411220226.33eddc63@posting.google.com...
> > Do-It-Yourself (DIY) Project ?
> >
> > Q#1 - Has anyone "Built" one of these Kits ?
>
> Yes. I enjoy building. I usually build something, test it out, and go to the
> next project.
> >
> > Q#2 - How does the "Assembly" of the Kit go ?
>
> The kit is for an intermediate builder. It went well because the assembly is
> well
> documented. The is lots of mechanical assembly on the front and rear panels
> because
> of the number of switches, LED's and connectors.
> >
> > Q#3 - Does the "Finished" Kit perform well enough so that it is
> > 'worth' the Money and Time to built it ?
>
> It does a good job, and the construction is solid but the video amplifier
> chip
> is noisier than passive splitters. I have lots of receivers in the workshop
> and
> having the ability to drive 8 receivers is a godsend, however. I also
> listen to low
> frequency signals (below 500khz) and it does a good job in this region. For
> lf reception I replaced the 0.1uf coupling capacitors with 1.0uf units.
> >
> > Q#4 - Are there 'cheaper' Lower Cost Ready-Made alternatives
> > to this "Kit" ?
>
> The purpose of the switches is to enable each receiver by controlling the
> mute.
> If you don't need to control the mute of you receivers and don't need a
> preamp
> you might look a some passive splitters from minicircuits labs. The passive
> splitters
> will have loss, however. A 4 way splitter has 6db loss; an 8 way splitter
> 9db, so you would

> need a preamp.
> >

MSA,

Thank You for your Reply as well as the replies of the others.

tyvm ~ RHF
.
.

3788. Metal film resistors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-24 18:59:16 UTC
From: James Bond <justmereally@hotmail.com>
Message-ID: <co2lm4$c9l$1@titan.btinternet.com>
Source record: 21973

are metal film resistors wirewound or not? I've been trying to find this one out. Someone who I know says they're not so are suitable for RF but Maplin catalog seems to say they are.

someone please help!

dr. x

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Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.799 / Virus Database: 543 - Release Date: 22/11/2004

3789. wilkinson power combiner

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-24 19:00:34 UTC
From: James Bond <justmereally@hotmail.com>
Message-ID: <co2loh$88i$1@hercules.btinternet.com>
Source record: 21972

question now bout these things!

if i built a 5 port device, what would be the insertion loss (so i can calculate the power rating of the resistors)? would it be 3dB or 7dB (the signals aren't in phase or anything, in fact they're different frequencies).

thanks again!

dr. x

Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.799 / Virus Database: 543 - Release Date: 22/11/2004

3790. Re: Metal film resistors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-24 19:12:43 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10q9n9cj2m72523@corp.supernews.com>
Source record: 21974

They're not wirewound. They consist of a thin film of metal deposited on a ceramic tube, which is helically cut to leave a conductor in a spiral pattern. A wirewound resistor has a lot of inductance because it's made of many turns of wire. A metal film resistor has a very small amount of inductance by comparison -- so little that it can be ignored for most purposes.

Roy Lewallen, W7EL

James Bond wrote:
> are metal film resistors wirewound or not? I've been trying to find this one
> out. Someone who I know says they're not so are suitable for RF but Maplin
> catalog seems to say they are.
>
>
> someone please help!
>
> dr. x

3791. Re: wilkinson power combiner

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-24 19:16:47 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10q9nh0hnd02d4f@corp.supernews.com>
Source record: 21976

To my knowledge, you can't use a Wilkinson divider or combiner for signals at different frequencies or phases. It'll do something, for sure, but it certainly won't function as a Wilkinson divider is intended to. You won't have port-to-port isolation, and the loss will be much greater than you'd get with simple dividing. You'll likely end up with more power going into the resistors than out the ports, so I'd size the resistors to handle the sum of all signals going in, unless you can model it with SPICE or a similar program.

Roy Lewallen, W7EL

James Bond wrote:

> question now bout these things!
>
> if i built a 5 port device, what would be the insertion loss (so i can
> calculate the power rating of the resistors)? would it be 3dB or 7dB (the
> signals aren't in phase or anything, in fact they're different frequencies).
>
> thanks again!
>
>
> dr. x

3792. Re: Metal film resistors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-24 19:17:00 UTC
From: jimp@specsol-spam-sux.com
Message-ID: <co2mnc$h8f$1@mail.specsol.com>
Source record: 21975

James Bond <justmereally@hotmail.com> wrote:
> are metal film resistors wirewound or not? I've been trying to find this one
> out. Someone who I know says they're not so are suitable for RF but Maplin
> catalog seems to say they are.

> someone please help!

> dr. x

Strictly speaking they are not "wire wound", but some are constructed
with the film "wound" around a substrate, thus having a lot of inductance.

If you dont't have the makers specs to tell you, the choices are to
measure the inductance or to remove the coating and see what's underneath.

--
Jim Pennino

Remove -spam-sux to reply.

3793. 5A power supply construction

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-24 19:22:57 UTC
From: Ian Liston-Smith <ian@morse-code.NO.SPAM.TODAY.fsnet.co.uk>
Message-ID: <u1n9q0l9tcr3865kqb20ohhdhphcofp9qn@4ax.com>
Source record: 21977

I'm looking to build a 3A 34V regulated linear power supply. The LM338 adjustable regulator looks just what I need, but it's upper limit is 32V.

Can a zenner be placed in the common lead somewhere as can be done to fixed regulators? I've downloaded the spec sheet, but it doesn't give specific examples of how it may be done, although says "...several hundred volts can be regulated..."

Are there other freely available regulators that will do what I want?

Many thanks,

Ian.

3794. Re: Metal film resistors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-24 19:49:04 UTC
From: dplatt@radagast.org
Message-ID: <10q9pdg7okkj268@corp.supernews.com>
Source record: 21978

>> are metal film resistors wirewound or not? I've been trying to find this one
>> out. Someone who I know says they're not so are suitable for RF but Maplin
>> catalog seems to say they are.

>Strictly speaking they are not "wire wound", but some are constructed
>with the film "wound" around a substrate, thus having a lot of inductance.

>If you dont't have the makers specs to tell you, the choices are to
>measure the inductance or to remove the coating and see what's underneath.

Several manufacturers (Caddock and some of the Vishay divisions) make
metal-film resistors which are advertised as having about the same
amount of inductance as a straight wire the same length as the
resistor body. I believe that these have the film cut into a
back-and-forth serpentine meander pattern, rather than a spiral.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

3795. Re: Magnet Wire Stripper Gel Substitute?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-24 20:43:59 UTC
From: averyfineman@aol.com
Message-ID: <20041124154359.06144.00000099@mb-m27.aol.com>
Source record: 21981

In article <J3Und.89453$Tq1.65425@bignews1.bellsouth.net>, Ken Scharf
<wa2mzeNOTTHIS@bellsouth.net> writes:

>Dale Parfitt wrote:
>> "Scott" <acepilot@bloomer.net> wrote in message
>> news:K_qdnVcIL7e3nj3cRVn-qw@bright.net...
>>
>>>Stripping magnet wire? You mean like after making coils and wanting to
>>>solder them to something? Why bother? Just put a blob of solder on
>>>your iron's tip and put the end of the magnet wire into the solder blob.
>>> After several seconds, the insulation will melt off and the wire end
>>>will be tinned with solder and ready for install!
>>>
>>>Scott
>>>N0EDV
>>>
>>>This is only true for some types- like Belden Soldereze. Many others will
>>
>> not be touched by heat- formvar for example.
>>
>> Dale W4OP
>>
>I usually just take a piece of 120-400 grit sandpaper, fold it in half
>and pull the wire through it. Several passes usually is enough.

Thanks for the comment on the old, tried-and-true chemical-less
way. Finishing sandpaper (dark grey abrasive surface) will work
on 36 gauge old-style enamel covered wire, also on 25 gauge
(rare, surplus from transformer winder) Teflon covered. Takes a
bit of practice and "feel" to keep from abrading too much of the
copper on the very small gauges. :-)

I use the little squares of finishing grit paper cut into four smaller
pieces, each of those folded in two. Lightly holding the fold-over,
a couple passes over the wire end is all that is needed.

On the suggestions by others -

"Soldereze" and "Thermaleze" wire would strip just by soldering
iron heating of the copper right at the cut...but still needs some
abrading after starting the melt sometimes. I've used that, but
ran out. In winding toroids by hand, that kind tends to expose
the copper in places unseen except by high magnification. For
that former the old enamel type seems to be the sturdiest (with
exception of rare and way-over-expensive Teflon-covered). In my
experience that includes Kynar covered wire-wrap type...others'

mileage may vary.

"Zip Strip" (methylene chloride) is an unknown here, including the supplier. [no supplier source posted]

The old GC "Strip-X" was the best for quick one-of-a-kind coil winding. It was definitely acidic by odor and reaction to some other materials...would have some enamel "lifting" action within ten seconds of application. Alas, my father-in-law, a polymer chemist, passed on a quarter century ago and cannot help with expert advice on this. :-(

The search for a quick stripper (of wire) goes on...perhaps aided by "inductive reasoning?" :-) Thanks again to all for replying.

LenAnderson@ieee.org

3796. Re: Metal film resistors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-24 20:57:59 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <ejPMaALXXPpBFAX8@ifwtech.co.uk>
Source record: 21979

James Bond wrote:
>are metal film resistors wirewound or not? I've been trying to find this one
>out. Someone who I know says they're not so are suitable for RF but Maplin
>catalog seems to say they are.
>
They can be suitable for some RF applications. If you are thinking of the wire-ended ones up to 2-3W, they are a flat spiral of just a few turns of the metal film, on a ceramic core.

Plugging the number of turns, diameter and length into the usual formula suggests inductances of less than 0.1uH, even for the larger ones. This means they have inductive reactances rising up to about 10 ohms at 30MHz.

For example, if you wanted to use say a 47 ohm resistor as a dummy load, the SWR would be quite reasonable up to 30MHz.

However, the inductance of the higher-value resistors goes up much less rapidly then the resistance does (they use a thinner film of a more resistive material, but not a lot more turns). The inductance of a 470R metal film resistor is not a lot higher than that of a 47R. So if you were to use ten 470R resistors in parallel to make your dummy load, the inductive reactance would be divided by 10 and the SWR would be much better.

I have used multiple-paralleled 2W metal film resistors as high as 50MHz, and up to144MHz in situations where the inductance could be tuned out.

The ones I tested can also be overloaded to red heat for several seconds without significantly changing resistance when cold - unlike the cheaper carbon film resistors which burn (as carbon does), or wire-wound resistors which generally develop a hot-spot and burn out.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

3797. Re: Slighty faulty HP141t question

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-24 21:45:08 UTC
From: zindazenda <zen@lineisp.co.uk>
Message-ID: <1101334149.819198@smtp-1.griffin.com>
Source record: 21980

yes it seems to drop 10db as well...its possible to "remove" the spur by
switching in more attenuation, but doing this completly removes the 2nd/3rd
harmonics as well..which is after all what I am trying to look at..

oh the plug ins are 8552a and 8554b

simon
"Gary Schafer" <gaschafer@comcast.net> wrote in message
news:9s47q05eafpjph72ui0u78atvpdc6l0hc9@4ax.com...
> When you switch in an extra 10 db of attenuation at the input, does
> the spur drop 10 db as well as the wanted signal drop 10 db?
> If spur drops more then IM is being generated in the analyzer from
> overload possibly.
>
> 73
> Gary K4FMX
>
>
> On Tue, 23 Nov 2004 12:38:05 -0000, "zindazenda" <zen@lineisp.co.uk>
> wrote:
>
> >hello...
> >
> >my old but trusty hp141t (1.2ghz) appears to have developed a fault/out
of
> >calibration??
> >
> >it all works but now there is a spurious reading (peak) about 6.5mhz down
> >from the fundamental peak..about 55db down..its always there when a
signal
> >is present (but not of course when no input.)
> >It's defiantly the analyser as I have tried different tx sources and its
> >always present..
> >sniffing rf via bird 43 attenuator..
> >
> >Any ideas??
> >
> >simon g0zen
> >
>

3798. Re: Magnet Wire Stripper Gel Substitute?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-24 23:57:25 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <Fd9pd.2046$cE3.14@clgrps12>
Source record: 21982

Behold, Avery Fineman signalled from keyed 4-1000A filament:

> "Zip Strip" (methylene chloride) is an unknown here, including the
> supplier. [no supplier source posted]

Methylene chloride is used to glue plexiglass. Check an acrylic plastics
dealer.

--
Gregg t3h g33k
"Ratings are for transistors....tubes have guidelines"
http://geek.scorpiorising.ca

3799. Re: Metal film resistors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-25 00:26:30 UTC
From: Duncan Munro <postmaster@duncanamps.com>
Message-ID: <emj8u1rfglqe.zw8r9t4h0rqw$.dlg@40tude.net>
Source record: 21983

On Wed, 24 Nov 2004 20:57:59 +0000, Ian White, G3SEK wrote:

> Plugging the number of turns, diameter and length into the usual formula
> suggests inductances of less than 0.1uH, even for the larger ones. This
> means they have inductive reactances rising up to about 10 ohms at
> 30MHz.

Ian, I've just measured a couple of resistors bought as spares for the FL-2100Z, 33 ohm 3W metal film used as a grid stopper, and 22 ohm 3W metal oxide used on the anode, again as a suppressor, with a coil wound round it (both of the originals were carbon).

The metal film 33R measures 6.5uH and the oxide 22R measures 4.5uH on the aade.com meter. Both values (if the readings are correct) would represent a high ratio of X to R at HF frequencies...

I have quite a surplus of them, so if you wish I can send one of each in the mail for you to check on your VNA.

--
Duncan Munro
http://www.duncanamps.com/

3800. Re: wilkinson power combiner

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-25 03:33:16 UTC
From: skavanagh72nospam@yahoo.ca
Message-ID: <5249fb3f.0411241933.6fa72e27@posting.google.com>
Source record: 21984

"James Bond" <justmereally@hotmail.com> wrote in message
news:<co2loh$88i$1@hercules.btinternet.com>...
>
> if i built a 5 port device, what would be the insertion loss (so i can
> calculate the power rating of the resistors)? would it be 3dB or 7dB (the
> signals aren't in phase or anything, in fact they're different frequencies).

My guess would be 7 dB. But I would do like Roy says and model it
with Spice or whatever. Multi-way Wilknsons are just too bizarre for
my brain, though I have seen the occasional paper on the subject !

I did model a 2-way Wilkinson combiner (the microwave kind with real
transmission lines) with a single input signal and much to my (and
probably Roy's) surprise it was perfectly matched and had a 3 dB loss
from one of the two inputs to the common port.

73,
Steve VE3SMA

3801. Re: wilkinson power combiner

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-25 03:39:27 UTC
From: skavanagh72nospam@yahoo.ca
Message-ID: <5249fb3f.0411241939.55c5149c@posting.google.com>
Source record: 21985

"James Bond" <justmereally@hotmail.com> wrote in message
news:<co2loh$88i$1@hercules.btinternet.com>...
!
>
> if i built a 5 port device, what would be the insertion loss (so i can
> calculate the power rating of the resistors)? would it be 3dB or 7dB (the
> signals aren't in phase or anything, in fact they're different frequencies).

My guess would be 7 dB. But multi-way Wilkinsons are too bizarre for
my brain ! I would do what Roy says and model it with SPICE or
whatever.

I did model a normal 2-way Wilkinson combiner with only a single input
(the microwave kind with actual transmission lines) and to my surprise
(and probably Roy's) it was perfectly matched at one frequency, had
perfect isolation at one frequency and gave a 3 dB loss from one of
the two input ports to the common port (all at the design frequency
only, of course).

73,
Steve VE3SMA

3802. Re: Metal film resistors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-25 06:36:57 UTC
From: Howard Eisenhauer <howarde@REMOVECAPShfx.eastlink.ca>
Message-ID: <a7vaq0h6p7r6ollhvgnafnrqtt0s3phkhe@4ax.com>
Source record: 21986

I've used "Flame Proof" resisters to build signal splitters, the
outputs were within .1 db of a commercial unit (made by Suhner) @ 850
Mhz.

That ain't bad :).

Howard.

On Wed, 24 Nov 2004 18:59:16 +0000 (UTC), "James Bond"
<justmereally@hotmail.com> wrote:

>are metal film resistors wirewound or not? I've been trying to find this one
>out. Someone who I know says they're not so are suitable for RF but Maplin
>catalog seems to say they are.
>
>
>someone please help!
>
>dr. x
>
>
>---
>Outgoing mail is certified Virus Free.
>Checked by AVG anti-virus system (http://www.grisoft.com).
>Version: 6.0.799 / Virus Database: 543 - Release Date: 22/11/2004
>

3803. Re: Metal film resistors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-25 07:32:27 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <524VvpCLqYpBFADV@ifwtech.co.uk>
Source record: 21987

Duncan Munro wrote:
>On Wed, 24 Nov 2004 20:57:59 +0000, Ian White, G3SEK wrote:
>
>> Plugging the number of turns, diameter and length into the usual formula
>> suggests inductances of less than 0.1uH, even for the larger ones. This
>> means they have inductive reactances rising up to about 10 ohms at
>> 30MHz.
>
>Ian, I've just measured a couple of resistors bought as spares for the
>FL-2100Z, 33 ohm 3W metal film used as a grid stopper, and 22 ohm 3W metal
>oxide used on the anode, again as a suppressor, with a coil wound round it
>(both of the originals were carbon).
>
>The metal film 33R measures 6.5uH and the oxide 22R measures 4.5uH on the
>aade.com meter. Both values (if the readings are correct) would represent
>a high ratio of X to R at HF frequencies...
>
>I have quite a surplus of them, so if you wish I can send one of each in
>the mail for you to check on your VNA.
>
Those values seem surprisingly high, so yes, please do and I will
measure them.

Based on the standard inductance formula (and there seems no reason why
that shouldn't apply in this case) it would seem to require very large
numbers of turns to achieve >1uH.

My posting was based on the ones I scraped the paint off in pre-VNA
days, so it would be useful to collect more data on typical 'coil'
dimensions and numbers of turns, together with the actual effective
inductances.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

3804. Re: Metal film resistors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-25 12:11:02 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <3tibq09gnq25i97ne4dvmot1ba18po6k87@4ax.com>
Source record: 21988

On Thu, 25 Nov 2004 07:32:27 +0000, "Ian White, G3SEK"
<G3SEK@ifwtech.co.uk> wrote:

>Those values seem surprisingly high, so yes, please do and I will
>measure them.

Please post the results here when you've done so, Ian. I for one would
also be interested.

--

"What is now proved was once only imagin'd." - William Blake, 1793.

3805. Re: 5A power supply construction

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-25 13:29:50 UTC
From: John Walton <jdwalton@comcast.net>
Message-ID: <xZKdnfPcI-uJQDjcRVn-rQ@comcast.com>
Source record: 21989

Use an LM317HV and a pass transistor.

"Ian Liston-Smith" <ian@morse-code.NO.SPAM.TODAY.fsnet.co.uk> wrote in
message news:u1n9q0l9tcr3865kqb20ohhdhphcofp9qn@4ax.com...
>
> I'm looking to build a 3A 34V regulated linear power supply. The LM338
> adjustable regulator looks just what I need, but it's upper limit is
> 32V.
>
> Can a zenner be placed in the common lead somewhere as can be done to
> fixed regulators? I've downloaded the spec sheet, but it doesn't give
> specific examples of how it may be done, although says "...several
> hundred volts can be regulated..."
>
> Are there other freely available regulators that will do what I want?
>
> Many thanks,
>
> Ian.

3806. DSP in receiving systems

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-25 13:30:58 UTC
From: David J Windisch <davidw@copper.net>
Message-ID: <41a5ded5_3@newsfeed.slurp.net>
Source record: 21990

Hi, all concerned:

Ponderings while listening to a dead 40M c-w frequency ...

What artifacts does latency in a DSP implementation cause?

I'm thinking of eg a "DSP rcvr" OOH and an "analog receiver" OTOH, both tuned to WWV, and the noticeable delay of the DSP audio from the analog audio. You know, ti-tick ti-tick instead of tick-tick-tick, and "blurred" voice announcements.

I've noticed a similar effect in add-on DSP by putting speakers at the input and at the output of the add-on device. Stereo cans make the effect downright strange.

Fast c-w QSK would seem to be a challenge, especially if latency varies with selectivity.

Makes me wonder how the commercial "DSP rigs" perform. I'm mostly satisfied with an Elecraft K2 (wish it had 200W barefoot, instead of 100W), and have fond memories of my TS-850's. Never met a commercial radio I couldn't make better ;o)

IAC, happy Thanksgiving and 73,

Dave, N3HE

3807. Re: Looking for roller inductors

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-25 14:20:52 UTC
From: alanh_27@yahoo.com
Message-ID: <1e3670a7.0411250620.59b4ee77@posting.google.com>
Source record: 21991
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.repair

"ON5MJ" <my_call_sign@skynet.be>
> [are roller] inductors still for sale or still build ? I would like to
> buy two identical roller inductors of about 20 to 30 ï¿½H for an antenna
> tuner.

Thnk outside the box. There is more than one way to skin the cat of variable inductance. In the old days, they configured 2 inductors next to each other, with one of them able to rotate. Varying the angle of the dangle, varied the amount of mutal coupling, effectively changing the inductance. Seems much easier to implement than rollers, which truly require serious metalworking facilities to make.

It is actually possible to inject reactance of either sign, onto a line by running a motor with an over/under-excited field current, on the line. This is used frequently on ships to correct power factor problems. Probably not facile for a desk-top transmitter.

Really old QST's are available on microfiche and on CD now, I believe. Look through the 1920's and 1930's. Those were the golden years of homebrewing. We're fortunate that we live in an epoch when that word-of-ragchew sort of alchemist knowledge is preserved in robust, widely-available media.... There's PLENTY of mathematical knowledge from the Greeks that got lost.

Large public libraries often still hold QSTs & Radio Amateur Handbooks from decades ago. Find them. Let us know what you find, let us know what you build!

3808. Re: potting compound

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-25 14:29:36 UTC
From: canarchy <canarchy13@hotmail.com>
Message-ID: <co4q9l$o1h$1@news8.svr.pol.co.uk>
Source record: 21992

V. Potting Dissolving Chemicals:

1. Dynaloy Inc.,1910 S. State Avenue, Indianapolis, IN 46203 Phone:
800-669-5709 Fax:
800-671-9583

3809. Re: Help! Transformer induces hum to chassis!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-25 14:35:16 UTC
From: alanh_27@yahoo.com
Message-ID: <1e3670a7.0411250635.74c53436@posting.google.com>
Source record: 21993

John Popelish <jpopelish@rica.net> wrote
> Microwave oven transformers operate with parts of the core very nearly
> saturated during parts of the cycle [...]

why are they designed that way?

3810. Re: DSP in receiving systems

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-25 14:45:48 UTC
From: Leon Heller <leon_heller@hotmail.com>
Message-ID: <41a5f01c$0$15428$cc9e4d1f@news-text.dial.pipex.com>
Source record: 21994

"David J Windisch" <davidw@copper.net> wrote in message
news:41a5ded5_3@newsfeed.slurp.net...
> Hi, all concerned:
>
> Ponderings while listening to a dead 40M c-w frequency ...
>
> What artifacts does latency in a DSP implementation cause?
>
> I'm thinking of eg a "DSP rcvr" OOH and an "analog receiver" OTOH, both
> tuned to WWV, and the noticeable delay of the DSP audio from the analog
> audio. You know, ti-tick ti-tick instead of tick-tick-tick, and "blurred"
> voice announcements.
>
> I've noticed a similar effect in add-on DSP by putting speakers at the
> input and at the output of the add-on device. Stereo cans make the
> effect downright strange.
>
> Fast c-w QSK would seem to be a challenge, especially if latency varies
> with selectivity.
>
> Makes me wonder how the commercial "DSP rigs" perform. I'm mostly
> satisfied with an Elecraft K2 (wish it had 200W barefoot, instead of
> 100W), and have fond memories of my TS-850's. Never met a commercial
> radio I couldn't make better ;o)

Delay is inherent in most DSP systems used for filtering, because they
generally use a circular buffer for the convolution operation. It acts like
a delay line.

73, Leon

3811. CR2016 battery w solder tabs - where to buy

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-25 15:37:19 UTC
From: fsweeney@gmail.com
Message-ID: <9800a1e9.0411250737.53b1386e@posting.google.com>
Source record: 21995
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc

I need to replace the CR2016 in my Yeasu FT-5200. Seems ridiculous to pay $10+ to Yeasu for a $2.00 battery. Has anyone had any luck finding a source that you can share with me for a low cost alternative?

Thanks and 73,
Frank K9IC

3812. Re: CR2016 battery w solder tabs - where to buy

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-25 16:13:03 UTC
From: Allodoxaphobia <bit-bucket@config.com>
Message-ID: <slrncqc14e.312.bit-bucket@shell.config.com>
Source record: 21996
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc

On 25 Nov 2004 07:37:19 -0800, Frank hath writ:
> I need to replace the CR2016 in my Yeasu FT-5200. Seems ridiculous to
> pay $10+ to Yeasu for a $2.00 battery. Has anyone had any luck finding a
> source that you can share with me for a low cost alternative?
>
> Thanks and 73,
> Frank K9IC

Tin the tips of two wires -- Smash them flat with a ball-peen hammer --
Trime the tinned leads to a wee bit less than the diameter of the
battery -- Assemble the wires and the battery by slipping some heat
shrink tubing over the whole mess -- Shrink to taste.

If you have some pices of Very Thin brass, cut two brass pieces to
a somewhat smaller diameter than the battery -- Solder each wire to
one pice of brass -- Assemble the brass pieces and the battery by
slipping some heat shrink tubing over the whole mess -- Shrink to taste.

Use hot melt glue to tack the battery in place inside the radio.

73
Jonesy
--
| Marvin L Jones | jonz | W3DHJ | linux
| Gunnison, Colorado | @ | Jonesy | OS/2 __
| 7,703' -- 2,345m | config.com | DM68mn SK

3813. Re: CR2016 battery w solder tabs - where to buy

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-25 16:42:35 UTC
From: Dave Bushong <db@9y.com>
Message-ID: <WfudnYx36IXmljvcRVn-og@adelphia.com>
Source record: 21997
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc

Allodoxaphobia wrote:
> On 25 Nov 2004 07:37:19 -0800, Frank hath writ:
>
>>I need to replace the CR2016 in my Yeasu FT-5200. Seems ridiculous to
>>pay $10+ to Yeasu for a $2.00 battery. Has anyone had any luck finding a
>>source that you can share with me for a low cost alternative?
>>
>>Thanks and 73,
>>Frank K9IC
>
>
> Tin the tips of two wires -- Smash them flat with a ball-peen hammer --
> Trime the tinned leads to a wee bit less than the diameter of the
> battery -- Assemble the wires and the battery by slipping some heat
> shrink tubing over the whole mess -- Shrink to taste.
>
> If you have some pices of Very Thin brass, cut two brass pieces to
> a somewhat smaller diameter than the battery -- Solder each wire to
> one pice of brass -- Assemble the brass pieces and the battery by
> slipping some heat shrink tubing over the whole mess -- Shrink to taste.
>
> Use hot melt glue to tack the battery in place inside the radio.
>
> 73
> Jonesy

I replaced the soldered-in battery in the TS-60 by buying a battery
holder at radio shack, soldered that in, and then slipped in a $1.50
CR20xx battery.

3814. Re: DSP in receiving systems

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-25 17:13:27 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10qc4lnroc7h580@corp.supernews.com>
Source record: 21848

Leon Heller wrote:

> "David J Windisch" <davidw@copper.net> wrote in message
> news:41a5ded5_3@newsfeed.slurp.net...
>
>>Hi, all concerned:
>>
>>Ponderings while listening to a dead 40M c-w frequency ...
>>
>>What artifacts does latency in a DSP implementation cause?
>>
>>I'm thinking of eg a "DSP rcvr" OOH and an "analog receiver" OTOH, both
>>tuned to WWV, and the noticeable delay of the DSP audio from the analog
>>audio. You know, ti-tick ti-tick instead of tick-tick-tick, and "blurred"
>>voice announcements.
>>
>>I've noticed a similar effect in add-on DSP by putting speakers at the
>>input and at the output of the add-on device. Stereo cans make the
>>effect downright strange.
>>
>>Fast c-w QSK would seem to be a challenge, especially if latency varies
>>with selectivity.
>>
>>Makes me wonder how the commercial "DSP rigs" perform. I'm mostly
>>satisfied with an Elecraft K2 (wish it had 200W barefoot, instead of
>>100W), and have fond memories of my TS-850's. Never met a commercial
>>radio I couldn't make better ;o)
>
>
> Delay is inherent in most DSP systems used for filtering, because they
> generally use a circular buffer for the convolution operation. It acts like
> a delay line.
>
> 73, Leon
>
>
The DSP allows you to implement a type of filter called "finite impulse
response". These have some strong advantages over the type of filters
(infinite impulse response) used in analog systems, mostly sharper
filtering for the amount of ringing, and the capability to make filters
adaptable (like adaptable notching). One price you pay, however, is
latency.

Fast QSK would be interesting, but if you were willing to go without
sidetone and perhaps hear the break request while you're keying I think

it would be doable (I wouldn't know from personal experience -- I do DSP work professionally but don't have any DSP rigs).

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

3815. Re: Help! Transformer induces hum to chassis!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-25 17:15:49 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10qc4q4bb9iir76@corp.supernews.com>
Source record: 21849

Alan Horowitz wrote:

> John Popelish <jpopelish@rica.net> wrote
>
>>Microwave oven transformers operate with parts of the core very nearly
>>saturated during parts of the cycle [...]
>
>
> why are they designed that way?

Probably to save money on the core -- the oven will cost a few cents
less to make, a few dollars less to buy, then you pay that all back to
the power company as your kitchen gets hot. It would also add a modicum
of voltage regulation to the thing, but I doubt that's the reason.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

3816. Re: CR2016 battery w solder tabs - where to buy

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-25 17:49:29 UTC
From: wally <wally@nospam.com>
Message-ID: <41A61B27.73FF1B5D@nospam.com>
Source record: 21850
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc

hi frank,

http://www.mouser.com and digikey has them.

for those with the ts-50, either the battery holder replacement with
slip in cell works fine.

The solder the wire on the cell can work but why take the chance
of heating the insides up and possible leaks later destroy the rig.

wally

Frank wrote:

> I need to replace the CR2016 in my Yeasu FT-5200. Seems ridiculous to
> pay $10+ to Yeasu for a $2.00 battery. Has anyone had any luck finding a
> source that you can share with me for a low cost alternative?
>
> Thanks and 73,
> Frank K9IC

3817. Re: Help! Transformer induces hum to chassis!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-25 17:59:02 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <odjhVTKm1hpBFAzx@ifwtech.co.uk>
Source record: 21851

Tim Wescott wrote:
>Alan Horowitz wrote:
>
>> John Popelish <jpopelish@rica.net> wrote
>>
>>>Microwave oven transformers operate with parts of the core very
>>>nearly
>>>saturated during parts of the cycle [...]
>> why are they designed that way?
>
>Probably to save money on the core -- the oven will cost a few cents
>less to make, a few dollars less to buy, then you pay that all back to
>the power company as your kitchen gets hot. It would also add a
>modicum of voltage regulation to the thing, but I doubt that's the reason.
>
It is mostly done for current limiting, which a magnetron needs because
(in DC terms) it looks like a diode connected across the power supply.
Saving size, cost and weight is also important, so the transformers are
pared right down to the bone.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

3818. Re: Metal film resistors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-25 18:43:56 UTC
From: Jim Adney <jadney@vwtype3.org>
Message-ID: <9lsaq0tkrls8c0pfajdevno05pfd7pbt4e@4ax.com>
Source record: 21852

On Wed, 24 Nov 2004 18:59:16 +0000 (UTC) "James Bond"
<justmereally@hotmail.com> wrote:

>are metal film resistors wirewound or not? I've been trying to find this one
>out. Someone who I know says they're not so are suitable for RF but Maplin
>catalog seems to say they are.

They are not WIREwound, but the resistive element IS usually a helical
film that is a layer on a ceramic body.

As someone else mentioned, there are some types which are serpentine
rather than helical, but these are always special and sold as such.

Film resistors generally have fewer turns in their helix than
wirewounds, so they will have more inductance than carbon or ceramic
bulk resistors but less than wire wound resistors.

-

Jim Adney jadney@vwtype3.org
Madison, WI 53711 USA

3819. Re: CR2016 battery w solder tabs - where to buy

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-25 20:22:54 UTC
From: dplatt@radagast.org
Message-ID: <10qcfoumqst3e64@corp.supernews.com>
Source record: 21853
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc

>I need to replace the CR2016 in my Yeasu FT-5200. Seems ridiculous to
>pay $10+ to Yeasu for a $2.00 battery. Has anyone had any luck finding a
>source that you can share with me for a low cost alternative?

www.mouser.com. Part #639-CR2016-T, Sanyo CR2016 coin cell with tabs,
$3.75 in onesies. I imagine Digi-Key has something like this as well.

The non-tabbed versions are a fraction of the cost... I suspect the
tabbed ones are rather a specialty item.

Earlier this year I modded an Icom IC-228 which had one of these
tabbed batteries, nearing the end of its useful lifetime. I pulled a
coin-cell holder off of a defunct PC motherboard, stuck it down in a
convenient area inside the radio with double-sided foam tape (I used
the spot where a tone-squelch board would normally have gone),
jumpered it over to the existing coin-cell attachment leads, installed
an ordinary coin cell, and then clipped the tabs on the old battery
and removed it. The memory never lost power, and I can now replace
the battery again (in another 5-10 years) without having to desolder
anything.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

3820. Re: 5A power supply construction

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-25 20:48:17 UTC
From: Ian Jackson <IanJacksonRemoveThisBit@g3ohx.demon.co.uk>
Message-ID: <0bMOiCJRUkpBFwx9@g3ohx.demon.co.uk>
Source record: 21854

In message <u1n9q0l9tcr3865kqb20ohhdhphcofp9qn@4ax.com>, Ian
Liston-Smith <ian@morse-code.NO.SPAM.TODAY.fsnet.co.uk> writes
>
>I'm looking to build a 3A 34V regulated linear power supply. The LM338
>adjustable regulator looks just what I need, but it's upper limit is
>32V.
>
>Can a zenner be placed in the common lead somewhere as can be done to
>fixed regulators? I've downloaded the spec sheet, but it doesn't give
>specific examples of how it may be done, although says "...several
>hundred volts can be regulated..."
>
>Are there other freely available regulators that will do what I want?
>
>Many thanks,
>
>Ian.

I've just scanned through the data sheet
(http://www.national.com/pf/LM/LM338.html).

I can't immediately see what limits the voltage to 32V. It seems to need
a minimum of about 4V across it, and the lowest output is 1.2V. However,
there doesn't seem to be any way it knows where 0V is.

I suspect that you can do as you suggest, ie jack up the common lead to
34V minus the 1.2V reference. You will need 38V input minimum.

Maybe it potentially dies on switch-on, because the output will
momentarily be at 0V (especially if you have any capacitor between the
output and 0V). However, you'll probably get away with it! Don't forget
to connect a diode back from output to input (to kill the reverse
voltage when you switch off).

I made a 1A PSU using 7805, with the common terminal jacked with zeners
(switched in as required). It goes from 5 to 24V. I've had it for about
20 years.

Ian.

--

3821. Re: Help! Transformer induces hum to chassis!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-25 21:25:01 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10qcjddbo7na31f@corp.supernews.com>
Source record: 21855

Ian White, G3SEK wrote:

> Tim Wescott wrote:
>
>> Alan Horowitz wrote:
>>
>>> John Popelish <jpopelish@rica.net> wrote
>>>
>>>> Microwave oven transformers operate with parts of the core very nearly
>>>> saturated during parts of the cycle [...]
>>>
>>> why are they designed that way?
>>
>>
>> Probably to save money on the core -- the oven will cost a few cents
>> less to make, a few dollars less to buy, then you pay that all back to
>> the power company as your kitchen gets hot. It would also add a
>> modicum of voltage regulation to the thing, but I doubt that's the
>> reason.
>>
> It is mostly done for current limiting, which a magnetron needs because
> (in DC terms) it looks like a diode connected across the power supply.
> Saving size, cost and weight is also important, so the transformers are
> pared right down to the bone.
>
>
I know they purposely add leakage inductance by putting in a "shorting
bar" between the primary and secondary sides of the coil -- I don't
think allowing the core to saturate would give you any significant
current limiting on the secondary side unless you were willing to put up
with runaway current input on the primary side as your excitation
inductance went away.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

3822. Re: Looking for roller inductors

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-25 22:42:06 UTC
From: ON5MJ <my_call_sign@skynet.be>
Message-ID: <41a65eec$0$13457$ba620e4c@news.skynet.be>
Source record: 21856
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.repair

Thank you Alan for your suggestions.

1. On variometers, there are subsequent questions: what about flexibility and size ? A roller coil of about 20 cm long and 10 cm in diameter, having about 45 turns has an inductance spread between 1 and 35 µH. To do the same with a variometer, with the same accuracy, the same inductance and a smooth trim what do we have to do ? I have no experience in this domain but my first impression is that the design will not be that simple. May be this could be THE solution.

2. About old QST's you are right. One of these Christmas I will ask a complete set of CD's. I also have 15 ARRL handbooks, whith "mil°sime" spread between 1945 and 2001, but not yet seen something about variometers.

73 de ON5MJ - Jacques.

3823. Re: Metal film resistors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-26 00:35:33 UTC
From: Duncan Munro <postmaster@duncanamps.com>
Message-ID: <1trz55qn79ruy.xapyqfveda7$.dlg@40tude.net>
Source record: 21857

On Thu, 25 Nov 2004 07:32:27 +0000, Ian White, G3SEK wrote:

> Duncan Munro wrote:
>>I have quite a surplus of them, so if you wish I can send one of each in
>>the mail for you to check on your VNA.

> Those values seem surprisingly high, so yes, please do and I will
> measure them.

OK, will post them off tomorrow night. I'll include the manufacturers info
(they were bought recently from Mouser in the US), and put two of each in
so that you can crack one of each value open and see what they're made of
;-)

--
Duncan Munro
http://www.duncanamps.com/

3824. S-Meter Calibration Standards?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-26 04:05:22 UTC
From: averyfineman@aol.com
Message-ID: <20041125230522.06525.00000141@mb-m24.aol.com>
Source record: 21858

Is there a standard RF input level per "S" Unit?

If so, please post the location. Thanks.

LenAnderson@ieee.org

3825. Re: potting compound

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-26 04:05:24 UTC
From: averyfineman@aol.com
Message-ID: <20041125230524.06525.00000142@mb-m24.aol.com>
Source record: 21859

In article <68obq01htg7lc1hhce8nhbn0cds2ihi5qf@4ax.com>, beerbarrel
<beerbarrel@cox.net> writes:

>any way to remove the gel like compound in some electronic components?
>I have a ps that I would like to rob parts from but its frozen in a
>block of clear gel like material. There has to be an easy way to
>remove this substance? Any ideas?

If it is relatively clear and rubbery with a slight "give" to it, a guess
is that it is probably a low out-gassing silicone potting compound
such as used in some spacecraft electronics. Those were all
one-time pottings, done after checkout and never intended to be
un-potted for any reason.

My advice is to NOT use any solvents of any kind for the simple
reason that such can get into some of the internal components
and do nasty things. Solvents have very low (almost negative)
surface tension and could penetrate any component not
hermetically sealed by metal-glass cases or all-ceramic, fired
cases. Those potting compounds of various epoxies or silicone
types were near-vacuum debubbled just before mixing their two
parts (also in the same near-vacuum) and would surround the
components but not penetrate their cases. Note: Some of those
potting materials were transparent or translucent like the common
silicone conformal coating used on old PC Boards for spacecraft.
That kind of potting material polymerized once and once "set"
was NOT usually dissolved by ANY solvents.

You MIGHT be able to use a soldering iron to dig into the potting
material to loosen most of it, but that creates some (unknown
effect) smelly vapors. In the end, the parts would have to be
salvaged by mechanical means such as carefully picking away
the stuff by a model knife (old reliable X-Acto type and its
cousins with lots of spare blades for replacement). That's a
very labor-intensive task...like two working days to remove the
translucent potting compound around a multi-stage voltage
multiplier block for the designer's evaluation after full environment
testing (EOS Spacecraft Fab Lab back in the 1960s). It may not
be worth it for a hobbyist. That's an individual call.

Jet Propulsion Laboratory in Pasadena, CA, had, and presumably
still has an excellent polymer laboratory and "rules" for NASA on
polymers for spacecraft. Somebody there could give better
advice (information is free, unclassified, but speaks in chemistry
terms, not requested much) on potting removal methods. That
isn't "casting plastic" (acrylic) one can buy at the Michael's craft

store chain.

Emerson and Cuming are specialists on potting and coating
compounds for electronics (also wideband RF absorber material).
You might inquire to them about this material and see what they
have to say. Also anyone that makes silicone rubber compounds
for potting or just do a search for "silicone potting" (not just the
word "potting" or there are too many hits on the results).

LenAnderson@ieee.org

3826. Re: S-Meter Calibration Standards?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-26 04:25:11 UTC
From: Ralph Mowery <rmowery28146@earthlink.net>
Message-ID: <Heypd.851$Z%5.41@newsread2.news.atl.earthlink.net>
Source record: 21860

"Avery Fineman" <averyfineman@aol.com> wrote in message
news:20041125230522.06525.00000141@mb-m24.aol.com...
> Is there a standard RF input level per "S" Unit?
>
> If so, please post the location. Thanks.
>

There is no "standard". You will often see it mentioned as 6 db of power per S-unit. At one time 50 microvolts into the receiver was S-9 and you went down 6 db of power per S-unit from there. I doubt that any receiver will follow that so called "standard".

3827. Re: S-Meter Calibration Standards?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-26 04:56:42 UTC
From: bviel <sjouk@home.nl>
Message-ID: <co6d2r$jn1$1@news5.zwoll1.ov.home.nl>
Source record: 21861

The rule voor 50 V = S9 does still exists, this is voor HF, @50 Ohm input impedance at receiver.
"They" (radioamateurs) use another rule for VHF.
It's in the software MultiCalc, Google will find the adres, it's for free.
Official or not, if everyone use this rule then it is a standard for me.
Greetings Bas.

"Avery Fineman" <averyfineman@aol.com> schreef in bericht
news:20041125230522.06525.00000141@mb-m24.aol.com...
> Is there a standard RF input level per "S" Unit?
>
> If so, please post the location. Thanks.
>
> LenAnderson@ieee.org

3828. Re: S-Meter Calibration Standards?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-26 06:07:54 UTC
From: James Bond <justmereally@hotmail.com>
Message-ID: <co6h7p$91q$1@hercules.btinternet.com>
Source record: 21862

I find that most of them seem to sort of follow the rule that 4uV is S9, 3dB down is each S-Point, that's for VHF/UHF.

Sam

"bviel" <sjouk@home.nl> wrote in message news:co6d2r$jn1$1@news5.zwoll1.ov.home.nl...
> The rule voor 50 V = S9 does still exists, this is voor HF, @50 Ohm input
> impedance at receiver.
> "They" (radioamateurs) use another rule for VHF.
> It's in the software MultiCalc, Google will find the adres, it's for free.
> Official or not, if everyone use this rule then it is a standard for me.
> Greetings Bas.
>
>
> "Avery Fineman" <averyfineman@aol.com> schreef in bericht
> news:20041125230522.06525.00000141@mb-m24.aol.com...
>> Is there a standard RF input level per "S" Unit?
>>
>> If so, please post the location. Thanks.
>>
>> LenAnderson@ieee.org
>
>

Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.799 / Virus Database: 543 - Release Date: 24/11/2004

3829. Re: S-Meter Calibration Standards?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-26 07:12:52 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <4ynVeyF0dtpBFAz2@ifwtech.co.uk>
Source record: 21863

Avery Fineman wrote:
> Is there a standard RF input level per "S" Unit?
>
> If so, please post the location. Thanks.
>
There is an IARU recommendation, which originated in Region1
(Europe/Africa) and I believe has been adopted by IARU world-wide.

The Region 1 recommendation is:
http://www.algonet.se/~k-jarl/ssa/IARU/smeter.html
Google should also bring up the full technical paper behind this, and
probably the current IARU recommendation. ISTR there's something on the
ARRL website too.

The 1990 Region 1 recommendation simply states that:

STANDARDISATION OF S-METER READINGS
1. One S-unit corresponds to a signal level difference of 6 dB,

2. On the bands below 30 MHz a meter deviation of S-9 corresponds to an
available power of -73 dBm from a continuous wave signal generator
connected to the receiver input terminals,

3. On the bands above 144 MHz this available power shall be -93 dBm,

4. The metering system shall be based on quasi-peak detection with an
attack time of 10 msec +/- 2 msec and a decay time constant of at least
500 msec.

IARU functions very much like an
Entmoot...only...not...quite...so...hoom...hasty. In 2004, they are just
starting to think about the gap between 30MHz and 144MHz:
http://home.hccnet.nl/a.dogterom/Vienna04/vie04_19_Chair.rtf

But all the other comments about S-meters are true as well: that no
S-meter actually conforms to this recommendation; that it makes no
practical difference; and that hardly anyone cares.

There's a very good web page with lots of practical measurements, at:
http://www.seed-solutions.com/gregordy/Amateur%20Radio/Experimentation/SM
eterBlues.htm

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

3830. Re: S-Meter Calibration Standards?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-26 07:45:29 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10qdnost2q9nub9@corp.supernews.com>
Source record: 21864

If you're wondering if S-meters are calibrated to some standard, the answer is that they're not. S-meters simply read the AGC voltage, which is only approximately logarithmic. Therefore, the number of dB per S unit typically varies from one part of the scale to another. For example, the S-meter in my Icom 730, on 40 meters, preamp off, varies from 1.3 to 4.0 dB per S-unit depending on where on the scale you are. The "10 dB" increments over S-9 vary from 5.6 to 13.5 dB. Receiver manufacturers are free to make the sensitivity whatever they want, and seldom exceed about 5 dB per S-unit, because users complain that the meter is too "Scotch" (insensitive) if they do.

There is a tendency for receivers to be calibrated to about 50 microvolts at one point on the meter, S-9, and there's often a calibration adjustment for this.

Any "standard" is useless at best and misleading at worst, because it bears no relation to what S-meters really read.

Roy Lewallen, W7EL

Avery Fineman wrote:
> Is there a standard RF input level per "S" Unit?
>
> If so, please post the location. Thanks.
>
> LenAnderson@ieee.org

3831. Re: S-Meter Calibration Standards?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-26 12:17:32 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <2c7eq0lsa4mgn2uht6j11euerc03h29hbi@4ax.com>
Source record: 21865

On Fri, 26 Nov 2004 05:56:42 +0100, "bviel" <sjouk@home.nl> wrote:

>The rule voor 50ï¿½V = S9 does still exists, this is voor HF, @50 Ohm input
>impedance at receiver.
>"They" (radioamateurs) use another rule for VHF.
>It's in the software MultiCalc, Google will find the adres, it's for free.
>Official or not, if everyone use this rule then it is a standard for me.
>Greetings Bas.
>
>
>"Avery Fineman" <averyfineman@aol.com> schreef in bericht
>news:20041125230522.06525.00000141@mb-m24.aol.com...
>> Is there a standard RF input level per "S" Unit?
>>
>> If so, please post the location. Thanks.
>>
>> LenAnderson@ieee.org
>

On HF there is no need for an S-meter standard because it seems to be
the rule to give report 59. If you don't you soon have a bad
reputation of giving wrong reports

I installed an MC3356 log detector and calibrated it for S9 = 50uV.
For about 15 years there has never been any signal of S9+30dB, most
reports should be around 539....579, but again you logging problems,
because everybody expect 599 and some log programs don't include the
reports, they are supposed to be 599

73
Jan-Martin
LA8AK (ex-G5BFV)

J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

3832. Re: S-Meter Calibration Standards?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-26 12:38:08 UTC
From: "William E. Sabin" <sabinw@mwci.net>
Message-ID: <10qe8tl6udjvr64@corp.supernews.com>
Source record: 21866

"Avery Fineman" <averyfineman@aol.com> wrote in message
news:20041125230522.06525.00000141@mb-m24.aol.com...
> Is there a standard RF input level per "S" Unit?
>
> If so, please post the location. Thanks.
>

My homebrew solid state receiver (see QRZ.COM) uses 5 dB per S-unit. S9 corresponds to -73 dBm available power, which is 100 microvolts open-circuit from a 50 ohm sig gen, or 50 microvolts into a 50 ohm load. Available power and open-circuit voltage are used because the input inpedance of the receiver is not guaranteed to be 50 ohms. I use 5 dB per S unit because it compresses the scale a little and it also agrees more closely with the intuitive listening test measure that I have used for many years. The upper end of the scale is 30 dB above S9, which is -43 dBm, a very strong signal. Signals stronger than S9+30 dB I don't bother to measure. At S1 the signal level is -73 - 40 = -113 dBm. Signals weaker than that S1 I don't try to quantify.

My receiver has a low noise RF preamp with 8 dB of gain that I use on the 12 and 10 meter bands, when those bands are quiet. This makes the S meter less accurate but I don't worry about that. To get an S meter reading I turn off the preamp briefly.

My receiver has a custom made, computer printed scale using a calibrated sig gen, and there are two trimpot adjustments, one for the low end and one for the high end. This circuit uses voltage regulated opamps. The S meter dynamics are adjusted using RC time constants.

My S meter is accurate within +/- 2 dB from 160 M to 10 M, because the receiver is designed for this accuracy. Because of the IF and RF circuit design, the scale calibration is fairly correct and reliable, as I mentioned.

Bill W0IYH

3833. Re: S-Meter Calibration Standards?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-26 13:05:46 UTC
From: "William E. Sabin" <sabinw@mwci.net>
Message-ID: <10qeahcampip489@corp.supernews.com>
Source record: 21867

"William E. Sabin" <sabinw@mwci.net> wrote in message
news:10qe8tl6udjvr64@corp.supernews.com...
>
> "Avery Fineman" <averyfineman@aol.com> wrote in message
> news:20041125230522.06525.00000141@mb-m24.aol.com...
>> Is there a standard RF input level per "S" Unit?
>>
>> If so, please post the location. Thanks.
>>
>
> My homebrew solid state receiver (see QRZ.COM) uses 5 dB per S-unit. S9
> corresponds to -73 dBm available power, which is 100 microvolts
> open-circuit from a 50 ohm sig gen, or 50 microvolts into a 50 ohm load.
> Available power and open-circuit voltage are used because the input
> inpedance of the receiver is not guaranteed to be 50 ohms. I use 5 dB per
> S unit because it compresses the scale a little and it also agrees more
> closely with the intuitive listening test measure that I have used for
> many years. The upper end of the scale is 30 dB above S9, which is -43
> dBm, a very strong signal. Signals stronger than S9+30 dB I don't bother
> to measure. At S1 the signal level is -73 - 40 = -113 dBm. Signals weaker
> than that S1 I don't try to quantify.
>
> My receiver has a low noise RF preamp with 8 dB of gain that I use on the
> 12 and 10 meter bands, when those bands are quiet. This makes the S meter
> less accurate but I don't worry about that. To get an S meter reading I
> turn off the preamp briefly.
>
> My receiver has a custom made, computer printed scale using a calibrated
> sig gen, and there are two trimpot adjustments, one for the low end and
> one for the high end. This circuit uses voltage regulated opamps. The S
> meter dynamics are adjusted using RC time constants.
>
> My S meter is accurate within +/- 2 dB from 160 M to 10 M, because the
> receiver is designed for this accuracy. Because of the IF and RF circuit
> design, the scale calibration is fairly correct and reliable, as I
> mentioned.
>
> Bill W0IYH

My receiver also has a 20 dB antenna input attenuator that can be switched
in from the front panel. This extends the upper signal range to S9 + 50 dB.
I use it very rarely.

Bill W0IYH

3834. Re: 5A power supply construction

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-26 14:15:07 UTC
From: John Walton <jdwalton@comcast.net>
Message-ID: <vOidnSdid-OspDrcRVn-uQ@comcast.com>
Source record: 21868

the LM338 is, after all, a voltage reference, error amplifier and pass element with current limiting -- you can raise the adjust pin above ground with a zener to make a higher voltage regulator -- but you have to remember to bias the zener since the adjust pin current may not be enough to do the trick.

The LM338 is comparatively expensive. If you have to regulate 40V at 5 amps, an LM337 HV and a husky PNP will do the job cheaper, or you can just use a zener and a PNP for a "super-zener", albeit with limited performance.

Here's how I did it for an amplifier which I had to completely take apart and strip down:
http://www.tech-diy.com/hv_schem.jpg

"Ian Jackson" <IanJacksonRemoveThisBit@g3ohx.demon.co.uk> wrote in message news:0bMOiCJRUkpBFwx9@g3ohx.demon.co.uk...
> In message <u1n9q0l9tcr3865kqb20ohhdhphcofp9qn@4ax.com>, Ian
> Liston-Smith <ian@morse-code.NO.SPAM.TODAY.fsnet.co.uk> writes
> >
> >I'm looking to build a 3A 34V regulated linear power supply. The LM338
> >adjustable regulator looks just what I need, but it's upper limit is
> >32V.
> >
> >Can a zenner be placed in the common lead somewhere as can be done to
> >fixed regulators? I've downloaded the spec sheet, but it doesn't give
> >specific examples of how it may be done, although says "...several
> >hundred volts can be regulated..."
> >
> >Are there other freely available regulators that will do what I want?
> >
> >Many thanks,
> >
> >Ian.
>
> I've just scanned through the data sheet
> (http://www.national.com/pf/LM/LM338.html).
>
> I can't immediately see what limits the voltage to 32V. It seems to need
> a minimum of about 4V across it, and the lowest output is 1.2V. However,
> there doesn't seem to be any way it knows where 0V is.
>
> I suspect that you can do as you suggest, ie jack up the common lead to
> 34V minus the 1.2V reference. You will need 38V input minimum.
>
> Maybe it potentially dies on switch-on, because the output will

> momentarily be at 0V (especially if you have any capacitor between the
> output and 0V). However, you'll probably get away with it! Don't forget
> to connect a diode back from output to input (to kill the reverse
> voltage when you switch off).
>
> I made a 1A PSU using 7805, with the common terminal jacked with zeners
> (switched in as required). It goes from 5 to 24V. I've had it for about
> 20 years.
>
> Ian.
>
>
> --
>

3835. K2

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-26 16:13:40 UTC
From: w8irq@aol.com
Message-ID: <20041126111340.07716.00001106@mb-m01.aol.com>
Source record: 21869

Anyone have an unbuilt elecraft K2 that they would like to dispose of. Nick

3836. Re: S-Meter Calibration Standards?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-26 16:49:42 UTC
From: Ken Scharf <wa2mzeNOTTHIS@bellsouth.net>
Message-ID: <A2Jpd.116161$Tq1.95273@bignews1.bellsouth.net>
Source record: 21870

> On HF there is no need for an S-meter standard because it seems to be
> the rule to give report 59. If you don't you soon have a bad
> reputation of giving wrong reports
>
A signal doesn't have to be S9 to be heard 5 by 9.
I would usually tell the guy on the other end what
the S meter read, and also how readable he was.
When the band is quiet QRN wise, I could honestly
give a 59 report to someone hardly moving the meter.
OTOH with heavy QRM+QRN someone could be pumping
30db over and still be a rough copy.

3837. Another Big Transformer!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-26 17:18:00 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <e3peq050kep04lh0e4g8hrfa8gdnuokcmo@4ax.com>
Source record: 21871

Hi, fellow radio enthusiasts,

Take a look at this:
http://cgi.ebay.co.uk/ws/eBayISAPI.dll?ViewItem&category=413&item=6133062859&rd=1

Stare adoringly at it, then tell me what is meant by a "Pulse Forming
Network" - I'd be interested to know what this design feature is.

Thanks,

p.
--

"What is now proved was once only imagin'd." - William Blake, 1793.

3838. Re: Another Big Transformer!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-26 17:47:32 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <U_Jpd.192791$df2.128239@edtnps89>
Source record: 21872

Behold, Paul Burridge signalled from keyed 4-1000A filament:

> Hi, fellow radio enthusiasts,
>
> Take a look at this:
> http://cgi.ebay.co.uk/ws/eBayISAPI.dll?ViewItem&category=413&item=6133062859&rd=1
>
> Stare adoringly at it, then tell me what is meant by a "Pulse Forming
> Network" - I'd be interested to know what this design feature is.
>
> Thanks,
>
> p.

Radar?

--
Gregg t3h g33k
"Ratings are for transistors....tubes have guidelines"
http://geek.scorpiorising.ca

3839. Re: S-Meter Calibration Standards?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-26 17:55:42 UTC
From: Ralph Mowery <rmowery28146@earthlink.net>
Message-ID: <y6Kpd.130$6K5.100@newsread2.news.atl.earthlink.net>
Source record: 21873

"Ken Scharf" <wa2mzeNOTTHIS@bellsouth.net> wrote in message
news:A2Jpd.116161$Tq1.95273@bignews1.bellsouth.net...
> > On HF there is no need for an S-meter standard because it seems to be
> > the rule to give report 59. If you don't you soon have a bad
> > reputation of giving wrong reports
> >
> A signal doesn't have to be S9 to be heard 5 by 9.
> I would usually tell the guy on the other end what
> the S meter read, and also how readable he was.
> When the band is quiet QRN wise, I could honestly
> give a 59 report to someone hardly moving the meter.
> OTOH with heavy QRM+QRN someone could be pumping
> 30db over and still be a rough copy.

Then you are still passing out wrong signal reports. The first one would be
something like 5 x 2 or 5 x 3 and the second one would be 2 x 9 or 3 x 9.

The first number is how well you can understand what is being said and the
second is how strong the signal is.

3840. Re: Another Big Transformer!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-26 18:06:31 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10qes5aa5e72g9a@corp.supernews.com>
Source record: 21874

A "pulse forming network" is a simple LC lumped approximation to a short circuited transmission line. A voltage step is applied to it, and after the round trip time of the "transmission line", the input drops back to zero. The resulting pulse is applied as the supply voltage to a radar transmitting tube such as a klystron or magnetron, which produces an RF output pulse of that width.

Because a PFN limits you to a fixed pulse width, I doubt they're used much any more -- there are lots of advantages in being able to vary the pulse width.

I worked on heavy ground radar on the DEW line in the mid '60s, where this technology was used. On the radar I worked on the most(*), a pulse of several kV was applied to a PFN by connecting it to a power supply with a thyratron. The thyratron was extinguished when the trailing edge of the pulse occurred. The pulse width was a few microseconds. This was applied to the primary of an oil-filled transformer which the magnatron plugged directly into. The transformer stepped the pulse voltage up by ten times and applied it to the cathode of the magnatron, which then oscillated for the duration. The applied power during the time of the pulse was over 5 MW, giving 5 MW output power. The pulse repitition rate was between 2 and 3 ms, so the average power was in the several kW range, and the range of the radar was several hundred miles. The insides of the PFN would physically constrict when forming a pulse, so it produced a fairly loud audible buzz of 400 Hz or so when the radar was operating.

(*) See http://www.radarpages.co.uk/mob/rotor/fps6.htm or http://www.radomes.org/museum/equip/fps-6.html. I don't think the ebay PFN came from this exact same model of radar, but it's from one of comparable size and vintage.

Roy Lewallen, W7EL

Paul Burridge wrote:

> Hi, fellow radio enthusiasts,
>
> Take a look at this:
> http://cgi.ebay.co.uk/ws/eBayISAPI.dll?ViewItem&category=413&item=6133062859&rd=1
>
> Stare adoringly at it, then tell me what is meant by a "Pulse Forming
> Network" - I'd be interested to know what this design feature is.
>
> Thanks,
>

> p.

3841. Re: Another Big Transformer!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-26 18:35:53 UTC
From: Joe McElvenney <ximac@btinternet.com>
Message-ID: <VA.0000005b.004a0b33@btinternet.com>
Source record: 21875

Hi,

> (*) See http://www.radarpages.co.uk/mob/rotor/fps6.htm or
> http://www.radomes.org/museum/equip/fps-6.html. I don't think the ebay
> PFN came from this exact same model of radar, but it's from one of
> comparable size and vintage.

Anyone who did a radar course at RAF Locking in the late
50's or early 60's should remember the FPS-6 height finder
alongside one of the training blocks as the "Nodding Horror"
since such was its local name.

The PFN in that eBay ad is of British manufacture. You
can tell that from the '99' in the NATO part number and
the colour scheme is typical also.

Cheers - Joe

3842. Re: S-Meter Calibration Standards?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-26 18:36:28 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <co7t3c$6be$1@titan.btinternet.com>
Source record: 21876

There has been a de-facto HF standard for 60 years.

The USA military first used it in specifications of radio equipment when placing contracts with manufacturers around the end of WW2. There may have been some restrictions on publicity at the time.

The Standard is 6 dB per S-unit and 50 micro-volts into 50 ohms at S=9.

Therefore an S-meter is essentially a power or wattmeter.

The Standard is quite logically derived.

The 6 dB fits in very nicely between a typical receiver's internal noise level (S=0) and a typical receiver's signal overload point (S=9+30 or 40 dB).

S=9 is about half way up the scale which is linear in dB's, or S-units, from one end to the other.

There's nothing wrong with the standard. If your S-meter reads incorrectly then don't blame the standard - re-calibrate the meter. If you can't re-calibrate it blame the poor quality of the meter.

I have two relatively modern commercial transceivers plus two home-brewed transceivers. Their S-meters are accurate enough for the intended purpose. What more should I expect?

Reg, G4FGQ

3843. Re: S-Meter Calibration Standards?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-26 20:27:19 UTC
From: averyfineman@aol.com
Message-ID: <20041126152719.06260.00000155@mb-m26.aol.com>
Source record: 21877

In article <10qdnost2q9nub9@corp.supernews.com>, Roy Lewallen <w7el@eznec.com>
writes:

>Any "standard" is useless at best and misleading at worst, because it
>bears no relation to what S-meters really read.

Roger that, and I've heard all kinds of "599" reports on-air, too. :-)

In the project I have on-going, this receiver's S-Meter (there mainly
for nostalgia purposes and because I've gotten a few old-style
microammeters that I can use) will read the average carrier power
(integrated to a time-constant yet to be settled on) at the AM
detector using a half of a quad op-amp integrator. That same
detector provides the AGC control line with appropriate DC offset
for the MC1349 gain blocks, but with (maybe) different integration
time-constants. As for the RF input to the antenna connector,
that is known within +/- 2 db down to -130 dbm by separate
calibration of my HP 608 or 606 signal generator. When
completed, this particular receiver S-Meter will be as accurate,
with a custom scale plate, as that signal generator output will
allow.

Of course, to fit the "convention" of those gratuitous "599" reports,
I could borrow from the auto industry's cheapie "gas gauge" which
has a single bulb showing "low gas" on the dashboard...using an
LED driven by an op-amp integrator-comparator for high-tech.
The indicator would show "I got signal" or "I got noise" to fit... :-)

LenAnderson@ieee.org

3844. Re: S-Meter Calibration Standards?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-26 20:27:19 UTC
From: averyfineman@aol.com
Message-ID: <20041126152719.06260.00000154@mb-m26.aol.com>
Source record: 21879

In article <10qe8tl6udjvr64@corp.supernews.com>, "William E. Sabin"
<sabinw@mwci.net> writes:

>My receiver has a custom made, computer printed scale using a calibrated sig
>gen, and there are two trimpot adjustments, one for the low end and one for
>the high end. This circuit uses voltage regulated opamps. The S meter
>dynamics are adjusted using RC time constants.
>
>My S meter is accurate within +/- 2 dB from 160 M to 10 M, because the
>receiver is designed for this accuracy. Because of the IF and RF circuit
>design, the scale calibration is fairly correct and reliable, as I
>mentioned.
>
>Bill W0IYH

Thanks, Bill. I'm doing essentially the same...and expect the overall
receiver response to the flat within +/- 1 db within an octave and a
half tuning range. Accuracy of the S-Meter is only as good as the
RF level accuracy of the calibrating RF source but that's another
task and I have confidence in that. But, I have to start someplace
and that is why I asked about a "standard." I know that the U.S.
military didn't bother with any receiver S-Meter calibration standards
since around 1980, only approximate differential signal strength
readings if there was an indicator at all.

LenAnderson@ieee.org

3845. Re: S-Meter Calibration Standards?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-26 20:27:20 UTC
From: averyfineman@aol.com
Message-ID: <20041126152720.06260.00000156@mb-m26.aol.com>
Source record: 21878

In article <4ynVeyF0dtpBFAz2@ifwtech.co.uk>, "Ian White, G3SEK"
<G3SEK@ifwtech.co.uk> writes:

>> Is there a standard RF input level per "S" Unit?
>>
>> If so, please post the location. Thanks.
>>
>There is an IARU recommendation, which originated in Region1
>(Europe/Africa) and I believe has been adopted by IARU world-wide.

Thanks, Ian, and thanks to all others responding. A plus to Reg
Edwards for mentioning the U.S. military receiver specs which
I was hunting around for but could not find. :-(

Reason for asking is that I'm going to make a meter scale for a
little receiver a-building, using (nobody blanch, please) MS
Paint from a scanner (accurate 1:1) digitization of the removed
meter scale plate. I've done that with a normal-expanded scale
meter on a 120 W variable autotransformer box used on the
bench. MS Paint will do color in 256-color mode for a better
appearance. An inkjet printout on heavy photo paper stock
results in a fine-grain scale sturdy enough to replace the stock
plate in a little 2 1/2" microammeter.

Note: That works only on the old-style meters with removeable
scale plates (screw mounting type). Newer snap-together plastic
case types aren't recommended for that.

That method started on wondering how accurate an ordinary
scanner was...solved by scanning a 6-inch metal scale, printing
it, then comparing the real scale to the printout. By eyeball it
was dead-on! :-) I've done that for drill guides on PC board
stock used for both circuit boards and small enclosures since
and find it very time-economical. Machine shop accurate it isn't
but then my home shop drill locations were never that accurate
using scribe marks on "dye-chem" blue lacquer painted on
aluminum. :-) [rubber cement holds the paper printout on the
work, removes easily afterwards]

LenAnderson@ieee.org

3846. Re: S-Meter Calibration Standards?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-26 21:21:59 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <co86pn$j9o$1@titan.btinternet.com>
Source record: 21880

Most people appear to be fatally attempting to use, in reverse, their favourite S-meter as a means of calibrating the Standard. No wonder we have so many different standards around.

The difficulties in making an accurate power meter lie solely in the very wide range of power levels encountered.

0 to S-9 corresponds to 9 times 6 dB = 54 dB.

S-9 to +40 dB corresponds to 40 dB.

Making a very high total range of 94 dB for a power meter.

That explains why S-9 usually appears just over half way up the scale.

For a range of 94 dB it is not beyond modern technology to make a linear dB scale out of it. The limitation is manufacturing cost. But who wants to pay an extra hundred dollars to replace a receiver they are already happy with.

Of course, if you MUST have an accurate S-meter, the cheap way is to obtain a blank meter scale, a fine-nibbed pen, a bottle of black ink, a signal generator, and a 0-100 dB switched attenuator. You will proudly end up with a work of art and a beautifully cramped scale at the bottom end. But when done it's as accurate as you like!

Hint: There's no need to obtain a new blank scale if the existing scale can just be turned over to its white side. Such small divergencies can make restful breaks in between investigations of skin depths at 1 to 10 Hz of the ocean bottom of transatlantic submarine cables.

Reg

3847. Re: CR2016 battery w solder tabs - where to buy

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-26 23:03:00 UTC
From: Jim Adney <jadney@vwtype3.org>
Message-ID: <ai5dq0h1qflqsvr1s6g0jgva8v00ueus2o@4ax.com>
Source record: 21881
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc

On 25 Nov 2004 07:37:19 -0800 fsweeney@gmail.com (Frank) wrote:

>I need to replace the CR2016 in my Yeasu FT-5200. Seems ridiculous to
>pay $10+ to Yeasu for a $2.00 battery. Has anyone had any luck finding a
>source that you can share with me for a low cost alternative?

Places like Battery Mart can weld tabs to any battery that they carry.
You could also just install a battery holder from a dead computer
motherboard. I have a couple here if you need one for the price of
postage.

-

Jim Adney jadney@vwtype3.org
Madison, WI 53711 USA

3848. Re: S-Meter Calibration Standards?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-27 00:26:55 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <co8hkf$ev3$1@sparta.btinternet.com>
Source record: 21882

Just to tidy up.

And I've been through this before but I'm just a bloody foreigner who favours French wine.

The S-meter is a power meter.

The standard receiver input impedance is 50 ohms.

That's why you get a conjugal match when you switch the transmit tuner from transmit to receive but you don't get such a match when you switch back.

The standard, HF, 50 microvolts at S-9 into 50 ohms corresponds to 50 pico-watts which is an inconvenient quantity to refer to in signal strength reports. Hence the popular S-units.

S-9 requires a standard 50-ohm signal generator, set to a standard open-circuit 100 micro-volts, to be connected to the receiver. Receiver manufacturers in their maintenance manuals usually prescibe this at the non-descript frequency of 7 MHz.

The internal thermal and other noise level of a typical receiver with an input stage consisting of a balanced modulator (the first frequency changer), referred to the receiver's input terminals, with a receiver SSB bandwidth of 4 KHz, is of the order of 60 dB below S-9. That is a little less than S-zero on the meter. A signal level of the same order as the noise takes the meter to S-zero.

A signal level of S-9 plus 40 dB, or 40 dB above 50 pico-watts, corresponds to a signal input voltage of 50 micro-volts times 100 which equals 5 milli-volts. At which point a good receiver begins to overload and suffers from non-linear intermod products.

Hence we have a meter range of 54 + 40 = 94 dB as displayed on a typical meter.

All this fits in very nicely with the recognised S-meter Calibration Standard.

(I do hope I have not made an arithmetical error. But I'm sure you Americans get the general idea nevertheless.)

Reg, G4FGQ

3849. Re: 5A power supply construction

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-27 11:07:36 UTC
From: Ian Liston-Smith <ian@morse-code.NO.SPAM.TODAY.fsnet.co.uk>
Message-ID: <utngq01rrgitit9h9qn1ptkng54u0ikcvg@4ax.com>
Source record: 21883

Thanks guys, you've given me some useful ideas!

Regards,

Ian

On Fri, 26 Nov 2004 09:15:07 -0500, "John Walton"
<jdwalton@comcast.net> wrote:

>the LM338 is, after all, a voltage reference, error amplifier and pass
>element with current limiting -- you can raise the adjust pin above ground
>with a zener to make a higher voltage regulator -- but you have to remember
>to bias the zener since the adjust pin current may not be enough to do the
>trick.
>

3850. Tesla Coils

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-27 13:52:07 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <kf1hq0ld4r641gc22dlrkjvuj8a1kjobhg@4ax.com>
Source record: 21884

Hi gang,

Anyone know what differentiates a Tesla coil from any other old coil?
Is it simply that they all seem to be EHT types or is there some
particular quirk concerning the way they're wound? IOW, what sets 'em
apart?

thanks,

p.
--

"What is now proved was once only imagin'd." - William Blake, 1793.

3851. Re: Tesla Coils

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-27 15:00:36 UTC
From: Leon Heller <leon_heller@hotmail.com>
Message-ID: <41a89695$0$16573$cc9e4d1f@news-text.dial.pipex.com>
Source record: 21885

"Paul Burridge" <pb@notthisbit.osiris1.co.uk> wrote in message
news:kf1hq0ld4r641gc22dlrkjvuj8a1kjobhg@4ax.com...
> Hi gang,
>
> Anyone know what differentiates a Tesla coil from any other old coil?
> Is it simply that they all seem to be EHT types or is there some
> particular quirk concerning the way they're wound? IOW, what sets 'em
> apart?

They are operated in a resonant system, unlike an ordinary HV transformer.

Leon

3852. Re: S-Meter Calibration Standards?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-27 15:30:16 UTC
From: xpyttl <xpyttl_NOSPAM@earthling.net>
Message-ID: <ja1qd.3$7H3.1@fe04.lga>
Source record: 21886

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:co86pn$j9o$1@titan.btinternet.com...
>
> Most people appear to be fatally attempting to use, in reverse, their
> favourite S-meter as a means of calibrating the Standard. No wonder we
have
> so many different standards around.

We have seen a dozen or so posters indicate that S9=50uv

Nowadays, very few rigs have analog meters. Instead, they have a computer
that can take that AGC voltage and display it however the computer decides.

In the Icom calibration procedure for the 706, there are three calibration
points known by the computer ... S0 (0 uv), S9 (50 uv), and S9+60 (50 mv).
The calibration procedure sets these three with known inputs, and presumably
the computer interpolates from there. That really isn't a bad calibration,
and I'd be surprised if other modern rigs were much different.

Now it is quite likely that there is some dependence on the AGC voltage with
frequency, but again, in a modern rig that should be manageable.

What isn't so constant, of course, is the antenna. The voltage at the
receiver could range over several orders of magnitude for the same signal
depending on the antenna. So in terms of providing input to the sender, the
S meter reading is still of limited usefulness, even if we all had
calibrated radios and agreed that S9=50uv.

..

3853. Re: S-Meter Calibration Standards?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-27 15:50:11 UTC
From: James Bond <justmereally@hotmail.com>
Message-ID: <coa7ni$11h$1@hercules.btinternet.com>
Source record: 21887

The 756 pro is "properly" calibrated, each S-Point is individually
calibrated.

Sam
"xpyttl" <xpyttl_NOSPAM@earthling.net> wrote in message
news:ja1qd.3$7H3.1@fe04.lga...
> "Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
> news:co86pn$j9o$1@titan.btinternet.com...
>>
>> Most people appear to be fatally attempting to use, in reverse, their
>> favourite S-meter as a means of calibrating the Standard. No wonder we
> have
>> so many different standards around.
>
> We have seen a dozen or so posters indicate that S9=50uv
>
> Nowadays, very few rigs have analog meters. Instead, they have a computer
> that can take that AGC voltage and display it however the computer
> decides.
>
> In the Icom calibration procedure for the 706, there are three calibration
> points known by the computer ... S0 (0 uv), S9 (50 uv), and S9+60 (50 mv).
> The calibration procedure sets these three with known inputs, and
> presumably
> the computer interpolates from there. That really isn't a bad
> calibration,
> and I'd be surprised if other modern rigs were much different.
>
> Now it is quite likely that there is some dependence on the AGC voltage
> with
> frequency, but again, in a modern rig that should be manageable.
>
> What isn't so constant, of course, is the antenna. The voltage at the
> receiver could range over several orders of magnitude for the same signal
> depending on the antenna. So in terms of providing input to the sender,
> the
> S meter reading is still of limited usefulness, even if we all had
> calibrated radios and agreed that S9=50uv.
>
> ..
>
>

Outgoing mail is certified Virus Free.

Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.799 / Virus Database: 543 - Release Date: 25/11/2004

3854. Re: S-Meter Calibration Standards?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-27 16:04:36 UTC
From: Ken Scharf <wa2mzeNOTTHIS@bellsouth.net>
Message-ID: <1w1qd.65828$IQ.31448@bignews6.bellsouth.net>
Source record: 21888

Ralph Mowery wrote:
> "Ken Scharf" <wa2mzeNOTTHIS@bellsouth.net> wrote in message
> news:A2Jpd.116161$Tq1.95273@bignews1.bellsouth.net...
>
>>>On HF there is no need for an S-meter standard because it seems to be
>>>the rule to give report 59. If you don't you soon have a bad
>>>reputation of giving wrong reports
>>>
>>
>>A signal doesn't have to be S9 to be heard 5 by 9.
>>I would usually tell the guy on the other end what
>>the S meter read, and also how readable he was.
>>When the band is quiet QRN wise, I could honestly
>>give a 59 report to someone hardly moving the meter.
>>OTOH with heavy QRM+QRN someone could be pumping
>>30db over and still be a rough copy.
>
>
> Then you are still passing out wrong signal reports. The first one would be
> something like 5 x 2 or 5 x 3 and the second one would be 2 x 9 or 3 x 9.
>
> The first number is how well you can understand what is being said and the
> second is how strong the signal is.
>
>
If you mean the actual strenth of the signal in uv at the antenna,
then you are correct. If you mean the strength of the signal in your
EARS that's another story. One is an actual measurement, the other
is subjective. (How would you measure signal strength if you
were using a receiver without an s meter, such as an old SW3?)

3855. Re: Tesla Coils

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-27 16:22:57 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <bbahq0pglaapu7q1bhbkj8p0abjfe6mn81@4ax.com>
Source record: 21889

On Sat, 27 Nov 2004 15:00:36 -0000, "Leon Heller"
<leon_heller@hotmail.com> wrote:

>"Paul Burridge" <pb@notthisbit.osiris1.co.uk> wrote in message
>news:kf1hq0ld4r641gc22dlrkjvuj8a1kjobhg@4ax.com...
>> Hi gang,
>>
>> Anyone know what differentiates a Tesla coil from any other old coil?
>> Is it simply that they all seem to be EHT types or is there some
>> particular quirk concerning the way they're wound? IOW, what sets 'em
>> apart?
>
>They are operated in a resonant system, unlike an ordinary HV transformer.

Thanks, Leon. Can you expand a bit? Are you suggesting that one or
both windings have some sort of parallel/series/real/parasitic
capacitance to bring the winding into resonance and if so, what's the
purpose behind it?
--

"What is now proved was once only imagin'd." - William Blake, 1793.

3856. Re: S-Meter Calibration Standards?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-27 16:30:46 UTC
From: Ralph Mowery <rmowery28146@earthlink.net>
Message-ID: <WY1qd.1649$6K5.402@newsread2.news.atl.earthlink.net>
Source record: 21890

>
> > Then you are still passing out wrong signal reports. The first one would be
> > something like 5 x 2 or 5 x 3 and the second one would be 2 x 9 or 3 x 9.
> >
> > The first number is how well you can understand what is being said and the
> > second is how strong the signal is.
> >
> >
> If you mean the actual strenth of the signal in uv at the antenna,
> then you are correct. If you mean the strength of the signal in your
> EARS that's another story. One is an actual measurement, the other
> is subjective. (How would you measure signal strength if you
> were using a receiver without an s meter, such as an old SW3?)

I don't mean a thing. If you take some time and review the RS(T) system you would see how it works. The first number is how well you understand what is being said from just catching a few words to understanding everything. The second is the strength of the signal. As the SW3 does not have an AVC system you may be able to judge the strength by how far up you have to turn the volume control for a certain loudness in your ears.

3857. Re: Tesla Coils

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-27 16:31:33 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <30rovaF34ihmkU1@uni-berlin.de>
Source record: 21891

The secondary and primary are resonant with each other.

The self-capacitance of the secondary is all that is required.
(Compare with early Xtal sets that had an FGL, but
no tuning capacitor (or condenser for those days) in evidence.

"Paul Burridge" <pb@notthisbit.osiris1.co.uk> wrote in message
news:kf1hq0ld4r641gc22dlrkjvuj8a1kjobhg@4ax.com...
> Anyone know what differentiates a Tesla coil from any other old coil?
> Is it simply that they all seem to be EHT types or is there some
> particular quirk concerning the way they're wound? IOW, what sets 'em
> apart?

3858. Re: S-Meter Calibration Standards?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-27 17:27:05 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <dsdhq0paftv8a86ohmtqfnq5vvp4hg67u6@4ax.com>
Source record: 21892

On Fri, 26 Nov 2004 07:05:46 -0600, "William E. Sabin"
<sabinw@mwci.net> wrote:

>
>"William E. Sabin" <sabinw@mwci.net> wrote in message
>news:10qe8tl6udjvr64@corp.supernews.com...
>>
>> "Avery Fineman" <averyfineman@aol.com> wrote in message
>> news:20041125230522.06525.00000141@mb-m24.aol.com...
>>> Is there a standard RF input level per "S" Unit?
>>>
>>> If so, please post the location. Thanks.
>>>
>>
>> My homebrew solid state receiver (see QRZ.COM) uses 5 dB per S-unit. S9
>> corresponds to -73 dBm available power, which is 100 microvolts
>> open-circuit from a 50 ohm sig gen, or 50 microvolts into a 50 ohm load.
>> Available power and open-circuit voltage are used because the input
>> inpedance of the receiver is not guaranteed to be 50 ohms. I use 5 dB per
>> S unit because it compresses the scale a little and it also agrees more
>> closely with the intuitive listening test measure that I have used for
>> many years. The upper end of the scale is 30 dB above S9, which is -43
>> dBm, a very strong signal. Signals stronger than S9+30 dB I don't bother
>> to measure. At S1 the signal level is -73 - 40 = -113 dBm. Signals weaker
>> than that S1 I don't try to quantify.
>>
>> My receiver has a low noise RF preamp with 8 dB of gain that I use on the
>> 12 and 10 meter bands, when those bands are quiet. This makes the S meter
>> less accurate but I don't worry about that. To get an S meter reading I
>> turn off the preamp briefly.
>>
>> My receiver has a custom made, computer printed scale using a calibrated
>> sig gen, and there are two trimpot adjustments, one for the low end and
>> one for the high end. This circuit uses voltage regulated opamps. The S
>> meter dynamics are adjusted using RC time constants.
>>
>> My S meter is accurate within +/- 2 dB from 160 M to 10 M, because the
>> receiver is designed for this accuracy. Because of the IF and RF circuit
>> design, the scale calibration is fairly correct and reliable, as I
>> mentioned.
>>
>> Bill W0IYH
>
>

>My receiver also has a 20 dB antenna input attenuator that can be switched
>in from the front panel. This extends the upper signal range to S9 + 50 dB.
>I use it very rarely.
>
>Bill W0IYH
>

defining the proper time-constant for ssb is another problem. My
activity has mainly been VHF/UHF cw and ssb, and working a few HF
contests on cw. Found that reporting and operational style is somewhat
different on HF and VHF. While the normal report on HF is 59 or 599,
it varies much more on VHF, and 519 report is not rare on VHF -
particularly if the OP has no experience from HF.
My favourite report is 559, because it is easy to send using elbug,
and it makes some fun, particularly when everybody expects to receive
a 599 report, so the opposite OP must make a note in his log that the
report wasn't the usual type, and somebody most likely may loose score

73
Jan-Martin, LA8AK

J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

3859. Re: S-Meter Calibration Standards?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-27 17:46:11 UTC
From: Ralph Mowery <rmowery28146@earthlink.net>
Message-ID: <D33qd.7507$Ua.646@newsread3.news.atl.earthlink.net>
Source record: 21893

>
> defining the proper time-constant for ssb is another problem. My
> activity has mainly been VHF/UHF cw and ssb, and working a few HF
> contests on cw. Found that reporting and operational style is somewhat
> different on HF and VHF. While the normal report on HF is 59 or 599,
> it varies much more on VHF, and 519 report is not rare on VHF -
> particularly if the OP has no experience from HF.
> My favourite report is 559, because it is easy to send using elbug,
> and it makes some fun, particularly when everybody expects to receive
> a 599 report, so the opposite OP must make a note in his log that the
> report wasn't the usual type, and somebody most likely may loose score
>
> 73
> Jan-Martin, LA8AK

Now we are getting to my bands of operating. Instead of the RS(T) type of reports grid squares are usually used on VHF. That eliminates the bogus 599 type of reports and while probably never used it will give a rough check to see if you actually copied the call correct as the grids can be compaired to the other stations that worked the same call
.

3860. Re: S-Meter Calibration Standards?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-27 17:54:19 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <coaf0b$r4o$1@sparta.btinternet.com>
Source record: 21894

S-meters are nothing else but power (input) meters.

Amateurs and meter manufacturers long ago learned, that when giving signal strength reports, it is more convenient to refer to meter indications in terms of S-units rather than micro-watts or nano-watts.

At HF, when the meter reads S-9 the power entering the receiver is 50 pico-watts. There's a slight complication above S-9 when the meter scale changes to decibels above S-9.

When the reading is S-9 plus 40 dB the meter is actually indicating about S-16. It's just a matter of scale graduations and printing.

The S-meter does NOT measure or even indicate field strength. It indicates nothing except that an increase in meter reading corresponds to an increase in field strength. Which may be nice to know but by how much of an increase is anybody's guess.

Measured field strength depends on the type of antenna, its efficiency, ground losses, etc. It is possible, of course, to calculate field strength in the vicinity of the antenna from S-meter readings provided the antenna, its directivity, transmission line, tuner and ground characteristics are all known numerically. Which in the amateur situation they are seldom not! Or even in the professional situation.

You've all got one. To repeat - the S-meter is a power (input) meter.

Reg, G4FGQ

3861. Request: Could Someone Tell Me How To Upload Files ? tnx, 73 Dennis

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-27 18:38:36 UTC
From: Dennis <Dennis@W2GLI.com>
Message-ID: <BS3qd.4341$kb.2357@fe12.lga>
Source record: 21895

[No readable article body recovered]

3862. Re: Tesla Coils

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-27 19:42:11 UTC
From: Leon Heller <leon_heller@hotmail.com>
Message-ID: <41a8d894$0$19159$cc9e4d1f@news-text.dial.pipex.com>
Source record: 21896

"Paul Burridge" <pb@notthisbit.osiris1.co.uk> wrote in message
news:bbahq0pglaapu7q1bhbkj8p0abjfe6mn81@4ax.com...
> On Sat, 27 Nov 2004 15:00:36 -0000, "Leon Heller"
> <leon_heller@hotmail.com> wrote:
>
>>"Paul Burridge" <pb@notthisbit.osiris1.co.uk> wrote in message
>>news:kf1hq0ld4r641gc22dlrkjvuj8a1kjobhg@4ax.com...
>>> Hi gang,
>>>
>>> Anyone know what differentiates a Tesla coil from any other old coil?
>>> Is it simply that they all seem to be EHT types or is there some
>>> particular quirk concerning the way they're wound? IOW, what sets 'em
>>> apart?
>>
>>They are operated in a resonant system, unlike an ordinary HV transformer.
>
> Thanks, Leon. Can you expand a bit? Are you suggesting that one or
> both windings have some sort of parallel/series/real/parasitic
> capacitance to bring the winding into resonance and if so, what's the
> purpose behind it?

Try Googling, you'll find lots of stuff.

Leon

3863. Re: Tesla Coils

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-27 19:49:48 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <coalospqs1@titan.btinternet.com>
Source record: 21897

>
> Anyone know what differentiates a Tesla coil from any other old coil?
> Is it simply that they all seem to be EHT types or is there some
> particular quirk concerning the way they're wound? IOW, what sets 'em
> apart?
==========

Paul, I've never seen a Tesla coil or even recollect seeing a photo of one. But I can imagine.

They are a means of generating very high voltages at relatively low radio frequencies.

Low radio frequencies to minimise RF radiation losses.

The coil is quite an ordinary, single-layer, solenoid, close-wound or relatively close wound in the form of a helix. Grounded at the lower end. Open circuit at the top, high-voltage end.

It is coupled to the RF generator via a few turns link winding at the bottom end.

Or the generator may be tapped into the bottom few turns.

The working frequency is that at which the coil is self-resonant with its own distributed self-capacitance.

The generator, by virtue of the number of turns on the coil and the number of the turns on the link coupling, is impedance-matched to the Q of the coil such that all the generator power is dissipated in the coil's RF resistance. This, of course, corresponds to maximum voltage at the top of the coil.

The situation is identical to a short HF helical antenna without a whip on the top, operating say in the 160 or 80 metre band - but without the radiation loss.

The radiation loss in the Tesla is low because its operating frequency is low. Most of the power being dissipated in the wire resistance.

The theory is very simple. The coil inductance with its self-capacitance must resonate at the working frequency. The coil Q must be very high and the wire resistance must be low to generate a very high voltage.

Many turns of wire are needed to resonate at LF but the wire diameter must be large enough to have a low resistance. Hence the larger the physical size of the coil the higher is the attainable voltage.

The few number of turns on the link (or tap) coupling is calculable but is better determined by experiment. One will always end up by pruning to match to a particular generator impedance for maximum Tesla voltage.

The coil's inductance is easily calculated from well known formlae. The coil's self-capacitance is more complicated. But what is really required is the resonant frequency. Or it can be found by experiment. (Which is what Tesla must have done.)

It so happens that my program SOLNOID3 will calculate the isolated self-resonant frequency of a solenoidal coil from its dimensions. For Tesla coils dimensions will be in metres and inductances of 10's of milli-henrys.

The practical design problem is insulation between adjacent coil turns. And of course the driving power. Having never seen one my instinct guides me towards a coil length to diameter ratio of 15-to-1.

Have you any intentions of making one?

Reg, G4FGQ

3864. Re: Tesla Coils

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-27 20:04:30 UTC
From: default <none@defaulter.net>
Message-ID: <59lhq0lhsg4c68vq6tjs87i6dqfoq79dh1@4ax.com>
Source record: 21898

On Sat, 27 Nov 2004 13:52:07 +0000, Paul Burridge
<pb@notthisbit.osiris1.co.uk> wrote:

>Hi gang,
>
>Anyone know what differentiates a Tesla coil from any other old coil?
>Is it simply that they all seem to be EHT types or is there some
>particular quirk concerning the way they're wound? IOW, what sets 'em
>apart?
>
>thanks,
>
>p.
Primary coil is a tank circuit (parallel LC usually) resonant with
the secondary coil. The secondary is usually placed inside the
primary coil.

While the primary is a parallel resonant circuit with a coil and
capacitor, the secondary is just a coil and series resonant, or a coil
with a large metallic body at the end to serve as a capacitor (spheres
and toroids are used to minimize corona loss)

A few turns of relatively large diameter wire or tubing in the primary
and a lot of turns in the secondary. 6:400 turns ratio is typical
enough for small systems, but that ratio isn't carved in stone.

The primary is wound as a helix or spiral, the secondary is wound on a
tube form, much longer than the diameter as a rule. Tuning the
primary to the secondary's resonant frequency is achieved via tapping
the primary coil with a movable tap.

Tesla or Oudin coils can easily produce hundreds of thousands of
volts. Lots of different forms and techniques are used to maximize
the output voltage - that's where it gets interesting.

The theory is simple - but building good coils takes experience.

They can be driven with high voltage transformers and spark gaps (the
most common technique) or vacuum tubes or solid state devices.

They are simple to build, good for high voltage experiments, producing
ozone, great visual effects, X rays, produce some RFI, etc..

There is a Tesla coil mailing list on the net that is very good. If
you want to build one (and I recommend it) they can be an invaluable
resource. http://www.pupman.com/ Lot of links to working tesla coils
and construction ideas.

Lindsay Publications www.lindsaybks.com is another source of books on the topic (among others). Lindsay reprints books published at the turn of the century (that would be the 1900's) on technology. It is fascinating reading about tesla and induction coil construction - and you can still build the stuff today with more modern materials. They did have a paper catalog of their books in print - may still have it.

I built a few coils and a 1KW induction coil to drive them.

3865. Re: K2

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-27 20:38:25 UTC
From: w9gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <4B5qd.154465$HA.5679@attbi_s01>
Source record: 21899

"W8IRQ" <w8irq@aol.com> wrote in message
news:20041126111340.07716.00001106@mb-m01.aol.com...
> Anyone have an unbuilt elecraft K2 that they would like to dispose of.
> Nick

Place this request on the Elecraft mail reflector. One or 2 pop up every
couple of months.

w9gb

To subscribe or unsubscribe to Elecraft list via the World Wide Web, visit
http://mailman.qth.net/mailman/listinfo/elecraft
or, via email, send a message with subject or body 'help' to
elecraft-request@mailman.qth.net

3866. Re: Tesla Coils

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-27 21:05:54 UTC
From: john jardine <john@jjdesigns.fsnet.co.uk>
Message-ID: <coapu6arj1@newsg1.svr.pol.co.uk>
Source record: 21900

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:coalospqs1@titan.btinternet.com...
> >
> > Anyone know what differentiates a Tesla coil from any other old coil?
> > Is it simply that they all seem to be EHT types or is there some
> > particular quirk concerning the way they're wound? IOW, what sets 'em
> > apart?
> ============================
>
> Paul, I've never seen a Tesla coil or even recollect seeing a photo of
one.
> But I can imagine.
>
> They are a means of generating very high voltages at relatively low radio
> frequencies.
>
> Low radio frequencies to minimise RF radiation losses.
>
> The coil is quite an ordinary, single-layer, solenoid, close-wound or
> relatively close wound in the form of a helix. Grounded at the lower end.
> Open circuit at the top, high-voltage end.
>
> It is coupled to the RF generator via a few turns link winding at the
bottom
> end.
>
> Or the generator may be tapped into the bottom few turns.
>
> The working frequency is that at which the coil is self-resonant with its
> own distributed self-capacitance.
>
> The generator, by virtue of the number of turns on the coil and the number
> of the turns on the link coupling, is impedance-matched to the Q of the
coil
> such that all the generator power is dissipated in the coil's RF
resistance.
> This, of course, corresponds to maximum voltage at the top of the coil.
>
> The situation is identical to a short HF helical antenna without a whip on
> the top, operating say in the 160 or 80 metre band - but without the
> radiation loss.
>
> The radiation loss in the Tesla is low because its operating frequency is
> low. Most of the power being dissipated in the wire resistance.

>
> The theory is very simple. The coil inductance with its self-capacitance
> must resonate at the working frequency. The coil Q must be very high and
> the wire resistance must be low to generate a very high voltage.
>
> Many turns of wire are needed to resonate at LF but the wire diameter must
> be large enough to have a low resistance. Hence the larger the physical
> size of the coil the higher is the attainable voltage.
>
> The few number of turns on the link (or tap) coupling is calculable but is
> better determined by experiment. One will always end up by pruning to
match
> to a particular generator impedance for maximum Tesla voltage.
>
> The coil's inductance is easily calculated from well known formlae. The
> coil's self-capacitance is more complicated. But what is really required
is
> the resonant frequency. Or it can be found by experiment. (Which is what
> Tesla must have done.)
>
> It so happens that my program SOLNOID3 will calculate the isolated
> self-resonant frequency of a solenoidal coil from its dimensions. For
Tesla
> coils dimensions will be in metres and inductances of 10's of
milli-henrys.
>
> The practical design problem is insulation between adjacent coil turns.
And
> of course the driving power. Having never seen one my instinct guides me
> towards a coil length to diameter ratio of 15-to-1.
>
> Have you any intentions of making one?
> ----
> Reg, G4FGQ
>
>

Of course, one must never forget Dr. Spottiswoode's 'Great induction coil';
first exhibited at a meeting of the Royal Institution held 13th of April
1877.
The wound secondary was 0.01inch diameter wire, 280 miles long. Primary was
1/2 mile of 0.1 inch wire, in // with a capacitor of 126 sheets of tin foil.
Powered fron 30 quarts of Grove's battery cells via a steam engine driven
Brass-Ebonite-Platinum interrupter, allowing 700 to 2500 impulses a second.
Generated arcs about 3.5 foot long!.
regards
john

3867. Re: Request: Could Someone Tell Me How To Upload Files ? tnx, 73 Dennis

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-27 21:28:48 UTC
From: drwxr-xr-x <bit-bucket@config.com>
Message-ID: <slrncqhscg.29g4.bit-bucket@shell.config.com>
Source record: 21901

Learn to fish:

http://www.google.com/search?as_q=file+upload+tutorial&num=50&hl=en

Looks like to question has been asked before....

3868. Re: S-Meter Calibration Standards?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-27 22:13:47 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <nsuhq0tsp66hee9v9lqc4n5c7fodrunptm@4ax.com>
Source record: 21902

On Sat, 27 Nov 2004 17:46:11 GMT, "Ralph Mowery"
<rmowery28146@earthlink.net> wrote:

>>
>> defining the proper time-constant for ssb is another problem. My
>> activity has mainly been VHF/UHF cw and ssb, and working a few HF
>> contests on cw. Found that reporting and operational style is somewhat
>> different on HF and VHF. While the normal report on HF is 59 or 599,
>> it varies much more on VHF, and 519 report is not rare on VHF -
>> particularly if the OP has no experience from HF.
>> My favourite report is 559, because it is easy to send using elbug,
>> and it makes some fun, particularly when everybody expects to receive
>> a 599 report, so the opposite OP must make a note in his log that the
>> report wasn't the usual type, and somebody most likely may loose score
>>
>> 73
>> Jan-Martin, LA8AK
>
>Now we are getting to my bands of operating. Instead of the RS(T) type of
>reports grid squares are usually used on VHF. That eliminates the bogus 599
>type of reports and while probably never used it will give a rough check to
>see if you actually copied the call correct as the grids can be compaired to
>the other stations that worked the same call
>.
>

the most used report on this side would be 55A in JO38XC or if you
insist on the QTH-loc it is DS80B
Somebody ask for QRA, and I believe QRA means "name of the station"

J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

3869. Re: Metal film resistors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-28 00:03:38 UTC
From: matt wilson <mwilson2@nospam.bigpond.net.au>
Message-ID: <uB8qd.50708$K7.13908@news-server.bigpond.net.au>
Source record: 21903

"James Bond" <justmereally@hotmail.com> wrote in message
news:co2lm4$c9l$1@titan.btinternet.com...
are metal film resistors wirewound or not? I've been trying to find this one out. Someone who I know says they're not so are suitable for RF but Maplin catalog seems to say they are.

Metal film or metal oxide? There is a big difference. High ohmic values are almost always Oxide types and these are usually the continuous layer type with the occasional 'trim'. Really low value metal film are also a continuous tube or nearly so. It is the upper half of the metal film rage (100R-100k) that is spiral cut & consequently of appreciable inductance. Unfortunately, these are the values that are most needed.

3870. Re: Metal film resistors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-28 00:31:37 UTC
From: John Popelish <jpopelish@rica.net>
Message-ID: <41A91C69.9A57D408@rica.net>
Source record: 21904

matt wilson wrote:
>
> "James Bond" <justmereally@hotmail.com> wrote in message
> news:co2lm4$c9l$1@titan.btinternet.com...
> are metal film resistors wirewound or not? I've been trying to find this one
> out. Someone who I know says they're not so are suitable for RF but Maplin
> catalog seems to say they are.
>
> Metal film or metal oxide? There is a big difference. High ohmic values are
> almost always Oxide types and these are usually the continuous layer type with
> the occasional 'trim'. Really low value metal film are also a continuous tube
> or nearly so. It is the upper half of the metal film rage (100R-100k) that is
> spiral cut & consequently of appreciable inductance. Unfortunately, these are
> the values that are most needed.

I think metal film resistors are made by depositing metal vapor onto
ceramic rods in a vacuum. Then they are attached to metal end caps
with leads and either laser or abrasive engraved to set the final
resistance. Some have only a turn or two, some have more. They are a
lot less inductive than wire wound devices, and the best low
inductance versions have a serpentine pattern engraved in the film, to
keep the inductance very low.
e.g.
http://www.caddock.com/Online_catalog/power/power.html
--
John Popelish

3871. Re: Metal film resistors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-28 01:05:20 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <d09iq0dloia5iavha3mj0iknvjd1b3sfsh@4ax.com>
Source record: 21905

On Sat, 27 Nov 2004 19:31:37 -0500, John Popelish <jpopelish@rica.net>
wrote:
>d the best low
>inductance versions have a serpentine pattern engraved in the film, to
>keep the inductance very low.

Yes, minimal inductance, but doesn't that pattern give rise to more
parasitic capacitance?
--

"What is now proved was once only imagin'd." - William Blake, 1793.

3872. Re: Tesla Coils

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-28 01:12:58 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <fe9iq0plh4nvnhg4lr6kisu77tct9gfgla@4ax.com>
Source record: 21907

On Sat, 27 Nov 2004 19:49:48 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

[snip science]

>Have you any intentions of making one?
>----
>Reg, G4FGQ

Er, well, I ***was*** contemplating it, Reg...
--

"What is now proved was once only imagin'd." - William Blake, 1793.

3873. Re: Metal film resistors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-28 01:18:53 UTC
From: John Popelish <jpopelish@rica.net>
Message-ID: <41A9277D.F5F138FB@rica.net>
Source record: 21906

Paul Burridge wrote:
>
> On Sat, 27 Nov 2004 19:31:37 -0500, John Popelish <jpopelish@rica.net>
> wrote:
> >d the best low
> >inductance versions have a serpentine pattern engraved in the film, to
> >keep the inductance very low.
>
> Yes, minimal inductance, but doesn't that pattern give rise to more
> parasitic capacitance?

Some. More than an inductive pattern? Not much, if any.

--
John Popelish

3874. Re: New Kennedy assassination audio!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-28 07:00:58 UTC
From: Mark Harriss <anotheremail@this.com>
Message-ID: <41a977a8@news.comindico.com.au>
Source record: 21908

canarchy wrote:

> yea right just like that "tasteful"
> episode with Lady Diana.
>
> good enough for the goose

I'm quite fond of my copy of "Drunk divorced floozie"
(The ballad of Diana Spencer) by that American singer
Mojo Nixon.

Mark

3875. Re: Metal film resistors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-28 12:23:04 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cocfv8afo1@titan.btinternet.com>
Source record: 21909

Just a comment.

Even such a thing as a small 1/2-watt resistor has distributed R, L and C.

L and C can be calculated from physical dimensions.

A resistor can be treated as a helically-loaded transmission line in exactly the same way as a helically-loaded antenna. If the frequency is high enough the radiation resistance can be taken into account.

Just calculate the input resistance of the line with a short circuit at the other end and the job is done. The performance of dummy-load resistors can be determined in the same way.

If you (in the plural) are unable to do this then you are unworthy to call yourselves engineers. Whatever happened to your education? ;o)

Reg

3876. Comcast moving to Giganews

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-28 13:55:23 UTC
From: w9gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <eNkqd.408208$wV.165927@attbi_s54>
Source record: 21910

Transition from netnews.comcast.net to the Comcast newsgroups, provided by Giganews. 11/24/2004

After December 31st, all Comcast netnews users will be transitioned to the current Comcast newsgroup service provided by Giganews.
In addition, starting January 1, 2005, we will be doubling the current monthly Giganews download limit to 2 GB (headers will not be included in these new limits).

3877. Re: Transistor needed 2N591

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-28 17:21:18 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <e62kq0h98r1jec5duv9b3vq2f01j5f5ob5@4ax.com>
Source record: 21911

On Sat, 20 Nov 2004 14:36:24 GMT, Al Last <al.last@sbcglobal.net>
wrote:

>Please email me direct if you have any for sale.
>
>
when you mention it, I could need some CK722's, just for my collection
---
J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

3878. Re: Metal film resistors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-28 19:50:19 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <4rakq0t8ljojqq69hngjac4bbolsh9g8vt@4ax.com>
Source record: 21912

On Sun, 28 Nov 2004 12:23:04 +0000 (UTC), "Regosaurus"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>Just a comment.
>
>Even such a thing as a small 1/2-watt resistor has distributed R, L and C.

Indeed.

>L and C can be calculated from physical dimensions.

Only if you have x-ray vision. The package gets in the way.

>A resistor can be treated as a helically-loaded transmission line in exactly
>the same way as a helically-loaded antenna. If the frequency is high enough
>the radiation resistance can be taken into account.
>
>Just calculate the input resistance of the line with a short circuit at the
>other end and the job is done. The performance of dummy-load resistors can
>be determined in the same way.
>
>If you (in the plural) are unable to do this then you are unworthy to call
>yourselves engineers. Whatever happened to your education? ;o)

I've never described myself as an engineer. I'm not one! But if I
wanted to checkout how suitable any given resistor was for a dummy
load, I'd use a network analyser.
--

"What is now proved was once only imagin'd." - William Blake, 1793.

3879. Re: Metal film resistors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-28 20:37:29 UTC
From: averyfineman@aol.com
Message-ID: <20041128153729.05880.00000148@mb-m19.aol.com>
Source record: 21913

In article <cocfv8afo1@titan.btinternet.com>, "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> writes:

>Just a comment.
>
>Even such a thing as a small 1/2-watt resistor has distributed R, L and C.
>
>L and C can be calculated from physical dimensions.
>
>A resistor can be treated as a helically-loaded transmission line in exactly
>the same way as a helically-loaded antenna. If the frequency is high enough
>the radiation resistance can be taken into account.
>
>Just calculate the input resistance of the line with a short circuit at the
>other end and the job is done. The performance of dummy-load resistors can
>be determined in the same way.
>
>If you (in the plural) are unable to do this then you are unworthy to call
>yourselves engineers. Whatever happened to your education? ;o)

Reg, with all due respect, I think most of the newsgroup readers
are HOBBYISTS in radio and electronics, not engineers. I happen
to be both, a design engineer for 4 decades and a hobbyist for over
5 decades of experience.

I'll just say that I disagree with your hypothesis of "helically loaded
transmission line" doesn't quite jibe with the basic question of
trying to model a film resistor. Case in point: I have four 1000
MegOhm IRC resistors having 61 "turns" of what appears to be
carbon film under the clear conformal coating, wound on about a
5/16" diameter, 5 inches long form (substrate material unknown).

For a two-port structure, the series inductance equivalent is only
about an eighth of the apparent inductance based on visual
examination and dimensions of a good conductor made with flat
wire to the same dimensions. To find out what electrons thought
of it, I hooked them up as a reactive voltage divider (analogue to
the capacitive voltage divider common to oscilloscope inputs)
and examined a square wave output versus input. Why such a
gross dissimilarity?

For one thing, the resistance helix is a DISTRIBUTED thing, not a
convenient discrete lump collection. The substrate material is
unknown, maybe something equivalent to light-colored Bakelite?
There's a further complication of the fringing capacity of each of the
61 turns to the adjacent turns or the end caps. The spacing of the

film "turns" is about twice that of the film width. That adds a capacitance component (equivalent to the distributed capacity of a solenoidal-wound inductor). The clear conformal coating may add to the "inductance" loading. Who cares? The one-evening experiment of about four decades ago showed I could make a HV voltage divider for a voltmeter at rather high input resistance up to about 16 KHz, my intent at the time. It worked.

Did I check for higher LF effects? MF? HF? No. Could that be arranged? Yes, with some slight loss of accuracy; R component was rated +/-5% and that would be the baseline for any wideband application, reference point at DC.

I could have gone nuts on the theoretical analysis, spending many nights in rigorous mathematical whatsis to satisfy some school instructor's "theoretical" demands on paper. I took a more practical engineering approach of DIRECT APPLICATION that would resolve the apparent two-port model equivalent. [I'd already learned that electrons, fields, and waves don't obey all human notions of how they work...:-)]

TIME is the most precious commodity we all share...at work as well as in hobbies. That applies to everyday practical engineering where it is quicker, cheaper, and more realistic to MEASURE some unknown rather than go through a school exercise of "analysis" taking hours and hours from First Principles on up...or argue excessively in some newsgroups on the whichness of the what. :-)

Based on some practical experience getting HF through microwave region range electronics to work, I'd have to agree with all those who pooh-pooh all the "deleterious effects of parasitic elements" of components. Those don't appear to be enough to worry about on film resistors on up into VHF. If there's a concern about it, then those concerned should MEASURE it if they can't find data to suit.

LenAnderson@ieee.org

3880. Re: Transistor needed 2N591

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-28 20:37:58 UTC
From: Allodoxaphobia <bit-bucket@config.com>
Message-ID: <slrncqkdp6.1sv.bit-bucket@shell.config.com>
Source record: 21914

On Sun, 28 Nov 2004 18:21:18 +0100, J M Noeding hath writ:
> On Sat, 20 Nov 2004 14:36:24 GMT, Al Last <al.last@sbcglobal.net>
> wrote:
>
>>Please email me direct if you have any for sale.
>>
>>
> when you mention it, I could need some CK722's, just for my collection

http://www.ck722museum.com/index.html

http://users.arczip.com/rmcgarra2/xstr.html

73
Jonesy W3DHJ
--
| Marvin L Jones | jonz | W3DHJ | linux
| Gunnison, Colorado | @ | Jonesy | OS/2 __
| 7,703' -- 2,345m | config.com | DM68mn SK

3881. QTH Quarterly

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-28 21:25:52 UTC
From: drbob92031@aol.com
Message-ID: <20041128162552.00362.00001259@mb-m17.aol.com>
Source record: 21915

Have not received any issues recently. Are they still part of NORCAL?
(Originally they were the N.J Q.T.H.) Any info please.
Bob..WA2EAW

3882. Radio Free Colorado

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-28 22:48:50 UTC
From: Radio Free Colorado <garyburke@boomspeed.com>
Message-ID: <garyburke-AEC6AB.15485028112004@comcast.dca.giganews.com>
Source record: 21916
Cross-posted to: alt.2600.hackers,alt.electronics,alt.pirate.radio,alt.radio.college,alt.radio.pirate,alt.radio.scanner.marketplace,rec.electronics,rec.ham-radio.swap,rec.radio.amateur.homebrew,rec.radio.amateur.swap,rec.radio.scanner,rec.radio.shortwave,rec.radio.swap

Dear Music Lovers,

I was going to buy my own commercial FM radio station and changed my mind. It feels like only rich people can buy radio stations anymore.

So I decided to start "Radio Free Colorado".

Radio Free Colorado's achievement is:

1. We play popular music you don't hear on the radio anymore since "Corporate America" (companies like Caelr lneahnc Mmconusniot) took over control of the radio broadcast industry and companies like nosoo took over control of the music recording/distribution industry. These corporations submit "playlists" to over 90% of the commercial radio stations in the U.S.

A playlist is just that: if a song isn't on the list, it doesn't get played.

2. To play carefully selected, current multi-genre popular music (no "Bratyen" or "Ashell" type artists - ever!) -- but we think Coldplay, Modest Mouse and Norah Jones are just fine.

Radio Free Colorado plays a lot of music you probably haven't heard in such a long time and have since forgotten how much you love. It's such a thrill when a forgotten song comes on and you say "Hey, I love this song" and all your fond memories of it come rushing back to you.

Radio Free Colorado is NOT beholden to anyone. There is no pre-approved "playlist", no one tells us what we can't play. Listeners can, however make song requests and if we have it we will play it.

Radio Free Colorado streams music LIVE over the Internet using a high-fidelity 128 kbps MP3 stream. We use professional and modified sound processing equipment to achieve a sound quality which we believe is superior to virtually all other 128 kbps streams.

Any computer with a DSL, Cable Modem (or faster) Internet connection that has a download speed capacity of at least 128 kbps can tune in.

No streams slower than 128 kbps are available.

Virtually all MP3 music players are capable of receiving live MP3 music streams over the Internet. Any music player compatible with streaming MP3 audio can receive Radio Free Colorado's broadcast.

Our MP3 broadcast stream is compatible with virtually all music software programs and works with PC's running Windows, Apple computers running OS X and other machines running Linux or Unix.

Our "Genre" (what kind of music we play) is VERY diverse. We play Modern/Classic Rock, Progressive Rock, Alternative (Modern and Retro), Pop, Billboard Classics, and Top Radio Hits from the 60's, 70's, 80's and 90's. We also play some Ambient/Instrumentals. No Rap or Hip-Hop, Classical, Jazz or Swing.

Radio Free Colorado is located at the website:

http://www.boomspeed.com/garyburke/radiofreecolorado/Radio_Free_Colorado.html

While you are listening to our stream, you will see the last 10 songs played along with complete information listing the Artist, Album Name and of course the Song Name.

To contact Radio Free Colorado during our broadcast for song suggestions, requests, questions, etc. you may:

1. Use our AIM address: radiofreeco
2. Use our e-mail: garyburke@boomspeed.com

Radio Free Colorado
What Radio Once Was!

3883. Radio Free Association of America

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-28 23:27:19 UTC
From: Radio Free Colorado <garyburke@boomspeed.com>
Message-ID: <BDCFACE7.903%garyburke@boomspeed.com>
Source record: 21917

Dear Music Lovers,

I was going to buy my own commercial FM radio station and changed my mind. It feels like only rich people can buy radio stations anymore.

So I decided to start "Radio Free Colorado".

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1. We play popular music you don't hear on the radio anymore since "Corporate America" (companies like Caelr lneahnc Mmconusniot) took over control of the radio broadcast industry and companies like nosoo took over control of the music recording/distribution industry. These corporations submit "playlists" to over 90% of the commercial radio stations in the U.S.

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While you are listening to our stream, you will see the last 10 songs played along with complete information listing the Artist, Album Name and of course the Song Name.

To contact Radio Free Colorado during our broadcast for song suggestions, requests, questions, etc. you may:

1. Use our AIM address: radiofreeco
2. Use our e-mail: garyburke@boomspeed.com

Radio Free Colorado
What Radio Once Was!

3884. Re: Tesla Coils

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-28 23:44:30 UTC
From: Risto Tiilikainen <risto.tiilikainen@luukku.com>
Message-ID: <41aa6eec$0$13720$8e79b8c8@news.yhteys.mtv3.fi>
Source record: 21920

Can we consider a standard car ignition coil a Tesla coil ? A cheap,
reliable and simple one.
There is primary with capacitor in distributor and secondary with self
resonance of course.
Good high voltage insulation is achieved with coil in oil bath .

Can we consider TV line transformer a Tesla coil or purely a transformer ?
It is produced to resonate in selected line frequency

I wonder how is normal neon light high tension generated.
Do they use some kind simple tesla coil system to ionize the rare cas inside
the glastubing or are they using choke like normal fluorescent tubes.
In any case neon lights seem to be safe for public with very simple
construction.
Safety protection with fluorescent lights is much and more complicated and
failsafe.

New questions made Risto; OH2BT

3885. Re: Metal film resistors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-28 23:54:53 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <codogd$9pr$1@hercules.btinternet.com>
Source record: 21918

```
> But if I
> wanted to checkout how suitable any given resistor was for a dummy
> load, I'd use a network analyser.
> --
================================

If the network analyser is a computer program you'll still need X-ray eyes.
```

3886. Re: Metal film resistors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-29 00:31:24 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <codqkr$d6v$1@hercules.btinternet.com>
Source record: 21919

Avery, I too have had a similar career to yours. I cannot but agree with all that you say. A very apt description.

Regarding newsgroups - "Abandon all rank ye who enter here." (Toc-H, on the Western Front, 1916.)

To summarise -

To find what a resistor does , measure it.

If you are unable to measure it then model it with lumped components and then calculate.

If lumps are not accurate enough then model it as a distributed transmission line, which it actually is, and calculate again.

If you get similar answers for both procedures then you are laughing.

If you don't know how to do these things then you are not qualified to call yourself an engineer which I'll admit is slightly off-topic. But if the cap fits then wear it!

Regards, Reg.

3887. Attention QRP QRP QRP

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-29 01:06:22 UTC
From: Brian - KB9BVN <kb9bvn@arrl.net>
Message-ID: <iCuqd.2880$u81.2522@newsread3.news.pas.earthlink.net>
Source record: 21921

A neat new web based QRP Bulletin Board is now available on the WWW.

http://ke9v.net/qrpbb/

If you are into QRP, this is a great place for contest info, kits building
tips, QRP Club data, and all kinds of stuff.

It's FREE. No dues, and nothing to buy.

It's a QRP Bulletin Board operated by hams that just love QRP.

Give it a look!

73 de KB9BVN

--
==
Agnus Dei, qui tollis peccata mundi, dona nobis pacem.
==
KB9BVN/QRP QRP-L 1540 QRP-ARCI 10223
39.558 N 86.095 W Johnson Co., Indiana
GRID: EM69WN - Elecraft K1 - Attic Dipole - 5w
Member of the ARRL - SOC #400
FISTS 5695 CC 764 FPQRP #-57
==

3888. Re: Tesla Coils

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-29 01:45:56 UTC
From: default <none@defaulter.net>
Message-ID: <vvtkq0p7v29pqr3ldch5s564apvjsv63r7@4ax.com>
Source record: 21922

On Mon, 29 Nov 2004 01:44:30 +0200, "Risto Tiilikainen"
<risto.tiilikainen@luukku.com> wrote:

>Can we consider a standard car ignition coil a Tesla coil ? A cheap,
>reliable and simple one.
>There is primary with capacitor in distributor and secondary with self
>resonance of course.
>Good high voltage insulation is achieved with coil in oil bath .

A car ignition coil isn't tuned primary to secondary - Frequency is
much lower than all but the largest tesla coils. Most Tesla coils are
air-core transformers. Induction coils seldom put out the voltage of
tesla coils. A moderate TC can output 100,000 volts compared to
20,000 for a car ignition coil. 250,000 volts isn't hard to get out
of a TC.

>
>Can we consider TV line transformer a Tesla coil or purely a transformer ?
>It is produced to resonate in selected line frequency
>
Flyback transformers have some of the characteristics of TC's, but
usually much lower voltage, and their frequency is lower. I don't
believe they are resonant - but don't know for a fact. Secondary
isn't series resonant. A color CRT may go up to 50,000 volts.

>I wonder how is normal neon light high tension generated.

They used to use current limited (magnetic shunt) line frequency
transformers that relied on turns ratio to step up the voltage. Most
of them still do use this type of transformer. When the gas in the
tube ionizes the current limiting of the transformer protects the
transformer.

>Do they use some kind simple tesla coil system to ionize the rare cas inside
>the glastubing or are they using choke like normal fluorescent tubes.

The more modern neon sign systems do use high frequency/ high voltage
generators because they are cheaper, smaller, lighter, and safer.

>In any case neon lights seem to be safe for public with very simple
>construction.

Neon signs and neon sign transformers aren't all that safe. Many are
current limited below the ~100 ma necessary to kill (but 100 ma is
just a number; they didn't arrive at it empirically . . .) Look at
the controversy surrounding taser weapons - much lower average current
and power than a NST.

>Safety protection with fluorescent lights is much and more complicated and
>failsafe.

The ordinary magnetic ballast fluorescent lamps have the usual line
voltage hazards. I wouldn't consider them any safer than incandescent
lamps.

High frequency fluorescent lamps may be somewhat better - but the one
I just took apart does not have line voltage isolation. Looks like
they just rectify the AC line than chop it at a high frequency and use
a small choke to limit current.

Fail safe? How do you figure?
>
>New questions made Risto; OH2BT
>

3889. WTB: mic gain control for Collins 32S3 transmitter

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-29 02:17:44 UTC
From: k9sqg@aol.com
Message-ID: <20041128211744.11425.00001205@mb-m29.aol.com>
Source record: 21923

Thanks for reading this posting. I'm looking for hens teeth in the form of the mic gain pot for the 32S3 transmitter. It is a dual section pot with 500 K on one section and 2500 ohms on the other. The switch is closed when fully CCW, not open like most switches. I've already taken out a second mortgage in the event I can find one of these...

73s,

Evan

3890. Re: QTH Quarterly

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-29 03:24:56 UTC
From: Brian - KB9BVN <kb9bvn@arrl.net>
Message-ID: <cEwqd.3033$u81.41@newsread3.news.pas.earthlink.net>
Source record: 21924

Are you talking about the QRPp magazine and the Homebrewer Magazine?

QRPp was the old Norcal quarterly and Homebrewer was the old NJ QRP Club Quarterly.

They merged with a few other clubs to form the AmQRP Club.

You can learn more about the AmQRP group from http://www.amqrp.org

Norcal has supposedly split away from the AmQRP and has their own website but I think AmQRP is still selling the NORCAL kits. I know Doug Hendricks left AmQRP last month I think. (http://www.norcalqrp.org)

I THINK originally, if you had a sub to QRPp and/or Homebrewer you were given the same number of issues to the new replacement quarterly the AmQRP Homebrewer but don't hold me to that.

I think George Heron N2APB is in charge of the magazine, but not 100% sure about that now.

AmQRP Homebrewer has sent out a total of three issues of their magazine since the club formed late in the summer of 2003. They currently have #4 ready to ship according to the website, but it was supposed to be in our hands in early November....about 3 months late...but we still don't have it. It's now missed two or maybe three promise dates already.

The website is still up, and they put out a message near the end of October or first part of November saying they were goin gto be making some big changes and things would be a lot better soon.

I think most QRPers are like me, and taking a "we'll wait and see what happens next" kind of stand.

The three issues of the AmQRP Homebrewer we got, were very good magazines. I don't know what the hold up is now.

73 de KB9BVN

"Drbob92031" <drbob92031@aol.com> wrote in message
news:20041128162552.00362.00001259@mb-m17.aol.com...
> Have not received any issues recently. Are they still part of NORCAL?
> (Originally they were the N.J Q.T.H.) Any info please.
> Bob..WA2EAW

3891. Re: QTH Quarterly

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-29 13:27:49 UTC
From: xpyttl <xpyttl_NOSPAM@earthling.net>
Message-ID: <4AFqd.82$Gc2.12@fe04.lga>
Source record: 21927

"Brian - KB9BVN" <kb9bvn@arrl.net> wrote in message
news:cEwqd.3033$u81.41@newsread3.news.pas.earthlink.net...

> Norcal has supposedly split away from the AmQRP and has their own website
> but I think AmQRP is still selling the NORCAL kits. I know Doug Hendricks
> left AmQRP last month I think. (http://www.norcalqrp.org)

Evidently, not completely spit away, but an associated club like the ScQRPions and NoGa. But no longer a partner like NJQRP. I can't say I really know what that means, but I think the main thing is that NorCal will be doing their own kits.

> I think George Heron N2APB is in charge of the magazine, but not 100% sure
> about that now.

yep

> I don't know what the hold up is now.

I'm guessing that they are basically out of gas. George seems to do about 99% of the work, and he seems to have a really heavy-duty day job. I could be reading the signs wrong but I get the impression that every now and then his employer gets on an acquisition binge and he ends up flying all over the planet. Sorta tough getting the mag out when you are sitting in an airport in Thailand.

A few months ago they had 5 or 6 kits that simultaneously got very popular. Assembling all those kits pretty well fried the volunteers. I think some of it is simply recovering from that, and learning to be a little more disciplined in retiring kits.

I get the distinct impression there is some politics getting in the way, too. But I can't say that for sure since I make it a point to avoid that sort of thing. This is one of those areas where ignorance really is bliss.

..

3892. Re: Metal film resistors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-29 13:40:16 UTC
From: Pete D <n2mci@hvc.rr.com>
Message-ID: <4FFqd.32808$Vk6.21697@twister.nyc.rr.com>
Source record: 21925

I've used these as a dummy load and they work
fine even at 440mhz..
http://www.ohmite.com/catalog/pdf/tah_tch_series.pdf
Mouser sells them..
http://www.mouser.com/catalog/620/415.pdf

Hope this answers your question..

-Pete

James Bond wrote:
> are metal film resistors wirewound or not? I've been trying to find this one
> out. Someone who I know says they're not so are suitable for RF but Maplin
> catalog seems to say they are.
>
>
> someone please help!
>
> dr. x
>
>

3893. CORRECTION OF EARLIER POST (Q.T.H. POSTING)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-29 13:42:15 UTC
From: drbob92031@aol.com
Message-ID: <20041129084215.11861.00001146@mb-m16.aol.com>
Source record: 21926

Q.T.H. SHOULD READ Q. R. P.
SORRY,
Bob, wa2eaw

3894. Re: DSP in receiving systems

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-29 15:04:00 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20041129100400.06291.00000816@mb-m26.aol.com>
Source record: 21928

>
>What artifacts does latency in a DSP implementation cause?
>
>I'm thinking of eg a "DSP rcvr" OOH and an "analog receiver" OTOH, both
>tuned to WWV, and the noticeable delay of the DSP audio from the analog
>audio. You know, ti-tick ti-tick instead of tick-tick-tick, and "blurred"
>voice announcements.

Seems that it is starting to play role in QSK and contesting. Latest TenTec Orion seems to be having problem with QSK above 40 wpm.

The other effect is some loss of inteligibility on weak signals. My friend OK2RZ who started to use TS870 immediately complained about the inteligibility as compared to straight analog RX. Audio sounded mushy to him, more difficult to copy weak signals in the noise. To me it was a surprise, but he is appliance operator with good ears and when he compared two types of rigs, he pointed out to mushiness of 870 (esp. weak) signals.

We are considering this in the design of Dream Radio One, where heavy computer, DSP and analog hybrid is coming to play.

Looks like DSP is here to stay, has some advantages, but will need some fine tuning (no problem, digital stuff, right?).

Yuri, www.K3BU.us
www.computeradio.us

3895. Re: Metal film resistors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-29 17:40:45 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <onnmq0170i9ttildg3lgdaji01hcbf2ihs@4ax.com>
Source record: 21929

On Mon, 29 Nov 2004 13:40:16 GMT, Pete D <n2mci@hvc.rr.com> wrote:

>I've used these as a dummy load and they work
>fine even at 440mhz..
>http://www.ohmite.com/catalog/pdf/tah_tch_series.pdf

I notice they say "very low inductance" but it would be nice to have a
figure!!!
--

"What is now proved was once only imagin'd." - William Blake, 1793.

3896. Re: S-Meter Calibration Standards?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-29 17:49:26 UTC
From: Rick Karlquist N6RK <richard@karlquist.removethis.com>
Message-ID: <GiJqd.415703$wV.219488@attbi_s54>
Source record: 21930

http://www.n6rk.com/S_unit_definitions.doc

"Avery Fineman" <averyfineman@aol.com> wrote in message
news:20041125230522.06525.00000141@mb-m24.aol.com...
> Is there a standard RF input level per "S" Unit?
>
> If so, please post the location. Thanks.
>
> LenAnderson@ieee.org

3897. Re: DSP in receiving systems

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-29 19:10:29 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10qmt0sgpmbep4f@corp.supernews.com>
Source record: 21931

Yuri Blanarovich wrote:

>>What artifacts does latency in a DSP implementation cause?
>>
>>I'm thinking of eg a "DSP rcvr" OOH and an "analog receiver" OTOH, both
>>tuned to WWV, and the noticeable delay of the DSP audio from the analog
>>audio. You know, ti-tick ti-tick instead of tick-tick-tick, and "blurred"
>>voice announcements.
>
>
> Seems that it is starting to play role in QSK and contesting. Latest TenTec
> Orion seems to be having problem with QSK above 40 wpm.
>
> The other effect is some loss of inteligibility on weak signals. My friend
> OK2RZ who started to use TS870 immediately complained about the inteligibility
> as compared to straight analog RX. Audio sounded mushy to him, more difficult
> to copy weak signals in the noise. To me it was a surprise, but he is appliance
> operator with good ears and when he compared two types of rigs, he pointed out
> to mushiness of 870 (esp. weak) signals.
>
> We are considering this in the design of Dream Radio One, where heavy computer,
> DSP and analog hybrid is coming to play.
>
> Looks like DSP is here to stay, has some advantages, but will need some fine
> tuning (no problem, digital stuff, right?).
>
> Yuri, www.K3BU.us
> www.computeradio.us
>
The "mushiness" sounds like the ADC or DSP data paths aren't deep
enough, so the weak signal is getting lost in quantization noise.
That's unfortunate, so make sure that your "dream radio" has plenty of
"footroom".

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

3898. Second HAND Shop

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-29 21:21:29 UTC
From: Umrana Mozley <u.mozley@ntlworld.com>
Message-ID: <tpMqd.1626$4z2.1294@newsfe2-win.ntli.net>
Source record: 21932

```
Second Hand Shop @ http://selectionbox59.com
with shopping Cart,
Deliver International.
```

3899. Second Hand Shop @ http://selectionbox59.com

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-29 21:45:28 UTC
From: Umrana Mozley <u.mozley@ntlworld.com>
Message-ID: <YLMqd.1707$4z2.1229@newsfe2-win.ntli.net>
Source record: 21933
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

Second Hand Shop @ http://selectionbox59.com
with shopping Cart,
Deliver International.

3900. Re: Metal film resistors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-30 01:17:19 UTC
From: Joel Kolstad <JKolstad71HatesSpam@Yahoo.Com>
Message-ID: <tcKdnZ1yFJecVzbcRVn-2g@comcast.com>
Source record: 21934

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:codqkr$d6v$1@hercules.btinternet.com...
> If lumps are not accurate enough then model it as a distributed
> transmission
> line, which it actually is, and calculate again.
>
> If you don't know how to do these things then you are not qualified to
> call
> yourself an engineer which I'll admit is slightly off-topic.

Well, Reg, equivalent circuit modelling is not a common topic taught in colleges, _especially_ in an undergraduate curriculum, and there are one heck of a lot of EE's out there who work for companies that don't even _have- the facilities (a network analyzer) to properly measure what their resistor does... yet plenty of them are fine engineers.

Electrical engineering is quite broad these days. There are guys who sit around designing communication systems who never touch soldering irons, and I'm sure plenty of them would claim you're not qualified to be an engineer because you can't derive some 'trivial' convolutional code off the top of your head.

BTW, many SPICE simulators do a mediocre job of simulating lossy transmission lines. Most people who are going to be using components at frequencies where they care about distributed parasitics are probably (hopefully) using frequency domain simulators anyway, but that too is an area where today's undergraduate curriculum tends to be somewhere beween weak and non-existant. (Using simulators other than SPICE... e.g., harmonic balancers, periodic steady staters, linear frequency sims, etc.)

---Joel

3901. Re: QTH Quarterly

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-30 02:04:13 UTC
From: w9gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <wyQqd.120099$5K2.6366@attbi_s03>
Source record: 21935

"Brian - KB9BVN" <kb9bvn@arrl.net> wrote in message
news:cEwqd.3033$u81.41@newsread3.news.pas.earthlink.net...
> Are you talking about the QRPp magazine and the Homebrewer Magazine?
>
> QRPp was the old Norcal quarterly and Homebrewer was the old NJ QRP Club
> Quarterly.
>
> They merged with a few other clubs to form the AmQRP Club.
>
> You can learn more about the AmQRP group from http://www.amqrp.org
>
> Norcal has supposedly split away from the AmQRP and has their own website
> but I think AmQRP is still selling the NORCAL kits. I know Doug Hendricks
> left AmQRP last month I think. (http://www.norcalqrp.org)
>
> I THINK originally, if you had a sub to QRPp and/or Homebrewer you were
> given the same number of issues to the new replacement quarterly the AmQRP
> Homebrewer but don't hold me to that.
>

Yes, this is true ... I was a NorCal member when the merger occurred. The
passing of Jim Cates, WA6GER in April (co-founder of NorCal) was indeed a
sad moment. Jim invited me to attend one of the NorCal meetings (California
Burger in Pleasanton) .... 3 years ago during a California business trip.

November meeting
http://www.norcalqrp.org/mtg2004_11.htm

w9gb

3902. Re: DSP in receiving systems

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-30 06:49:52 UTC
From: AaronJ <noemail@noemail.com>
Message-ID: <th4oq05mukr0re6cgo7qtts208ce0v3674@4ax.com>
Source record: 21936

k3bu@aol.comNoUsama (Yuri Blanarovich) wrote:
>The other effect is some loss of inteligibility on weak signals. My friend
>OK2RZ who started to use TS870 immediately complained about the inteligibility
>as compared to straight analog RX.

I would guess your friend is complaining about the TS870 DSP when used in the phone modes. I don't use the phone modes, but have tried it there and would agree it seems to make little improvement. However I do use the TS870 exclusively on CW and can say that the DSP is extremely effective in that mode. To the ear it makes a 559 signal sound like a 599 signal, and a difficult in the mud weak signal reasonably copyable. The background noise is really reduced and cuts way down on operator fatigue. The bad part is that the CW note is messed up somewhat (but still easily copyable) and at speeds faster than around 35 WPM it can not keep up and runs the notes together ruining copy. But in my situation using a low stealth loop antenna in close proximity with computer, cable, AC lines ect, the TS870's DSP is a lifesaver.

3903. Re: Attention QRP QRP QRP

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-30 10:30:51 UTC
From: canarchy13@hotmail.com
Message-ID: <cohi57jcr1@newsg1.svr.pol.co.uk>
Source record: 21937

hope its a bit easier going then the UK group.
proper stuck up they are.

what does one except, its run from church by a bunch of god bothers.

3904. Who has got any experience with InfoRelation and can advice me.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-30 12:31:27 UTC
From: inforelation4@yahoo.com
Message-ID: <6a70aadd.0411300431.2dc4efbf@posting.google.com>
Source record: 21938

Hallo anybody!

I am a journalist and I am writting an article about a new, interesting, rapidly growing webservices. Now I am collecting the information about InfoRelation.com .
I have found that InfoRelation was mentionned in this forum. So I would like to ask you to send me your opinion about the InfoRelation.com service
and its offer: the process of connecting demand and suply for knowledge, skills etc.

I will be grateful for any opinion (also about the problems with InfoRelation, InfoRelation's competitors etc.)!

Best regards,
Tim Kelly
PS. If there is anybody who earned any money on InfoRelation - please describe me the field of interest in case of which the earning has been arrived at.

3905. Wireless World magazine

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-30 13:57:13 UTC
From: Adri <tncdrn@tin.it>
Message-ID: <F__qd.19476$C94.3124@tornado.fastwebnet.it>
Source record: 21939

interested in having a scan of the WW article :
M L Christieson September 1988, p866
FM quadrature IC (CA3089) works as a p.l.l. detector.
Would gladly trade the favour with any later article (1989 - nowadays) of
the same magazine

3906. From My House To Your House

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-30 20:03:48 UTC
From: nedrog@aol.comNOSPAM
Message-ID: <20041130150348.21488.00000225@mb-m11.aol.com>
Source record: 21940

QTY DESCRIPTION

1 60 FT ROHN 25g TOWER w/pointed top section

1 ROHN 25g BASE PLATE
1 ROHN 25g, HB25CS, HOUSE BRAKET
1 Icom 551 6m all mode transceiver (works)
1 Icom 211 2m all mode transceiver (works)
1 Heathkit SB200 Amplifier (220v)
1 Ham M Rotator (cked by Norm)
1 Tail-twister Rotator (cked by Norm)
1 Cushcraft R7000 Vertical (40-6)
1 Cushcraft 80m kit for R7000 (never assembled)
1 LJE GP1, RADIAL PLATE FOR 2" MAST, 24 RADIALS
1 Minkota, mdl: 765 MX, 12v remote trolling Motor
(needs new prop)
1 18" Golden Rule for tournament fishing
1pr Replacement 8" Steel Wheels w/rubber tires each wheel will

support up to 60lbs, good for hand truck, etc,
3ea ADULT MDL: KA1, KAPOK BUOYANT VEST, (never in
water), LIFE JACKETS.
1 Micronta FS/SWR Meter
1 B&W Dipole Connector [V shape]
1 Bag of various (approximately 10) Xtals, FT243
variety, HAM band frequencies.
1 3/8x24, Spring mount with 2 springs,
11ea Aluminum panels of sorts, 6"x12"x1/8"
3ea Packages of NICE-DUCT, brown color, 3/8"Hx5/8"Wx60"L, each
package has 5 pc totaling 25 feet.
1 12v WHINCH
2ea 50FT ROLLS OF RG6, 75 OHM COAX WITH "F" CONNECTORS
1 25FT ROLL OF RG6, 75 OHM WITH CONNECTORS
1 CUSHCRAFT BASE RING FOR 10M RINGO
1 SHAKESPEAR FIBERGLASS, 144-174Mhz ANT (MOUNTS ON
AUT0 OR TRK)
1 QUADSTAR 2M HALO
1 Motorola, MITREK, MDL: T81JJA4900BK, WITH CONTROL &
POWER CABLE - NO CONTROL BOX, NO MIC OR BOOK (AS
IS NOT TESTED)
1 Radio Shack, 8", Antenna Mast Wall Mounting BKT
1 Motorola, MICOR, mdl: 02033a, WITH BOTH CONTROL CABLE

& CONTROL HEAD AND POWER CORD (NO MIC OR BOOK)
(AS IS NOT TESTED)

1 AMPEX 8" REEL TO REEL TAPE RECORDER
1 INTERMATIC TIME CLOCK, 110v
1 SCHUMACHER 10/30/50, BATTERY CHARGER, 12v
1 CROUSE-HINDS 3 LAMP, (RED/YELLOW/GREEN), TRAFFIC
SIGNAL - ANTIQUE - WORKS GREAT!
1 AIPHONE AH108, 10W, 8 OHM, HORN SPKR.
43ea INNOVATIVE SIMPLICITY, MDL: CREST, 2-JACK WALL
PLATES WITH THE JACKS FOR TELCO
2ea SMALL PEDESTAL CAMERA MOUNTS
8ea GARDEN HOSE WALL BRACKETS

I am in Montgomery County, Maryland, and would perfer not to have to ship, but
if I do - please figure postage from 20895.

73's

Howard W3CQH

3907. Re: Metal film resistors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-30 20:37:57 UTC
From: snarflemike@yahoo.com
Message-ID: <20619edc.0411301237.509a4e94@posting.google.com>
Source record: 21941

Duncan Munro <postmaster@duncanamps.com> wrote in message
news:<emj8u1rfglqe.zw8r9t4h0rqw$.dlg@40tude.net>...

> The metal film 33R measures 6.5uH and the oxide 22R measures 4.5uH on the
> aade.com meter. Both values (if the readings are correct) would represent
> a high ratio of X to R at HF frequencies...

I wonder, though, if the AADE meter is not getting confused by the
resistance of the resistor. The fact that the measured inductance is
just about proportional to the resistance might be evidence for that.

73,
Mike, KK6GM

3908. Re: Metal film resistors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-30 21:04:28 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <hQ$zWkBcBOrBFASo@ifwtech.co.uk>
Source record: 21942

Mike Silva wrote:
>Duncan Munro <postmaster@duncanamps.com> wrote in message
>news:<emj8u1rfglqe.zw8r9t4h0rqw$.dlg@40tude.net>...
>
>> The metal film 33R measures 6.5uH and the oxide 22R measures 4.5uH on the
>> aade.com meter. Both values (if the readings are correct) would represent
>> a high ratio of X to R at HF frequencies...
>
>I wonder, though, if the AADE meter is not getting confused by the
>resistance of the resistor. The fact that the measured inductance is
>just about proportional to the resistance might be evidence for that.

Duncan has kindly sent a couple of samples, with duplicates that have had the paint scraped off. I just arrived home from a few days away, so haven't had time to measure them yet.

Each one is only an open spiral of about two turns along the whole length of the 3W resistor body, so you can see immediately that there's no way the inductance can actually be more than a few hundred nH.

This actual, physical inductance is in *series* with the resistance. What seems to be happening is that the AADE meter displays the resistance and reactance in their equivalent parallel form, which is a function of the measurement frequency (which varies, but is understood to be in the order of a few MHz).

Guessing a frequency and then doing the parallel -> series transformation on 22 ohms in parallel with 4.5uH produces results in the right ballpark: R is still around 22 ohms but the *series* inductance is 100-200nH.

I will try to measure the resistors tomorrow.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

3909. Re: Metal film resistors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-11-30 23:48:32 UTC
From: Duncan Munro <postmaster@duncanamps.com>
Message-ID: <1tbfqjj6udrd3.whc0cyyho03n.dlg@40tude.net>
Source record: 21943

On 30 Nov 2004 12:37:57 -0800, Mike Silva wrote:

> Duncan Munro <postmaster@duncanamps.com> wrote in message
news:<emj8u1rfglqe.zw8r9t4h0rqw$.dlg@40tude.net>...
>
>> The metal film 33R measures 6.5uH and the oxide 22R measures 4.5uH on the
>> aade.com meter. Both values (if the readings are correct) would represent
>> a high ratio of X to R at HF frequencies...
>
> I wonder, though, if the AADE meter is not getting confused by the
> resistance of the resistor. The fact that the measured inductance is
> just about proportional to the resistance might be evidence for that.

Mike, I think you've hit the nail on the head. To be fair to AADE, they warn that the 'Q' of the inductor has to be reasonable to get a sensible measurement.

The kind of measurement frequencies we are talking about are in the order of 700kHz. At that frequency, the inductance of the 'indicated' 4.5uH is 19.8 ohms, not a million miles from the 22 ohms of the resistor itself - this is not what I would call a reasonable 'Q' value. Fair play to AADE, it's designed to measure the inductance of inductors, not other components ;-)

--
Duncan Munro
http://www.duncanamps.com/

3910. Re: Metal film resistors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-01 00:07:36 UTC
From: Duncan Munro <postmaster@duncanamps.com>
Message-ID: <1lh6c4ouuedtm.12tii8jkvw6cs.dlg@40tude.net>
Source record: 21944

On Tue, 30 Nov 2004 21:04:28 +0000, Ian White, G3SEK wrote:

> Guessing a frequency and then doing the parallel -> series
> transformation on 22 ohms in parallel with 4.5uH produces results in the
> right ballpark: R is still around 22 ohms but the *series* inductance is
> 100-200nH.

There is an additional complication in that there is another inductor in
the box itself of 680uH, LX (or should I say RX) is in series with that.
It's late now, but I will try and work out what's going on tomorrow night.

> I will try to measure the resistors tomorrow.

If you get the opportunity, it would be much appreciated.

--
Duncan Munro
http://www.duncanamps.com/

3911. Re: Looking for roller inductors

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-01 00:43:19 UTC
From: Highland Ham <abcgm0csz.kn6whxyz@abcntlworldxyz.com>
Message-ID: <Hs8rd.140$1Q1.32@newsfe2-win.ntli.net>
Source record: 21946

> Is this kind of inductors still for sale or still build ? I would like to
> buy two identical roller inductors of about 20 to 30 µH for an antenna
> tuner. Does somebody know where I can buy them. In the US or in Europe, no
> matter.
> 73 de ON5MJ - Jacques.
==========

These roller inductors can often be found at ham flea markets . Residing in Belgium you might have an opportunity to visit some of the many flea markets in the Netherlands . There is a really big one in March every year at Rosmalen near 's Hertogenbosch. Another one is the open air ham flea market at the 'Lichtmis' trucker's stop between Zwolle and Meppel (last Saturday of September).
I have seen roller inductors for sale at any ham flea market in NL ,also new ones .

Good Luck

Frank GM0CSZ / KN6WH

3912. Re: Looking for roller inductors

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-01 00:43:20 UTC
From: Highland Ham <abcgm0csz.kn6whxyz@abcntlworldxyz.com>
Message-ID: <ls8rd.141$1Q1.59@newsfe2-win.ntli.net>
Source record: 21945

> An old-timer I used to know made his own from plastic drain pipe. He used
a
> lathe for cutting a spiral grove in the pipe for the wire, and machined
most
> of the other parts himself.
==========
Before using drain pipe check it for RF integrity in the microwave oven. The
grey stuff seems to have metal containing pigment.
The white stuff might be better .....suggest you always check.

Another possibility might be a polystyrene cylinder in the shape of a liquid
volume measuring gauge as used by photographers in the dark room .
I have such a gauge made by JOBO - Germany , volume 500 milli-litre
,diameter 65 mm (approx 2.6 inch), length 200 mm (8 inch).

Frank GM0CSZ / KN6WH

3913. Re: Looking for roller inductors

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-01 00:43:21 UTC
From: Highland Ham <abcgm0csz.kn6whxyz@abcntlworldxyz.com>
Message-ID: <Js8rd.142$1Q1.132@newsfe2-win.ntli.net>
Source record: 21947

> To do this I would use a 'blast from the past', a variometer.
> This consists of two coils, one fixed and one rotating inside
> the fixed coil. If both are the same inductance (so the outer
> one is would with wider spacing than the inner) when they are
> in "series aiding" the total inductance will be the sum, plus
> the mutal inductance. When they are series opposing, the total
> inductance will approace zero. (over simplifcation).
> Variometers have NO moving contacts so they are easier to build
> than rotary coils. They can't be made as large in inductance
> without avoiding other problems (large distributed capacitance),
> but a small variometer in series with a multitapped coil is a
> good compromise.
==========
Don't know the US situation ,but in Europe the marine 2 MHz band (in
particular 2182 kHz emergency channel) is no longer used, with most ships
now having satellite comms.
All that redundent equipment is now being dumped or made available via the
surplus trade . They all have variometers. However these variometers are
probably only usable up to 10 MHz.
Recently I was given a low power life boat emergency transceiver made by
SKANTI (Danemark) for operation on 2182 and 8863 ? khz ,fitted in a water
proof enclosure .....beautiful components including a variometer.
Skanti also made the wellknown Sailor marine radio (painted green).

Frank GM0CSZ / KN6WH

3914. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-01 00:43:22 UTC
From: Highland Ham <abcgm0csz.kn6whxyz@abcntlworldxyz.com>
Message-ID: <Ks8rd.144$1Q1.100@newsfe2-win.ntli.net>
Source record: 21799
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

> >Multiply your voltage by your
> >current instant by instant, take the average (gives you power) and
> >multiply that by the duration in hours and you have your consumption.
>
> They don't bill me instant-by-instant; they bill me for the power they
> claim I've used over the course of a three-monthly period. Since power
> is the product of voltage and current (and I've proved earlier that
> both are zero)
==========
As commented before in this thread you are billed for 'energy' NOT power.

Frank GM0CSZ / KN6WH

3915. Re: Looking for roller inductors

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-01 00:43:22 UTC
From: Highland Ham <abcgm0csz.kn6whxyz@abcntlworldxyz.com>
Message-ID: <Ks8rd.143$1Q1.78@newsfe2-win.ntli.net>
Source record: 21801

> In my case I can't have a look into the tuner or handle alligator clips as
> the tuner must be remotable and outdoors. The shack will be soon located
in
> the cellar and it will not be possible to pass the ladder line through the
> house. A coax would be rather acceptable indoors. So I am looking for a
good
> solution for the inductors: roller inductors, tapped inductors, tapped
> inductors with small variable serie capacitors. Driven by servos or
stepper
> motors. Maybe I don't need a fine tuning of the inductors because of the
> main variable capacitor could be enough.
==========
Provided there is not too much metal around you can readily pass a balanced
feeder 75 -300 or 450 Ohms ribbon through the house.
I use a 'Doublet' 2x 21 metres with a balanced 450 Ohms ribbon feeder
running into and over the loft and so into the ground floor shack with a
balanced to unbalanced matching unit in the shack next to the transceiver .
No RF(I) problems ! Max RF power 100W-PEP

Frank GM0CSZ / KN6WH

3916. Re: E. F. Johnson Rotary Inductor 226-3

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-01 00:43:24 UTC
From: Highland Ham <abcgm0csz.kn6whxyz@abcntlworldxyz.com>
Message-ID: <Ms8rd.145$1Q1.29@newsfe2-win.ntli.net>
Source record: 21798

> This unit is rated at 13.5 uh.
> Does anyone have the per turn inductance for this unit? Approximately
> 2/3 of it is close wound, and one third is wide spaced.
==========
If you don't have a MFJ-259B antenna analyser (also capable of measuring
inductance at actual freq in range 1.8 -174 MHz)
,you might be able to borrow one from a local fellow ham.
It's an excellent instrument for such a purpose. It enables you to make a
graph at every turn at the desired frequencies
The wider spaced turns are probably used for 'tuning ' the higher
frequencies where the capacitance between the turns becomes a significant
factor.

Frank GM0CSZ / KN6WH

3917. Re: S-Meter Calibration Standards?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-01 00:43:25 UTC
From: Highland Ham <abcgm0csz.kn6whxyz@abcntlworldxyz.com>
Message-ID: <Ns8rd.146$1Q1.135@newsfe2-win.ntli.net>
Source record: 21800

> Now we are getting to my bands of operating. Instead of the RS(T) type of
> reports grid squares are usually used on VHF. That eliminates the bogus
599
> type of reports and while probably never used it will give a rough check
to
> see if you actually copied the call correct as the grids can be compaired
to
> the other stations that worked the same call
==========
You are riding my hobby horse.
I find the obligatory 599 or 59 report absolute nonsense , if not stupid ,
especially in connection with contests ,because it does not provide 'any
information' . Instead one could be required (also on HF) to report the
IARU locator like for example IO87AT followed by a serial number.
However this would no doubt cause havoc among the 'mega-scorers' since it
would be much harder to copy instead of the fixed 599 or 59 , resulting
in a lower score. Although a computer database could link a callsign to
the IARU locator ,this would be more difficult, if not impossible,during a
field day or similar event.

Frank GM0CSZ / KN6WH

3918. Re: S-Meter Calibration Standards?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-01 00:43:26 UTC
From: Highland Ham <abcgm0csz.kn6whxyz@abcntlworldxyz.com>
Message-ID: <Os8rd.147$1Q1.84@newsfe2-win.ntli.net>
Source record: 21802

> There has been a de-facto HF standard for 60 years.
> The USA military first used it in specifications of radio equipment when
> placing contracts with manufacturers around the end of WW2. There may have
> been some restrictions on publicity at the time.
> The Standard is 6 dB per S-unit and 50 micro-volts into 50 ohms at S=9.
==========
I have read somewhere that it was Art Collins , of Collins Radio fame ,who
first mooted/established the above standard for up to 30 MHz. Much later
,among radio amateurs, the S9 signal level for freqs above 30 MHz was set
at 5 microvolts into 50 Ohms .

Frank GM0CSZ / KN6WH

3919. Re: Looking for roller inductors

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-01 01:41:27 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <coj7g7pue1@titan.btinternet.com>
Source record: 21803

> > To do this I would use a 'blast from the past', a variometer.
> > This consists of two coils, one fixed and one rotating inside
> > the fixed coil. If both are the same inductance (so the outer
> > one is would with wider spacing than the inner) when they are
> > in "series aiding" the total inductance will be the sum, plus
> > the mutal inductance. When they are series opposing, the total
> > inductance will approace zero. (over simplifcation).
> > Variometers have NO moving contacts so they are easier to build
> > than rotary coils. They can't be made as large in inductance
> > without avoiding other problems (large distributed capacitance),
> > but a small variometer in series with a multitapped coil is a
> > good compromise.
> ========================

There's a serious shortcoming with variometers for transmitting purposes.

As the inductance reduces the wire resistance remains constant.

Result - extremely low Q for small inductances.

Reg, G4FGQ

3920. WANTED: Intersil 7226B IC

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-01 03:25:45 UTC
From: Robert Bartholomew <rbart@ptd.net>
Message-ID: <-JGdnTFOq-EkpDDcUSdV9g@ptd.net>
Source record: 21804

Hi,

I'm looking for an intersil 7226BIPL 40-pin dip counter...anyone got one???

Thanks!
Bob
KB8PXI
rbart@ptd.net

3921. Re: Wireless World magazine

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-01 03:36:01 UTC
From: Marty <rolf183@yahoo.com>
Message-ID: <314sh3F3684tvU2@individual.net>
Source record: 21805

"Adri" <tncdrn@tin.it> wrote in message
news:F__qd.19476$C94.3124@tornado.fastwebnet.it...
> interested in having a scan of the WW article :
> M L Christieson September 1988, p866
> FM quadrature IC (CA3089) works as a p.l.l. detector.
> Would gladly trade the favour with any later article (1989 - nowadays) of
> the same magazine
>

3089, know All about that one, designed it into first Motorola Mitrek radios
when the 3089s were coming out. Good Chip

3922. Re: Looking for roller inductors

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-01 09:02:55 UTC
From: ON5MJ <my_call_sign@skynet.be>
Message-ID: <41adcad4$0$29504$ba620e4c@news.skynet.be>
Source record: 21808

This is an important point.

Thanks. 73 de ON5MJ - Jacques.

3923. Re: Soldering surface mount components

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-01 09:49:17 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <315iinF36uk47U1@individual.net>
Source record: 21806
Cross-posted to: sci.electronics.misc,rec.radio.amateur.homebrew,uk.radio.amateur

That certainly matches my experience, which I had
put down to being supplie dfrom a reject batch.

So, what can we do as Radio Hams to prevent such
a problem?

How hot does the whole board have to be raised before
applying a solfering iron? Would a hairdryer do?

"Terry Given" <my_name@ieee.org> wrote in message
news:k1grd.19852$9A.331279@news.xtra.co.nz...
> Larry Brasfield wrote:
> > Hand soldering can be very hard on SMD ceramic capacitors.
> > The high temperature gradiant created by applying heat suddenly
> > at one end can fracture the ceramic. This can lead to excess noise
> > or a tendency to break down at a lower than rated voltage as
> > moisure gets into the crack(s). The insidious aspect of this kind
> > of damage is that it can show up in the field, quite some time
> > after the parts perform alright in initial testing.
>
> This is a VERY good point. Reflow ovens have very well controlled
> thermal profiles, slowly ramping temperature to a plateau, holding,
> slowly ramping up to final tmep, holding etc. Mostly to avoid this
> thermal shock related mechanical failure mechanism. High voltage
> ceramics are especially prone to this - hand soldering them is a risky
> process.
>
> I once used 2 x 15nF 1000V smt X7R caps in series across an 80-800Vdc
> supply for a smps application. During testing one smps failed
> catastrophically (two others ran fine). Detailed examination of the
> corpse showed a blast pattern radiating outward from one of the caps,
> which had ruptured. The resulting mess sprayed directly across the legs
> of one of the FETs, thereby toasting the unit. At the time it was
> operating at a DC bus voltage of around 400V, so the cap was nowhere
> near its rated voltage, more like 20%. One of the guys I worked with had
> extensive experience in this area (hi-rel smps hybrids for
> il/aerospace), and showed us what went wrong. We immediately replaced
> the capacitors, carefully using a manual hot air station, to both
> preheat and solder. The units operated continuously into a dead short at
> 800Vdc, no problems - there were other issues of course, it was a
> pre-production protoype, but none of the explosive kind.

3924. Re: WANTED: Intersil 7226B IC

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-01 11:07:31 UTC
From: mike@corn2.freeserve.co.uk
Message-ID: <41ada5b4.175751903@news.freeserve.net>
Source record: 21807

I believe that Maxim have a pin4pin replacement, prefixed ICL
hth Mike W
--
On Tue, 30 Nov 2004 22:25:45 -0500, "Robert Bartholomew"
<rbart@ptd.net> wrote:

>Hi,
>
>I'm looking for an intersil 7226BIPL 40-pin dip counter...anyone got one???
>
>Thanks!
> Bob
>KB8PXI
>rbart@ptd.net
>
>

3925. Re: Looking for roller inductors

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-01 13:48:54 UTC
From: ON5MJ <my_call_sign@skynet.be>
Message-ID: <41adcad4$1$29504$ba620e4c@news.skynet.be>
Source record: 21809

Hi there,

I have recently visited an important Ham flea market here in october. Only one (and I need 2) very big roller coil for sale, able to pass kWs. Too big for my application but I bought it just in case.

73 de ON5MJ - Jacques.

3926. Re: Soldering surface mount components

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-01 15:37:58 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10qrpaakl83j98d@corp.supernews.com>
Source record: 21810
Cross-posted to: sci.electronics.misc,rec.radio.amateur.homebrew,uk.radio.amateur

Airy R. Bean wrote:
> That certainly matches my experience, which I had
> put down to being supplie dfrom a reject batch.
>
> So, what can we do as Radio Hams to prevent such
> a problem?
>
> How hot does the whole board have to be raised before
> applying a solfering iron? Would a hairdryer do?
>
> "Terry Given" <my_name@ieee.org> wrote in message
> news:k1grd.19852$9A.331279@news.xtra.co.nz...
>
>>Larry Brasfield wrote:
>>
>>>Hand soldering can be very hard on SMD ceramic capacitors.
>>>The high temperature gradiant created by applying heat suddenly

--snip--

>
>
Folks are starting to experiment with reflow soldering in toaster ovens. I've read good reports on the web, but have absolutely no personal experience nor have I even talked to someone who's done it, so I can't vouch for it. One of these days I'll give it a try, in the meantime you can search on toaster oven reflow and get a slew of pages.

There's at least one company (www.pcbexpress.com) who'll even make prototype stencils for your solder paste, although for stuff that's not too fine you can dispense paste from a syringe.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

3927. Re: Soldering surface mount components

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-01 17:35:00 UTC
From: Steve <no-one@here.now>
Message-ID: <pan.2004.12.01.17.34.43.891703@here.now>
Source record: 21811
Cross-posted to: sci.electronics.misc,rec.radio.amateur.homebrew,uk.radio.amateur

>>
>>>Larry Brasfield wrote:
>>>
>>>>Hand soldering can be very hard on SMD ceramic capacitors.
>>>>The high temperature gradiant created by applying heat suddenly

Get a decent temperature controlled soldering iron, run it at 600F/315C and use low melting point solder. No need for preheating or any other messing about.

On some boards chips can be tricky to remove because they are glued in place.

Steve

3928. Re: S-Meter Calibration Standards?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-01 18:41:36 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20041201134136.06333.00001198@mb-m18.aol.com>
Source record: 21812

>I find the obligatory 599 or 59 report absolute nonsense , if not stupid ,
>especially in connection with contests ,because it does not provide 'any
>information' .

So, like you want me to sit at the rig with magnifying glass and observe the meter with 5% accuracy?
Reports became largely redundant, most people chose to 59 them, but nobody is stopping you from using accurate report. It just became more important in the contest to work as many as possible, fast, rather than do scientific reporting on signals. The other purpose is to alert the recipient that the other part of exchange is coming.
Most established contests are using signal reports (old requirement for DXCC QSOs). Some newer ones and VHF are not.
Check http://www.computeradio.us/TeslaCup.htm for really fair and modern HF contest rules.

73 and 599
Yuri, K3BU.us

3929. Re: S-Meter Calibration Standards?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-01 19:02:27 UTC
From: Noise From Afar <NFA@wayoutdare.net>
Message-ID: <7zord.190863$hj.186448@fed1read07>
Source record: 21813

The reason for the 59 or 599 is contesters don't want to waste time with lesser reports so they always give 59 or 599
and their computers are programmed for 59 or 599
Paper loggers just enter 59 or 599 in one entry and draw a line thru the column
Time is of the essence in a contest
This practice altho wrong has been going on for years and undoubtedly will continue

And a contester is not after RST information per se but must satisfy the rules -- just quick rapid contacts is the drill
Q-Rate me lads Q-Rate

--
ruido de ic&#65533;gnito

Someone wrote
> >I find the obligatory 599 or 59 report absolute nonsense , if not stupid
> >,
>>especially in connection with contests ,because it does not provide 'any
>>information' .

3930. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-01 20:30:17 UTC
From: normanstrong <normanstrong@comcast.net>
Message-ID: <tRprd.187045$R05.19393@attbi_s53>
Source record: 21814
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

You must have paid one of them at one time--so they keep sending them!

3931. Re: S-Meter Calibration Standards?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-01 22:07:25 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10qsg4v4v2u9115@corp.supernews.com>
Source record: 21815

Yuri Blanarovich wrote:

>>I find the obligatory 599 or 59 report absolute nonsense , if not stupid ,
>>especially in connection with contests ,because it does not provide 'any
>>information' .
>
>
> So, like you want me to sit at the rig with magnifying glass and observe the
> meter with 5% accuracy?
> Reports became largely redundant, most people chose to 59 them, but nobody is
> stopping you from using accurate report. . .

It's lots of fun to jump into a DX contest for a while and give honest
RST reports. Totally blows the other guy's mind. I suspect most can't
even figure out a way to log it. I'm sure Yuri would get a big kick out
of folks doing that to him during a hot contest.

Roy Lewallen, W7EL

3932. Need IF can

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-01 22:12:26 UTC
From: brokebob@aol.com
Message-ID: <20041201171226.14202.00001224@mb-m13.aol.com>
Source record: 21816

OK, been looking high and low for an IF can so I can add a crystal filter to my cheap receiver. Tired of going through flea market junk looking for an old tube type junk receiver with a 455 khz input or interstage can. Never found a single one!

Surely someone has one they can part with. Needs to be the smaller (3/4 in sq?) with solder tie points. Both windings need to be sorta hi z and should have two slugs that turn.

Got lots of swapping goodies and a little cash. Which do you need?

Bob, W4PEX for 55 years
brokebob@aol.com (broke=not working, retired=not working, retired=broke)

3933. Re: S-Meter Calibration Standards?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-01 22:13:27 UTC
From: Allodoxaphobia <bit-bucket@config.com>
Message-ID: <slrncqsgg7.vqv.bit-bucket@shell.config.com>
Source record: 21817

On Wed, 1 Dec 2004 11:02:27 -0800, Noise From Afar hath writ:
> The reason for the 59 or 599 is contesters don't want to waste time with
> lesser reports so they always give 59 or 599
> and their computers are programmed for 59 or 599
> Paper loggers just enter 59 or 599 in one entry and draw a line thru the
> column
> Time is of the essence in a contest
> This practice altho wrong has been going on for years and undoubtedly will
> continue
>
> And a contester is not after RST information per se but must satisfy the
> rules -- just quick rapid contacts is the drill
> Q-Rate me lads Q-Rate

That's whay (as an earlier poster in the thread mentioned) VHF contests
are more honest. The exchange has to be the (correct) grid square.

Thus, the contest judges have a excellent way to locate mis-matched
calls:grids.

73
Jonesy
--
| Marvin L Jones | jonz | W3DHJ | linux
| Gunnison, Colorado | @ | Jonesy | OS/2 __
| 7,703' -- 2,345m | config.com | DM68mn SK

3934. Re: Tesla Coils

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-01 22:27:15 UTC
From: Risto Tiilikainen <risto.tiilikainen@luukku.com>
Message-ID: <41ae5147$0$29223$8e79b8c8@news.yhteys.mtv3.fi>
Source record: 21819

> Fail safe? How do you figure?

Thanks for your comments to the various questions.

Maybe my English impression was poor.
With fail safe I was meaning the safe construction which is controlled by regulations and paragraphs.
In outdoor use and in moist places standard fluorescent tubes, their wiring, chokes and igniter are never allowed to have open construction. (at least here in Nordic countries)
Similar situation is not with neon lights on the walls. Sometimes there are bare without any enclosures.
I even remember having seen the end wires of the tubes visible.
Well - normally neon lights are rather high so that people cannot touch them.

Risto

3935. Re: S-Meter Calibration Standards?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-01 23:17:41 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <e1ksq05afo734cncp4tjtr5tvsniur8vs1@4ax.com>
Source record: 21818

On Wed, 1 Dec 2004 11:02:27 -0800, "Noise From Afar"
<NFA@wayoutdare.net> wrote:

>The reason for the 59 or 599 is contesters don't want to waste time with
>lesser reports so they always give 59 or 599
>and their computers are programmed for 59 or 599
>Paper loggers just enter 59 or 599 in one entry and draw a line thru the
>column

that is bad logging practice,
you write 5 for 559, 7 for 579, and leave open for 599

with 25WPM it is no real problem on this side

J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

3936. Re: S-Meter Calibration Standards?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-01 23:36:53 UTC
From: Ralph Mowery <rmowery28146@earthlink.net>
Message-ID: <pAsrd.469$714.76@newsread2.news.atl.earthlink.net>
Source record: 21820

"Noise From Afar" <NFA@wayoutdare.net> wrote in message
news:7zord.190863$hj.186448@fed1read07...
> The reason for the 59 or 599 is contesters don't want to waste time with
> lesser reports so they always give 59 or 599
> and their computers are programmed for 59 or 599
> Paper loggers just enter 59 or 599 in one entry and draw a line thru the
> column
> Time is of the essence in a contest
> This practice altho wrong has been going on for years and undoubtedly will
> continue
>
> And a contester is not after RST information per se but must satisfy the
> rules -- just quick rapid contacts is the drill
> Q-Rate me lads Q-Rate
>

AS time and the Q rate is important and everyone is going 599, why don't
the contest rules just do away with that requirement ? What good is it ?

3937. Re: Need IF can

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-02 00:24:25 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <Zgtrd.17047$cE3.14295@clgrps12>
Source record: 21821

How about two older transistor IF cans, secodary-to-secondary. place the filter in between the low-Z sections and take the output from the primary of the second can?

--
Gregg t3h g33k
"Ratings are for transistors....tubes have guidelines"
http://geek.scorpiorising.ca

3938. Re: Metal film resistors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-02 00:35:36 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10qsoqs26ao7le5@corp.supernews.com>
Source record: 21822

Duncan Munro wrote:
>
> The kind of measurement frequencies we are talking about are in the order
> of 700kHz. At that frequency, the inductance of the 'indicated' 4.5uH is
> 19.8 ohms, not a million miles from the 22 ohms of the resistor itself -
> this is not what I would call a reasonable 'Q' value. Fair play to AADE,
> it's designed to measure the inductance of inductors, not other components
> ;-)

If the reactance is much lower than the resistance, it's generally inconsequential in a practical application. I think that's almost always the case for carbon film resistors, and I suspect it's nearly always the case for metal film resistors.

Probably, if the Q is so low as to make measurement difficult, it's probably low enough that the X isn't important in a practical application.

Roy Lewallen, W7EL

3939. Re: Need IF can

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-02 00:42:44 UTC
From: brokebob@aol.com
Message-ID: <20041201194244.06204.00000768@mb-m21.aol.com>
Source record: 21823

The filter will be a single crystal with a phasing cap to adjust the null frequency. I need two signals 180 degrees out of phase which I will get by using two capacitors across secondary with the center grounded. This is the scheme I used years ago and never found another scheme that worked as well for me.

Bob
brokebob@aol.com (broke=not working, retired=not working, retired=broke)

3940. Re: Metal film resistors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-02 01:43:35 UTC
From: budgie <me@privacy.net>
Message-ID: <7pssq0lh319436l0cuc84jp13nf860r2ab@4ax.com>
Source record: 21824

On Wed, 01 Dec 2004 16:35:36 -0800, Roy Lewallen <w7el@eznec.com> wrote:

>Duncan Munro wrote:
>>
>> The kind of measurement frequencies we are talking about are in the order
>> of 700kHz. At that frequency, the inductance of the 'indicated' 4.5uH is
>> 19.8 ohms, not a million miles from the 22 ohms of the resistor itself -
>> this is not what I would call a reasonable 'Q' value. Fair play to AADE,
>> it's designed to measure the inductance of inductors, not other components
>> ;-)
>
>If the reactance is much lower than the resistance, it's generally
>inconsequential in a practical application. I think that's almost always
>the case for carbon film resistors, and I suspect it's nearly always the
>case for metal film resistors.
>
>Probably, if the Q is so low as to make measurement difficult, it's
>probably low enough that the X isn't important in a practical application.

(adds) ..... at the test frequency

3941. Re: S-Meter Calibration Standards?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-02 03:24:57 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20041201222457.06537.00001210@mb-m15.aol.com>
Source record: 21825

>
>It's lots of fun to jump into a DX contest for a while and give honest
>RST reports. Totally blows the other guy's mind. I suspect most can't
>even figure out a way to log it. I'm sure Yuri would get a big kick out
>of folks doing that to him during a hot contest.
>
>Roy Lewallen, W7EL
>
>

No problem, just one more keystroke, unless one has jumped the gun, assumed 599 and logged the QSO before the other station sent the real report. Then it is few more keystrokes :-(

Yuri, K3BU.us

3942. Re: Soldering surface mount components

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-02 03:29:53 UTC
From: w9gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <Q_vrd.178384$HA.36082@attbi_s01>
Source record: 21826
Cross-posted to: sci.electronics.misc,rec.radio.amateur.homebrew,uk.radio.amateur

Have you seen my new soldering iron?
http://www.seattlerobotics.org/encoder/200006/oven_art.htm

w9gb

"Tim Wescott" <tim@wescottnospamdesign.com> wrote in message
news:10qrpaakl83j98d@corp.supernews.com...
> Airy R. Bean wrote:
>> That certainly matches my experience, which I had
>> put down to being supplie dfrom a reject batch.
>>
>> So, what can we do as Radio Hams to prevent such
>> a problem?
>>
>> How hot does the whole board have to be raised before
>> applying a solfering iron? Would a hairdryer do?
>>
>> "Terry Given" <my_name@ieee.org> wrote in message
>> news:k1grd.19852$9A.331279@news.xtra.co.nz...
>>
>>>Larry Brasfield wrote:
>>>
>>>>Hand soldering can be very hard on SMD ceramic capacitors.
>>>>The high temperature gradiant created by applying heat suddenly
>
> --snip--
>
>>
>>
> Folks are starting to experiment with reflow soldering in toaster ovens.
> I've read good reports on the web, but have absolutely no personal
> experience nor have I even talked to someone who's done it, so I can't
> vouch for it. One of these days I'll give it a try, in the meantime you
> can search on toaster oven reflow and get a slew of pages.
>
> There's at least one company (www.pcbexpress.com) who'll even make
> prototype stencils for your solder paste, although for stuff that's not
> too fine you can dispense paste from a syringe.
>
> --
>
> Tim Wescott
> Wescott Design Services
> http://www.wescottdesign.com

3943. Re: S-Meter Calibration Standards?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-02 03:41:54 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20041201224154.06537.00001211@mb-m15.aol.com>
Source record: 21827

>
>AS time and the Q rate is important and everyone is going 599, why don't
>the contest rules just do away with that requirement ? What good is it ?
>

Does not take all that much time with 5NN and it is kind of allert what is coming. In CQ WW where report and zone is exchanged, even that is redundant, unless one is in weird zone, then you have to watch the real response. Report inclusion in contest exchange is from the old QSO/QSL requirement for awards to be at least 337. With all the super duper equipment and perfect propagation everybody is 59/599 :-) So if you hear the station, it's 59, if you don't hear it well, need few repeats, he is 59 after all :-)

With some operators going at 460 QSOs/hour, something has to give. Five Nine also becomes FyNy. Saves few lips.

If you want to "punish" me and throw 47 at me in the contest, I would appreciate any point I can get and I would duly record that with extra two keystrokes.

As far as S-meters, it should be illegal to be stronger than S9, it complicates the things. Over S9, very 6 dB we should use alphabet A, B, C .... to stay with single digit.

Funny one happened once with huge pile-up on a rare DX. Calling was never ending, when finally died, because DX wasn't coming back to anybody, he came back with "All of you, you are 59, XX5ZZ" You should have heard the dead silence on frequency :-)

73 Yuri, K3BU.us
Tesla RC N2EE, NT1E in contests

3944. Re: Metal film resistors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-02 03:57:48 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10qt4ltrftsb6d1@corp.supernews.com>
Source record: 21828

budgie wrote:

> On Wed, 01 Dec 2004 16:35:36 -0800, Roy Lewallen <w7el@eznec.com> wrote:
>
>
>>Duncan Munro wrote:
>>
>>>The kind of measurement frequencies we are talking about are in the order
>>>of 700kHz. At that frequency, the inductance of the 'indicated' 4.5uH is
>>>19.8 ohms, not a million miles from the 22 ohms of the resistor itself -
>>>this is not what I would call a reasonable 'Q' value. Fair play to AADE,
>>>it's designed to measure the inductance of inductors, not other components
>>>;-)
>>
>>If the reactance is much lower than the resistance, it's generally
>>inconsequential in a practical application. I think that's almost always
>>the case for carbon film resistors, and I suspect it's nearly always the
>>case for metal film resistors.
>>
>>Probably, if the Q is so low as to make measurement difficult, it's
>>probably low enough that the X isn't important in a practical application.
>
>
> (adds) ..... at the test frequency

Sure. Any statement about a frequency-dependent property like X or Q applies only at the frequency at which the component has that particular X or Q.

As you raise the frequency, the X of course increases while the R stays relatively constant. But other effects like shunt C and the physical length of the part eventually start coming into play, making the simplistic model of a series RL inadequate. My general experience has been that I can ignore the inductance of leaded carbon film resistors up to a frequency where the leads and component length become a problem, and I need to go to chip components. I've never seen significant reactance from the trim cuts on a thick film chip resistor -- the shunt C across the narrow cuts pretty much makes them invisible.(*) I suspect that carbon film resistors likewise have a narrow cut. But I don't have much experience with metal film resistors. I assume the base material has less resistivity, so is probably cut into thinner strips with more "turns" and more spacing between "turns". So there might be a combination of R and frequency where the reactance is objectionable, below the frequency where you need to abandon leaded parts. I'm watching this thread with interest for any good measurement results. I could try

making some measurements up to 1.3 GHz with my 8505A network analyzer, but I wouldn't trust the results. I think the measurements probably would have to be done on a system with good, computer-directed calibration, a good set of calibration standards, a decent and well-characterized test fixture, and an operator who's very familiar with the many traps you can fall into when making subtle measurements like these -- and I have none of the above.

(*) I've used thick film resistors at frequencies up to 20 GHz or so, in very sensitive time-domain applications. In those applications, I modeled nearly every component as a transmission line or a pi or tee approximation to a line, with the R in one or two lumps. Those models agreed quite well with actual results.

Roy Lewallen, W7EL

3945. Re: Soldering surface mount components

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-02 04:25:52 UTC
From: crzndog <cool_blue_dog@nospam_hotmail.com>
Message-ID: <2c-dnRkyHqXFBDPcRVn-tw@comcast.com>
Source record: 21829
Cross-posted to: sci.electronics.misc,rec.radio.amateur.homebrew,uk.radio.amateur

OK, so this is basically emulating the reflow process. The only issue with this is that there is no real temperature control and you can damage both the board and the components if you are not careful (as is the case with all soldering).

The technique I use is lots of flux and a soldering iron. It is key to use flux so that the solder flows properly. Sometimes a microscope is required and then occasional washing to remove the solidified gunky flux [wash in ethyl alcohol]. However if you want to solder an IC you can run the soldering iron along the side of the IC. Slope the board and then run the soldering iron down the board from the top most pin to the bottom most one and the solder meniscus will stick/flow with the soldering iron. You will end up with the last 2 or 3 pins with a bridge which can easily be removed with solder braid. You do however need to tack the IC down to start off with so that it doesn't move whilst soldering. I learned this from a very skilled tech and it works incredibly well. Especially for 25-50mil pitch QFPs. For Passives, it's a lot of work and the technique given in the link below may be better if you have lots of them.

FLUX is always key though! Water soluble if possible as it's easier to clean off. Just wash it and wait for it to dry. Don't try and heat it dry since this can cause steam to form under the solder joints (and the ICs) and cause adverse pressure. The pressure can cause joints to fail and parts to crack.

I would also like to point out something else about the technique given in the link below. Bake out! One real issue in SMT soldering is that IC's have to be baked out if they've been sitting in a normal environmnet (humidity) since the epoxy absorbs water. The water then gets heated by the IR reflow process/oven and can cause the IC to crack. The way around this is to heat the IC/components gently to above 100 deg C (125 deg C is OK). This bkes out the water. USually in an industrial process this is done for about an hour or 2. The IC's are then sealed in a waffle tray and bag with anhydrous silicone crystals to make sure no water gets reabsorbed. You shoudl only be wary of this if your IC's have been lying around in a damp warm atmosphere for a few days. For normal prototyping this is not so much of a problem.

You can also get the reflow "hairdryer" kinds of devices. These work well also and are a little bit more controllable than an oven. If you paste as described by the link below, just heat around the IC/components until the solder goes shiny. It'll reflow at that point. Let it cool off and check it.

"w9gb" <onw9mapsgb@no.arrl.spam.net> wrote in message
news:Q_vrd.178384$HA.36082@attbi_s01...
> Have you seen my new soldering iron?
> http://www.seattlerobotics.org/encoder/200006/oven_art.htm
>
> w9gb
>
>
> "Tim Wescott" <tim@wescottnospamdesign.com> wrote in message
> news:10qrpaakl83j98d@corp.supernews.com...
>> Airy R. Bean wrote:
>>> That certainly matches my experience, which I had
>>> put down to being supplie dfrom a reject batch.
>>>
>>> So, what can we do as Radio Hams to prevent such
>>> a problem?
>>>
>>> How hot does the whole board have to be raised before
>>> applying a solfering iron? Would a hairdryer do?
>>>
>>> "Terry Given" <my_name@ieee.org> wrote in message
>>> news:k1grd.19852$9A.331279@news.xtra.co.nz...
>>>
>>>>Larry Brasfield wrote:
>>>>
>>>>>Hand soldering can be very hard on SMD ceramic capacitors.
>>>>>The high temperature gradiant created by applying heat suddenly
>>
>> --snip--
>>
>>>
>>>
>> Folks are starting to experiment with reflow soldering in toaster ovens.
>> I've read good reports on the web, but have absolutely no personal
>> experience nor have I even talked to someone who's done it, so I can't
>> vouch for it. One of these days I'll give it a try, in the meantime you
>> can search on toaster oven reflow and get a slew of pages.
>>
>> There's at least one company (www.pcbexpress.com) who'll even make
>> prototype stencils for your solder paste, although for stuff that's not
>> too fine you can dispense paste from a syringe.
>>
>> --
>>
>> Tim Wescott
>> Wescott Design Services
>> http://www.wescottdesign.com
>
>

3946. Re: Tesla Coils

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-02 04:27:58 UTC
From: default <none@defaulter.net>
Message-ID: <vo1tq05d0umhmjc13ndkbl0ep75fn3jo4j@4ax.com>
Source record: 21830

On Thu, 2 Dec 2004 00:27:15 +0200, "Risto Tiilikainen"
<risto.tiilikainen@luukku.com> wrote:

>
>
>> Fail safe? How do you figure?
>
>Thanks for your comments to the various questions.
>
>Maybe my English impression was poor.
>With fail safe I was meaning the safe construction which is controlled by
>regulations and paragraphs.
>In outdoor use and in moist places standard fluorescent tubes, their wiring,
>chokes and igniter are never allowed to have open construction. (at least
>here in Nordic countries)
>Similar situation is not with neon lights on the walls. Sometimes there are
>bare without any enclosures.
>I even remember having seen the end wires of the tubes visible.
>Well - normally neon lights are rather high so that people cannot touch
>them.
>
>Risto
>
Interesting. I'd probably call what you refer to as "fail safe" as
"foolproof."

Do you have stricter regulations regarding fluorescent lamps versus
other line operated electrical appliances?

Perhaps the reason for stricter controls is the fact that fluorescent
lamps are frequently used in family residences.

Or, perhaps they are concerned about electromagnetic fields - here it
is politically unpopular to even hint that low frequency emf's can be
damaging to health. I've read that some Scandinavian countries are
considering imposing LF EMF limits or are already doing so. Do you
know anything about that?

I see the same things with neon tubes here, particularly in the older
establishments. Wires with just a plastic or glass sleeve over the
connection to the tubes and not protected from water or hands.

The transformers usually have a secondary center tap that is grounded,
so each side of the neon tube only sees half the total high voltage.
But half is still a lot . . . My smaller transformer is 10 KV @ 30 ma
(for ignition on an oil furnace - but identical in construction to a

NST). I can't imagine it feels good if one were to get body parts across it. It is designed to start fires . . . I'm not about to try it and I don't know anyone who got shocked by one.

One correction to my earlier post: The common style of car ignition transformer relies on a rapidly collapsing magnetic field to produce a spike of high voltage, not just the turns ratio. Field builds slowly and collapses fast.

If the same induction coil were used with a capacitive discharge ignition circuit, the turns ratio and high primary voltage produces the high voltage.

3947. Re: Knobs wanted

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-02 04:39:39 UTC
From: default <none@defaulter.net>
Message-ID: <lr6tq0pcppg8cb1rtjlf0h7qfnonpe5d7l@4ax.com>
Source record: 21831
Cross-posted to: rec.radio.swap,rec.radio.amateur.homebrew

On Sun, 28 Nov 2004 06:58:20 -0800, Bill Turner <noway@nohow.com>
wrote:

>Looking for a pair of matching knobs for tune and load on a homebrew
>amplifier. I want the kind with a dial scale attached reading 0-100.
>Knobs should be about 1-1/2 inches in diameter with about a 2-1/2 inch
>scale.
>
>An alternative would be to have the scale separate, which I could mount
>to the panel behind the knobs.
>
>Whatcha got?

Can't help with knobs.

An idea for a scale: use a computer, printer and drawing program to
create a scale. Print on paper and sandwich it between the chassis
and a clear plastic cover.

3948. Re: Why do I get electricity bills? (another thought-provoking metaphysical conundrum)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-02 07:32:29 UTC
From: R <spmaway@ylhoo.com>
Message-ID: <Xns95B3FAE6B941mc2500183316chgoill@10.232.1.1>
Source record: 21832
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

"Highland Ham" <abcgm0csz.kn6whxyz@abcntlworldxyz.com> wrote in
news:Ks8rd.144$1Q1.100@newsfe2-win.ntli.net:

>> >Multiply your voltage by your
>> >current instant by instant, take the average (gives you power) and
>> >multiply that by the duration in hours and you have your consumption.
>>
>> They don't bill me instant-by-instant; they bill me for the power they
>> claim I've used over the course of a three-monthly period. Since power
>> is the product of voltage and current (and I've proved earlier that
>> both are zero)
> =============
> As commented before in this thread you are billed for 'energy' NOT
> power.
>
> Frank GM0CSZ / KN6WH
>
>

I get billed by the KWH (kilowatthour)

r

--
Nothing beats the bandwidth of a station wagon filled with DLT tapes.

3949. Re: Metal film resistors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-02 08:52:43 UTC
From: budgie <me@privacy.net>
Message-ID: <brltq0l0a5beip2465jmusdsqecabbteso@4ax.com>
Source record: 21833

On Wed, 01 Dec 2004 19:57:48 -0800, Roy Lewallen <w7el@eznec.com> wrote:

>budgie wrote:
>
>> On Wed, 01 Dec 2004 16:35:36 -0800, Roy Lewallen <w7el@eznec.com> wrote:
>>
>>
>>>Duncan Munro wrote:
>>>
>>>>The kind of measurement frequencies we are talking about are in the order
>>>>of 700kHz. At that frequency, the inductance of the 'indicated' 4.5uH is
>>>>19.8 ohms, not a million miles from the 22 ohms of the resistor itself -
>>>>this is not what I would call a reasonable 'Q' value. Fair play to AADE,
>>>>it's designed to measure the inductance of inductors, not other components
>>>>;-)
>>>
>>>If the reactance is much lower than the resistance, it's generally
>>>inconsequential in a practical application. I think that's almost always
>>>the case for carbon film resistors, and I suspect it's nearly always the
>>>case for metal film resistors.
>>>
>>>Probably, if the Q is so low as to make measurement difficult, it's
>>>probably low enough that the X isn't important in a practical application.
>>
>>
>> (adds) ..... at the test frequency
>
>Sure. Any statement about a frequency-dependent property like X or Q
>applies only at the frequency at which the component has that particular
>X or Q.

I only added that because the test frequency was cited as ~700kHz and a casual reader may have taken the above to mean that the X was insignificant at the frequency of intended operation.

3950. Re: Looking for roller inductors

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-02 09:58:11 UTC
From: ON5MJ <my_call_sign@skynet.be>
Message-ID: <41aee643$0$7836$ba620e4c@news.skynet.be>
Source record: 21834

I am lucky this morning. I have received two identical roller coils from France (35 µH each), scrapped in the 70's (and sleeping for many years) from an old French submarine transmitter. And in a very good mechanical and electrical state. Now I will buy some stepper motors for positionning.

I also have received a few days ago by e-mail from Bob (anonymous) an interesting article taken from QEX about the building of a roller coil and some good ideas about stepper motors. Thank you to all.

73 de ON5MJ - Jacques.

3951. Re: Metal film resistors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-02 10:24:09 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10qtracafila9a5@corp.supernews.com>
Source record: 21835

budgie wrote:
>
> I only added that because the test frequency was cited as ~700kHz and a casual
> reader may have taken the above to mean that the X was insignificant at the
> frequency of intended operation.

Ah, thanks, I'd missed that. At 700 kHz, you'd never get enough
reactance from a metal film resistor to be bothersome, and I doubt that
you'd even be able to measure it.

Roy Lewallen, W7EL

3952. Re: Metal film resistors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-02 12:01:03 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <mbHCUCV$PwrBFAzz@ifwtech.co.uk>
Source record: 21837

Duncan Munro wrote:
>On Tue, 30 Nov 2004 21:04:28 +0000, Ian White, G3SEK wrote:
>
>> Guessing a frequency and then doing the parallel -> series
>> transformation on 22 ohms in parallel with 4.5uH produces results in the
>> right ballpark: R is still around 22 ohms but the *series* inductance is
>> 100-200nH.
>
>There is an additional complication in that there is another inductor in
>the box itself of 680uH, LX (or should I say RX) is in series with that.
>It's late now, but I will try and work out what's going on tomorrow night.
>
>> I will try to measure the resistors tomorrow.
>
>If you get the opportunity, it would be much appreciated.
>

Over a range from 50kHz to 50MHz, Duncan's two resistors measure about
22 ohms + 31nH, and 33 ohms + 23nH.

To avoid having to construct a special test jig, I measured each
resistor with about 30mm of bent wire leads, which would account for
about 20nH of those measured inductance values.

The very low inductance of the resistor body is completely consistent
with the physical construction. On closer inspection, the metal film is
an almost continuous tube, with a very narrow spiral gap of about 1.5
turns. The gap adjusts the resistance by slightly increasing the overall
electrical path length, but it adds very little inductance.

If you used very short leads instead of the longer lengths I had to use,
these resistors would have a low SWR up to at least 144MHz.

Thanks again to Duncan for supplying the resistors.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

3953. FS: 8877 & 3CX3000A7

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-02 15:48:59 UTC
From: The Tube Man <thetubeman@earthlink.net>
Message-ID: <LPGrd.1236$714.895@newsread2.news.atl.earthlink.net>
Source record: 21836

I have two new EIMAC 8877/3CX1500A7/YU209
for sale - $625 each

Also, I have one new 3CX3000A7 - $685

thetubeman@earthlink.net

THE TUBE MAN
Richard Hale
902 Lothian Dr
Tallahassee, FL 32312
USA
850 386-2729 Phone
850 386-2560 Fax
thetubeman@earthlink.net

3954. FS: 8877 & 3CX3000A7

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-02 16:02:00 UTC
From: The Tube Man <thetubeman@earthlink.net>
Message-ID: <Y%Grd.1249$714.448@newsread2.news.atl.earthlink.net>
Source record: 21838

I have two new EIMAC 8877/3CX1500A7/YU209
for sale - $625 each

Also, I have one new 3CX3000A7 - $685

thetubeman@earthlink.net

3955. Re: Metal film resistors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-02 20:42:02 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10quvgsp8b75m72@corp.supernews.com>
Source record: 21844

Ian, if it's not too much trouble, I'd be very interested in how the measured inductance compares to that of the resistor body/leads only. I'd think that could be done by coating a similar-size resistor with conductive paint or foil and measuring with the same method. The difference between this measurement and the one you made would then show how much inductance is due to the spiral element, and would represent the minimum possible inductance for that resistor body type and lead length.

Roy Lewallen, W7EL

Ian White, G3SEK wrote:

>
> Over a range from 50kHz to 50MHz, Duncan's two resistors measure about
> 22 ohms + 31nH, and 33 ohms + 23nH.
>
> To avoid having to construct a special test jig, I measured each
> resistor with about 30mm of bent wire leads, which would account for
> about 20nH of those measured inductance values.
>
> The very low inductance of the resistor body is completely consistent
> with the physical construction. On closer inspection, the metal film is
> an almost continuous tube, with a very narrow spiral gap of about 1.5
> turns. The gap adjusts the resistance by slightly increasing the overall
> electrical path length, but it adds very little inductance.
>
> If you used very short leads instead of the longer lengths I had to use,
> these resistors would have a low SWR up to at least 144MHz.
>
> Thanks again to Duncan for supplying the resistors.
>
>

3956. Re: Metal film resistors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-02 20:45:24 UTC
From: Duncan Munro <postmaster@duncanamps.com>
Message-ID: <anp1iur36ji6.so326799anvm.dlg@40tude.net>
Source record: 21840

On Thu, 2 Dec 2004 12:01:03 +0000, Ian White, G3SEK wrote:

> Thanks again to Duncan for supplying the resistors.

No need, it's thanks to you for taking the time to measure them and post
the results!

At least I now know my linear is not going to fail because the carbon comps
have been replaced with the metal oxide and metal film jobs. Thanks again
Ian.

--
Duncan Munro
http://www.duncanamps.com/

3957. Re: Metal film resistors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-02 23:20:40 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <XuaeJNqIN6rBFAWN@ifwtech.co.uk>
Source record: 21839

Roy Lewallen wrote:
>Ian, if it's not too much trouble, I'd be very interested in how the
>measured inductance compares to that of the resistor body/leads only.
>I'd think that could be done by coating a similar-size resistor with
>conductive paint or foil and measuring with the same method. The
>difference between this measurement and the one you made would then
>show how much inductance is due to the spiral element, and would
>represent the minimum possible inductance for that resistor body type
>and lead length.
>
I could certainly do that, because Duncan has supplied pairs of
resistors: one in original condition, and the other with the coating
cleaned off, just ready for painting.

However, the difference in inductance is going to be very small, and I'd
need to build a test jig that can keep other stray inductances under
control.

Over the weekend, maybe...

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

3958. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____ egedduqy

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-03 01:01:26 UTC
From: Sir Cumference <me@this.ten>
Message-ID: <iqadnY2tlL9fJjLcRVn-ig@gbronline.com>
Source record: 21846
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

Walt Davidson wrote:

> On Tue, 09 Nov 2004 22:27:14 -0500, "J. D. B." <duffyb01@fuse.net>
> wrote:
>
>
>>You're right, we Americans no longer care about the rest of the world.
>>When we did, by feeding them, fighting for them, helping them rebuild,
>>etc. The rest of the world crapped on us. Twice in the last century we
>>had to save the damn Europeans in two World Wars.
>
>
> LOL! They actually teach them this crap in school now.

If the US had not become involved in WWII you Brits would be speaking
German today. There was no way England would have defeated Hitler
without the US help.

3959. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____ egedduqy

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-03 01:34:33 UTC
From: pfriedmanNoSpam <p.paulfriedmanNoSpam@comcast.net>
Message-ID: <P4qdnY4sfqp8XjLcRVn-iA@comcast.com>
Source record: 21841
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

"Sir Cumference" <me@this.ten> wrote in message
news:iqadnY2tlL9fJjLcRVn-ig@gbronline.com...
> Walt Davidson wrote:
>
>> On Tue, 09 Nov 2004 22:27:14 -0500, "J. D. B." <duffyb01@fuse.net>
>> wrote:
>>
>>
>>>You're right, we Americans no longer care about the rest of the world.
>>>When we did, by feeding them, fighting for them, helping them rebuild,
>>>etc. The rest of the world crapped on us. Twice in the last century we
>>>had to save the damn Europeans in two World Wars.
>>
>>
>> LOL! They actually teach them this crap in school now.
>
> If the US had not become involved in WWII you Brits would be speaking
> German today. There was no way England would have defeated Hitler without
> the US help.
>

psst, it was Soviets who did more to defeat Germany than all the other
Powers combined. With a fair amount of material aid from the U.S., yes, but
it was their blood. And, no, I am not belittling the sacrifices made by U.S.
troops. My father fought in Africa, Sicily, Italy, France, and Germany and I
have his Sliver Star, Bronze Star, Purple Heart, etc. as a proud reminder.

Paul AB0SI

3960. Re: Soldering surface mount components

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-03 02:22:53 UTC
From: w9gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <16Qrd.704019$8_6.165409@attbi_s04>
Source record: 21847
Cross-posted to: sci.electronics.misc,rec.radio.amateur.homebrew,uk.radio.amateur

It is interesting to note that if you look at one of the winners (Robert Lacoste) of the Circuit Cellar design contest (Steve Ciarcia's embedded microcontroller design magazine) ... he addressed many of the issues that you raised.
http://www.circuitcellar.com/library/print/0704/Lacoste_168/index.htm

In fact enough, with a $150 toaster oven and a low-cost controller, he achieved reflows with good results. A few mfg. were very interested in his design and approach (Robert has his own consulting company in France).

gb

"crzndog" <cool_blue_dog@nospam_hotmail.com> wrote in message news:2c-dnRkyHqXFBDPcRVn-tw@comcast.com...
> OK, so this is basically emulating the reflow process. The only issue
> with this is that there is no real temperature control and you can damage
> both the board and the components if you are not careful (as is the case
> with all soldering).
>
> I would also like to point out something else about the technique given in
> the link below. Bake out! One real issue in SMT soldering is that IC's
> have to be baked out if they've been sitting in a normal environmnet
> (humidity) since the epoxy absorbs water. The water then gets heated by
> the IR reflow process/oven and can cause the IC to crack. The way around
> this is to heat the IC/components gently to above 100 deg C (125 deg C is
> OK). This bkes out the water. USually in an industrial process this is
> done for about an hour or 2. The IC's are then sealed in a waffle tray
> and bag with anhydrous silicone crystals to make sure no water gets
> reabsorbed. You shoudl only be wary of this if your IC's have been lying
> around in a damp warm atmosphere for a few days. For normal prototyping
> this is not so much of a problem.
>
> "w9gb" <onw9mapsgb@no.arrl.spam.net> wrote in message
> news:Q_vrd.178384$HA.36082@attbi_s01...
>> Have you seen my new soldering iron?
>> http://www.seattlerobotics.org/encoder/200006/oven_art.htm
>>
>> w9gb
>>
>>
>> "Tim Wescott" <tim@wescottnospamdesign.com> wrote in message
>> news:10qrpaakl83j98d@corp.supernews.com...
>>> Airy R. Bean wrote:
>>>> That certainly matches my experience, which I had

>>>> put down to being supplie dfrom a reject batch.
>>>>
>>>> So, what can we do as Radio Hams to prevent such
>>>> a problem?
>>>>
>>>> How hot does the whole board have to be raised before
>>>> applying a solfering iron? Would a hairdryer do?
>>>>
>>>> "Terry Given" <my_name@ieee.org> wrote in message
>>>> news:k1grd.19852$9A.331279@news.xtra.co.nz...
>>>>
>>>>>Larry Brasfield wrote:
>>>>>
>>>>>>Hand soldering can be very hard on SMD ceramic capacitors.
>>>>>>The high temperature gradiant created by applying heat suddenly
>>>
>>> --snip--
>>>
>>>>
>>>>
>>> Folks are starting to experiment with reflow soldering in toaster ovens.
>>> I've read good reports on the web, but have absolutely no personal
>>> experience nor have I even talked to someone who's done it, so I can't
>>> vouch for it. One of these days I'll give it a try, in the meantime you
>>> can search on toaster oven reflow and get a slew of pages.
>>>
>>> There's at least one company (www.pcbexpress.com) who'll even make
>>> prototype stencils for your solder paste, although for stuff that's not
>>> too fine you can dispense paste from a syringe.
>>>
>>> --
>>>
>>> Tim Wescott
>>> Wescott Design Services
>>> http://www.wescottdesign.com
>>
>>
>
>

3961. Re: Metal film resistors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-03 02:38:40 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10qvkdl6ea4jk85@corp.supernews.com>
Source record: 21845

The idea was to measure the coated resistor under exactly the same conditions as the regular one, so couldn't you just use exactly the same setup as before?

Roy Lewallen, W7EL

Ian White, G3SEK wrote:
> Roy Lewallen wrote:
>
>> Ian, if it's not too much trouble, I'd be very interested in how the
>> measured inductance compares to that of the resistor body/leads only.
>> I'd think that could be done by coating a similar-size resistor with
>> conductive paint or foil and measuring with the same method. The
>> difference between this measurement and the one you made would then
>> show how much inductance is due to the spiral element, and would
>> represent the minimum possible inductance for that resistor body type
>> and lead length.
>>
> I could certainly do that, because Duncan has supplied pairs of
> resistors: one in original condition, and the other with the coating
> cleaned off, just ready for painting.
>
> However, the difference in inductance is going to be very small, and I'd
> need to build a test jig that can keep other stray inductances under
> control.
>
> Over the weekend, maybe...
>
>

3962. Re: Metal film resistors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-03 07:37:59 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <MBCdJJEXfBsBFAfp@ifwtech.co.uk>
Source record: 21843

Roy Lewallen wrote:
>The idea was to measure the coated resistor under exactly the same
>conditions as the regular one, so couldn't you just use exactly the
>same setup as before?
>
Afraid not... In the present setup, the main contribution to the total inductance comes from the long, floppy resistor wires, and I couldn't guarantee not to disturb their configuration while applying conductive paint to the resistor.

To get a reliable answer, I'd need to reduce the lead length and make the whole thing mechanically more stable.

>
>Ian White, G3SEK wrote:
>> Roy Lewallen wrote:
>>
>>> Ian, if it's not too much trouble, I'd be very interested in how the
>>>measured inductance compares to that of the resistor body/leads only.
>>>I'd think that could be done by coating a similar-size resistor with
>>>conductive paint or foil and measuring with the same method. The
>>>difference between this measurement and the one you made would then
>>>show how much inductance is due to the spiral element, and would
>>>represent the minimum possible inductance for that resistor body type
>>>
>>>
>> I could certainly do that, because Duncan has supplied pairs of
>>resistors: one in original condition, and the other with the coating
>>cleaned off, just ready for painting.
>> However, the difference in inductance is going to be very small, and
>>I'd need to build a test jig that can keep other stray inductances
>>under control.
>> Over the weekend, maybe...
>>

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

3963. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____ egedduqy

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-03 10:27:56 UTC
From: Dan/W4NTI <w4nti@get>
Message-ID: <McXrd.2358$Va5.1269@newsread3.news.atl.earthlink.net>
Source record: 21842
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

"Walt Davidson" <g3nyy@despammed.com> wrote in message
news:r3uvq0ltofhv6f2t82all52ki0l2hhu5lq@4ax.com...
> On Thu, 02 Dec 2004 18:01:26 -0700, Sir Cumference <me@this.ten>
> wrote:
>
> >If the US had not become involved in WWII you Brits would be speaking
> >German today. There was no way England would have defeated Hitler
> >without the US help.
>
> Scotland would have beaten them, though.
>
> --
> Walt Davidson Email: g3nyy @despammed.com

Actually it was the Japanese that caused Hitlers defeat. Think about it.
If Japan would not have attacked the USA, Hitler would not have had to
declare war on the USA. Which would have given him a year or two more to
work on the USSR. And maybe, just maybe, hold onto Africa and thus giving
him a serious shot at winning it.

But...the USA came in and gave him another front to contend with. Basically
the Allies got lucky.

Dan/W4NTI

3964. For Sandra Smith about InfoRelation.com

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-03 16:29:28 UTC
From: inforelationX@yahoo.com
Message-ID: <5a99ce01.0412030829.7c538604@posting.google.com>
Source record: 21748

Hallo,

I have visited InfoRelation.com and I would like to thank you for drawing
my attention to this service ;-). The idea of connecting demand
and supply for info, knowledge etc is great! Thanks to this I was able
to find an expert in the field of my interest and hobby.
As regards your advertisement I think that perhaps you offer too much
money to the members of the projetc team ;-).

Best regards,
Donald Martin

3965. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____ egedduqy

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-04 03:44:37 UTC
From: Dave Holford <mylastname@deletethis.sympatico.ca>
Message-ID: <moasd.28997$Ad3.2094472@news20.bellglobal.com>
Source record: 21749
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

"Walt Davidson" <g3nyy@despammed.com> wrote in message
news:r3uvq0ltofhv6f2t82all52ki0l2hhu5lq@4ax.com...
> On Thu, 02 Dec 2004 18:01:26 -0700, Sir Cumference <me@this.ten>
> wrote:
>
> >If the US had not become involved in WWII you Brits would be speaking
> >German today. There was no way England would have defeated Hitler
> >without the US help.
>
> Scotland would have beaten them, though.
>
> --
> Walt Davidson Email: g3nyy @despammed.com

The Scots wouldn't have even had to fight - just the sight and 'sound' of
them coming would have been enough.

Dave

3966. FA: UTC 30 watt modulation transformer

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-04 04:54:47 UTC
From: WH <radio@my.net>
Message-ID: <juydnbh3q5xN2izcRVn-rA@gbronline.com>
Source record: 21750

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=5735724892

3967. ICOM 735 mods

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-04 14:17:27 UTC
From: ab <abracadabra@hotmail.com>
Message-ID: <_Fjsd.1050$EI1.660@reader1.news.jippii.net>
Source record: 21751

hi!
I made a few mods to my Good Ol' Icom 735 and it's now called Icom 735 PRO, still going strong since late 1980. A few I found on the internet, but the filter mods I have not seen anywhere.

Here is a list of what I have done!

- unlock mod: transmit outside the amateur bands.
- change squelshpot for the rfgain slide: very convenient in use
- change rf attenuator from -20dB --> -10dB: -20dB is really too much
- check and modify PLL time constant: if you have a late model, the mod is needed. It results in less spurious signals.
- check the solderings for antenna and rx connector.
- replace the lower IF (455kHz) SSB-filter and add a new 455kHz narrow CW-filter, 500Hz or 250Hz.

This last mod needs some skills in electronics, but makes wonders to the receiver compared to the barndoor-wide original filters. I use the big 455kHz x-tal filters from Yeasu FT-1000. 2kHz SSB filter and 500Hz CW filter. They just fit in between the main board and the front panel. If you don't like the narrow 2kHz on SSB, you can use the 2.4kHz wide if you can find one. 2kHz is recommended for contest use in a any case...

I'd love to hear if you can add something to this list!

cheers,
cb

ps
I love these old more or less analog radios where it's still poosible to make repairs at home and mods and don't have to look for firmware upgrades. A radio is a radio, not a computer :) (just changing the PA transistors on my Very Old (1978) TR-7 to get it running again)

pps
I also rebuilt my Old (mid eighties) Dentron GLA-1000B. Not much left of the original construction. Added 160m, changed the very expensive original tubes etc etc...400W

key down output on all bands from 160m to 10m including
WARC bands. Nice small package and cheap compared to
vfets, hi!

3968. FT-902 intermittent RX problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-04 17:42:37 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <ict3r051vrlcbc31agtso0kud5rtlgbdb0@4ax.com>
Source record: 21752

It seems to be a problem with intermittent contact in antenna relay or attenuator, so I wonder if somebody has some experience with softening voltage for switches and relays?
The relay and attenuator for FT-901/902 is shown on
http://home.online.no/~la8ak/93a.htm
(perhaps somewhat bad quality when you don't know already what it is?)
A simplified circuit diagram is shown. Decoupling capacitors are not shown. Wonder what sort of softening current is needed for some improvement? Suppose 13.5V is a practical limit to avoid too much current transient.

73
Jan-Martin
LA8AK

J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

3969. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____ egedduqy

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-04 18:47:30 UTC
From: Me <Me@shadow.orgs>
Message-ID: <Me-CAD919.09474004122004@netnews.worldnet.att.net>
Source record: 21753
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

In article <moasd.28997$Ad3.2094472@news20.bellglobal.com>,
"Dave Holford" <mylastname@deletethis.sympatico.ca> wrote:

> The Scots wouldn't have even had to fight - just the sight and 'sound' of
> them coming would have been enough.
>
> Dave

actually the "Smell" of them would do in 99% of the opposition......

Me

3970. Re: Tesla Coils

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-04 19:09:59 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cot227fga1@titan.btinternet.com>
Source record: 21754

The essential difference between a Tesla coil and all the others, such as ignition coils, is that the Tesla coil is designed to makes full use of a high coil Q.

Coil Q = Coil Reactance / resistance.

i.e., it makes use of the resonant rise in volts across a tuned circuit with high inductance, low (self) capacitance and low resistance.

It has to be physically large to obtain a low wire resistance combined with a high inductance of many turns. In addition, of course, the large physical size enables very high voltages without flash-over.

Optimum resonant frequencies (very non-critical) for home constructors are between 50 and 150 KHz. The lower the frequency the higher the voltage. Use a ball or a thick ring on the top to minimise corona discharge.

It's as simple as that. I hope this description will enable you to make your own Tesla coils. But in this day and age they are mainly of educational and entertainment value. Perhaps they always were. Tesla was a flashing-light with bangs, circus showman without knowing exactly what he was doing.

Ingenious nevertheless. But perhaps not quite in the same class as Edison. Even Edison and people like Marconi did not know exactly what they were about.

But we should be very grateful to the few workers, the willing slaves of technology, between 1880 and 1905 who dragged the human race, often at great personal disadvantage and expense to themselves, away from the feudal age into the present age of electronics.

The $64,000 question : what is the human race, you stupid set of succeeding genocidal suckers, to do with your rich inheritance?

Too late to ask Tesla.

Reg, G4FGQ

3971. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____ egedduqy

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-04 20:55:17 UTC
From: The Eternal Squire <eternalsquire@comcast.net>
Message-ID: <W62dnUWuMe6ouS_cRVn-pA@comcast.com>
Source record: 21755
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

```
Dave Holford wrote:
> "Walt Davidson" <g3nyy@despammed.com> wrote in message
> news:r3uvq0ltofhv6f2t82all52ki0l2hhu5lq@4ax.com...
>
>>On Thu, 02 Dec 2004 18:01:26 -0700, Sir Cumference <me@this.ten>
>>wrote:
>>
>>
>>>If the US had not become involved in WWII you Brits would be speaking
>>>German today. There was no way England would have defeated Hitler
>>>without the US help.
>>
>>Scotland would have beaten them, though.
>>
>>--
>>Walt Davidson Email: g3nyy @despammed.com
>
>
> The Scots wouldn't have even had to fight - just the sight and 'sound' of
> them coming would have been enough.
>
> Dave
>
>

And the smell!!! I mean, don't they eat lots of haggis? :) :) :)

The Eternal Squire
```

3972. Re: Tesla Coils

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-04 21:25:50 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20041204162550.08086.00001597@mb-m05.aol.com>
Source record: 21756

> Tesla was a
>flashing-light with bangs, circus showman without knowing exactly what he
>was doing.

That statement really shows the magnitude of your knowledge and intelligence.
So far he has no match in achievements, going from turbines, AC to RF.

Pathetic picture of your knowledge of biggest engineering genius Dr. Nikola
Tesla.

Yuri, K3BU

3973. health brew - fortifying beer with vitamins/minerals

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-04 23:26:47 UTC
From: Sherman <sherman@aol.com>
Message-ID: <vnh4r0hqso3p3o1qh7ak9hmucqla8b7641@4ax.com>
Source record: 21757

Has anyone seen any data that says you can fortify your suds with
vitamins, minerals? I'm interested if there's any way to do that.
Maybe the only way is to put fortified breakfast cereal in your mash?
;)

S

3974. Re: Tesla Coils

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-04 23:37:58 UTC
From: default <none@defaulter.net>
Message-ID: <e4f4r0d7540ucrtvnlt73f7rbfcpvhkv6r@4ax.com>
Source record: 21758

On Sat, 4 Dec 2004 19:09:59 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>It's as simple as that. I hope this description will enable you to make
>your own Tesla coils. But in this day and age they are mainly of educational
>and entertainment value. Perhaps they always were. Tesla was a
>flashing-light with bangs, circus showman without knowing exactly what he
>was doing.

Tesla was a genius cruising through life, having fun, without caring
or worrying about the ramifications of his toys.

>Ingenious nevertheless. But perhaps not quite in the same class as Edison.
>Even Edison and people like Marconi did not know exactly what they were
>about.

Not in Edison's class. A class an order of magnitude above Edison
perhaps. Edison and Marconi were more interested in profiting from
their inventions (or their refinements of the inventions of others).
They can be honored for their commercialization of inventions and
bringing the ideas out of the laboratory. Thomas Edison had a lot in
common with Bill Gates in that respect. Tesla probably understood his
inventions better - to his way of thinking the induction motor and
three phase power were so obvious they didn't warrant much discussion
or interest.

>
>But we should be very grateful to the few workers, the willing slaves of
>technology, between 1880 and 1905 who dragged the human race, often at great
>personal disadvantage and expense to themselves, away from the feudal age
>into the present age of electronics.
>
>The $64,000 question : what is the human race, you stupid set of succeeding
>genocidal suckers, to do with your rich inheritance?

Many of us fall into ruts and become worker bees. From birth we are
programmed to seek safe secure ruts . . . Some of us just cruise
through life. The "successful" apply the efforts of others. Little
is done with the "betterment of mankind" as its real justification.

Humans just continue to react/respond to the conditioning of millions
of years of evolution. We can see that something better should or
could be done with what we have. But we don't.

All of our flaws and gifts are what enabled us to survive. We still
play those cards - even though we changed the game substantially in
the last 4,000 years.

>
>Too late to ask Tesla.

Now that would be interesting.

>Reg, G4FGQ
>

Playing with Tesla coils has been very educational and has altered my perspective a great deal. For instance, I groked the concept of SWR with a detached cerebral understanding until I saw it in a Tesla coil. Ditto harmonics. I understood that inductance is related to the square of the turns, but it was so much book learning until I built an induction coil.

Likewise I thought the 1600's to 1900's were the dark ages scientifically - then I read some of the old masters and realized that they were very smart cookies. They had to deal with concepts that they didn't have the language to describe, yet they still understood what was happening. They frequently resorted to mechanical models in an attempt to make it physical and understandable. Imagine what they could do with the oscilloscope I take for granted.

I rank Hertz, Gilbert, Maxwell, Kelvin and Tesla among the gods, and Edison and Marconi among the mortals.

And . . . if you go back just a few more millennia, the inventors of musical instruments were dealing with the same concepts that Tesla and Marconi were playing with. Likewise the first engineers trying to manage crop irrigation or heat a bath. Doubtless they were equally brilliant; they just didn't have the base to build on.

3975. Re: health brew - fortifying beer with vitamins/minerals

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-05 00:07:46 UTC
From: Noise From Afar <NFA@wayoutdare.net>
Message-ID: <mjssd.195463$hj.30114@fed1read07>
Source record: 21759

Ah sorry but this is a news group about building Amateur Radio equipment,
and we call it homebrew.

Not about making beer.

Check your news group browser for one about homebrew beer

Sound good tho (;-)

--
ruido de ic&#65533;gnito

"Sherman" <sherman@aol.com> wrote in message
news:vnh4r0hqso3p3o1qh7ak9hmucqla8b7641@4ax.com...
> Has anyone seen any data that says you can fortify your suds with
> vitamins, minerals? I'm interested if there's any way to do that.
> Maybe the only way is to put fortified breakfast cereal in your mash?
> ;)
>
> S

3976. Re: health brew - fortifying beer with vitamins/minerals

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-05 01:35:26 UTC
From: default <none@defaulter.net>
Message-ID: <n3o4r0tc40uekcpfnp67hdulnqqjd6f2ho@4ax.com>
Source record: 21760

On Sat, 04 Dec 2004 15:26:47 -0800, Sherman <sherman@aol.com> wrote:

>Has anyone seen any data that says you can fortify your suds with
>vitamins, minerals? I'm interested if there's any way to do that.
>Maybe the only way is to put fortified breakfast cereal in your mash?
>;)
>
>S
Beer, particularly home brewed beer, is very high in vitamins
naturally. When one buys a "B" complex tablet, one is buying the
dregs of a brewer's fermentation vessel.

It is not required (or allowed in the US) to label the nutrient value
of beer. People might actually start drinking it for health reasons.
Yikes!

Off topic for sure. There does seem to be a positive correlation
between engineering and beer brewing. One for alt.beer.home-brewing
or alt.homebrewing

From http://www.restaurantreport.com/departments/b_health.html

And if anyone is curious about the specific vitamin content of
beer, they need look no further than the legendary nutritional
information panel that appeared briefly on the six pack
carriers of Grant's Scottish Ale from Yakima, Washington.

Legendary? That's right, when the brewery made their the
nutritional information public back in the early 90s, (after all,
even bottled waters are required to display it), they got a call
from the Feds asking them to cease or desist, or something
like that. To this day, no beer carries any nutritional
information on its packaging.

3977. Re: Metal film resistors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-05 03:02:30 UTC
From: Brian - KB9BVN <kb9bvn@arrl.net>
Message-ID: <aTusd.1678$yr1.683@newsread3.news.pas.earthlink.net>
Source record: 21761

I use them with no issues that I know of.

Perhaps someone else has the mathematical and physical explanation.

I measured a few with my LC meter in the L mode and was unable to measure
any L.

"James Bond" <justmereally@hotmail.com> wrote in message
news:co2lm4$c9l$1@titan.btinternet.com...
> are metal film resistors wirewound or not? I've been trying to find this
one
> out. Someone who I know says they're not so are suitable for RF but Maplin
> catalog seems to say they are.
>
>
> someone please help!
>
> dr. x
>
>
> ---
> Outgoing mail is certified Virus Free.
> Checked by AVG anti-virus system (http://www.grisoft.com).
> Version: 6.0.799 / Virus Database: 543 - Release Date: 22/11/2004
>
>

3978. Re: Metal film resistors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-05 11:01:05 UTC
From: Clarence <no@No.com>
Message-ID: <RTBsd.54757$QJ3.10437@newssvr21.news.prodigy.com>
Source record: 21762

"Brian - KB9BVN" <kb9bvn@arrl.net> wrote in message
news:aTusd.1678$yr1.683@newsread3.news.pas.earthlink.net...
> I use them with no issues that I know of.
>
> Perhaps someone else has the mathematical and physical explanation.
>
> I measured a few with my LC meter in the L mode and was unable to measure
> any L.
>
> "James Bond" <justmereally@hotmail.com> wrote in message
> news:co2lm4$c9l$1@titan.btinternet.com...
> > are metal film resistors wirewound or not? I've been trying to find this
> one
> > out. Someone who I know says they're not so are suitable for RF but Maplin
> > catalog seems to say they are.
> >
> > someone please help!
> >
> > dr. x

Just a simple explanation. Not a comprehensive review. I do not know what
meter, nor the circuit.

Your depending on the circuit in your meter.
Some Inductance measurement circuits need the resistive component to be
canceled out (balanced by a bridge) to read the inductance. It doesn't mean it
has no inductance, only that he resistance values is much higher than the
reactance of the inductor. Therefore the meter sees the resistance only.

To make it even worse, not all MF resistors are inductive.

3979. Re: Looking for roller inductors

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-05 11:40:01 UTC
From: ON5MJ <my_call_sign@skynet.be>
Message-ID: <41b2f378$0$29511$ba620e4c@news.skynet.be>
Source record: 21763

Thank you KN6WH,

I thought to this solution before but there are some problems: 1. My wyfe wouldn't accept a kind of double "laundry cord" in the house (plus all the hardware) - 2. walls are full of metal pipings (central heating, water, electric outlets, etc) - 3. passing properly through stone walls (sometimes more than 2 feet thick) is not that easy. This means that an indoor ribbon is automatically not acceptable. So the only solution is to convert balanced to unbalanced line. Outdoor I will use a balanced ladder line (home made) and a remote tuner (home made too) and indoor coaxials would be accepted provides they are installed in the corners and painted in white. This is why my original question was about how to find roller coils.
Somebody here gave me some addresses but warned me about the price. It was true: I was asked 500 euros for two new items. Hoppefully I have found two identical 35 ΅H roller coils (second hand) in France for 30 euros each.

73 de ON5MJ - Jacques.

3980. Re: health brew - fortifying beer with vitamins/minerals

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-05 16:17:28 UTC
From: Killer Smurfs <nospam@nospam.com>
Message-ID: <31gqk6F3adfvpU1@individual.net>
Source record: 21764

"Sherman" <sherman@aol.com> wrote in message
news:vnh4r0hqso3p3o1qh7ak9hmucqla8b7641@4ax.com...
> Has anyone seen any data that says you can fortify your suds with
> vitamins, minerals? I'm interested if there's any way to do that.
> Maybe the only way is to put fortified breakfast cereal in your mash?
> ;)
>
> S

If you sell it publicly, you have to get it FDA approved as it is now a
"food", and label it IAW them.
That is why the industry has not put in B vitamins into alcoholic drinks,
unfortunately.

This is the wrong newsgroup for you.

3981. ft-200 + freq counter - help wanted!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-05 19:22:37 UTC
From: "Janusz M." <maslan6@poczta.onet.wytnij.pl>
Message-ID: <covn6o$60d$1@atlantis.news.tpi.pl>
Source record: 21765

Hello.
Anyone knows how/where plug in a frequency counter in ft-200 ?
My freq counter have option (substraction and adding to IF frequency).
Manual and schematics are at address below:
ftp://bama.edebris.com/bama/yaesu/ft200/ft200man.djvu

--
73! Janusz SQ5IZX

3982. Re: FT-902 intermittent RX problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-05 22:16:38 UTC
From: Highland Ham <abcgm0csz.kn6whxyz@abcntlworldxyz.com>
Message-ID: <aNLsd.2047$Kg4.1051@newsfe4-win.ntli.net>
Source record: 21766

> It seems to be a problem with intermittent contact in antenna relay or
> attenuator, so I wonder if somebody has some experience with softening
> voltage for switches and relays?
> The relay and attenuator for FT-901/902 is shown
==========
Don't know type of relay in FT-902 .
If contacts can be accessed by removing cover ,try to slide a piece of paper drenched in contact cleaner a few times in between contacts .
I remember that this method was successful when I had a FT- 400 (a valve transceiver from the late 60s) ,my first transceiver which I used between 1985 and 1991 .

Frank GM0CSZ / KN6WH

3983. Re: health brew - fortifying beer with vitamins/minerals

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-05 23:19:19 UTC
From: Sherman <sherman@aol.com>
Message-ID: <sj57r0975kinqs15dvsc3r4ctkinvs3jg2@4ax.com>
Source record: 21767

Sorry, wrong group!

rec.crafts.brewing group is what i intended to post in, although I got answers here! Thanks!

Making your own beer is remarkably easy and yes it is better for you. Better tasting too, and cheaper. I also am a shortwave geek (SWLer). Drop by for a listen and a pint.

S

On Sat, 04 Dec 2004 20:35:26 -0500, default <none@defaulter.net> wrote:

>On Sat, 04 Dec 2004 15:26:47 -0800, Sherman <sherman@aol.com> wrote:
>
>>Has anyone seen any data that says you can fortify your suds with
>>vitamins, minerals? I'm interested if there's any way to do that.
>>Maybe the only way is to put fortified breakfast cereal in your mash?
>>;)
>>
>>S
>Beer, particularly home brewed beer, is very high in vitamins
>naturally. When one buys a "B" complex tablet, one is buying the
>dregs of a brewer's fermentation vessel.
>
>It is not required (or allowed in the US) to label the nutrient value
>of beer. People might actually start drinking it for health reasons.
>Yikes!
>
>Off topic for sure. There does seem to be a positive correlation
>between engineering and beer brewing. One for alt.beer.home-brewing
>or alt.homebrewing
>
>
>From http://www.restaurantreport.com/departments/b_health.html
>
>And if anyone is curious about the specific vitamin content of
>beer, they need look no further than the legendary nutritional
>information panel that appeared briefly on the six pack
>carriers of Grant's Scottish Ale from Yakima, Washington.
>
> Legendary? That's right, when the brewery made their the
>nutritional information public back in the early 90s, (after all,
>even bottled waters are required to display it), they got a call
>from the Feds asking them to cease or desist, or something

>like that. To this day, no beer carries any nutritional
>information on its packaging.

3984. Re: ft-200 + freq counter - help wanted!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-05 23:23:36 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <h167r0lnaihm8jf1p5qsm44r51g1016k4p@4ax.com>
Source record: 21768

On Sun, 5 Dec 2004 20:22:37 +0100, "Janusz M."
<maslan6@poczta.onet.wytnij.pl> wrote:

>Hello.
>Anyone knows how/where plug in a frequency counter in ft-200 ?
>My freq counter have option (substraction and adding to IF frequency).
>Manual and schematics are at address below:
> ftp://bama.edebris.com/bama/yaesu/ft200/ft200man.djvu

the only possible way is to measure the VFO and consider that the BFO
freq for LSB and USB makes some difference, possibly 1.8kHz

J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

3985. Re: ft-200 + freq counter - help wanted!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-06 19:56:56 UTC
From: Highland Ham <abcgm0csz.kn6whxyz@abcntlworldxyz.com>
Message-ID: <cQ2td.208$dE4.172@newsfe2-win.ntli.net>
Source record: 21769

"Janusz M." <maslan6@poczta.onet.wytnij.pl> wrote in message
news:covn6o$60d$1@atlantis.news.tpi.pl...
> Hello.
> Anyone knows how/where plug in a frequency counter in ft-200 ?
> My freq counter have option (substraction and adding to IF frequency).
> Manual and schematics are at address below:
==========
Janusz, I have the manual for the FT-200 with the circuit diagramme.
The frequency counter input should be connected with a less than 10 pf
capacitor to the common switch contact of switch deck 'S1f ' being the
output
of V3(6CB6) , the premixer.
This output is representative for the operating frequency.
However the frequency counter offset is NOT the same for each band
I don't know whether your FT-200 has all the sub-bands implemented ,but I
shall list them all :

80 m 3.5 - 4.0 MHz premix freq range 5.0 - 5.5 MHz hence
freq counter offset : minus 1.5 MHz
40 m 7.0 - 7.5 MHz premix freq range 16.0 - 16.5 MHz hence
freq counter offset : minus 9.0 MHz
20 m 14.0 - 14.5 MHz premix freq range 5.0 - 5.5 MHz hence
freq counter offset : plus 9.0 MHz
15 m 21.0 - 21.5 MHz premix freq range 30.0- 30.5 MHz hence
freq counter offset : minus 9.0 MHz
10 m 28.0 - 28.5 MHz premix freq range 37.0- 37.5 MHz hence
freq counter offset : minus 9.0 MHz
28.5 -29.0 MHz premix freq range 37.5- 38.0 MHz
hence freq counter offset : minus 9.0 MHz
29.0 -29.5 MHz premix freq range 38.0- 38.5 MHz
hence freq counter offset : minus 9.0 MHz
29.5 -30.0 MHz premix freq range 38.5- 39.0 MHz
hence freq counter offset : minus 9.0 MHz

So you need 3 different offsets namely minus 1.5 MHz for 80 m band , plus
9.0 MHz for the 20 m band
and for all the other bands the offset is minus 9.0 MHz.
Suggest you use the smallest coupling capacitor necessary to excite the
frequency
counter and ensure the outgoing lead is properly screened and insulated ie
thin coax
(screen earthed on 1 side only to prevent an earth loop)
As a small 'capacitor' you can possibly use a short piece of (thin) coax.

Good luck

Frank GM0CSZ / KN6WH

3986. G4CLF Board / Plessey IC's

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-06 20:20:29 UTC
From: "Adrian Rees (M1LCR)" <rees.a@btconnect.com>
Message-ID: <cp2eucggh1@titan.btinternet.com>
Source record: 21770

Anyone got a G4CLF Board they want to part with ?
And the following IC's:
SL1612

SL1640 or SL1641

SL1621

SL6310

SL1626 or SL6270

If sp email me off list: rees.a@btconnect.com

Thanks

3987. Re: 8877 & 3CX3000A7

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-06 20:53:37 UTC
From: "Adrian Rees (M1LCR)" <rees.a@btconnect.com>
Message-ID: <cp2gshjaj1@titan.btinternet.com>
Source record: 21771

Got any 8875's ?

"The Tube Man" <thetubeman@earthlink.net> wrote in message
news:Y%Grd.1249$714.448@newsread2.news.atl.earthlink.net...
>
> I have two new EIMAC 8877/3CX1500A7/YU209
> for sale - $625 each
>
> Also, I have one new 3CX3000A7 - $685
>
>
> thetubeman@earthlink.net
>
>

3988. FOR SALE - A LONG LIST

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-06 22:24:09 UTC
From: nedrog@aol.comNOSPAM
Message-ID: <20041206172409.12265.00000316@mb-m28.aol.com>
Source record: 21772

QTY DESCRIPTION

1 60 FT ROHN 25g TOWER w/pointed top section
and rotator plate
1 ROHN 25g BASE PLATE
1 ROHN 25g, HB25CS, HOUSE BRAKET
1 Icom 551 6m all mode transceiver (works)
1 Icom 211 2m all mode transceiver (works)
1 Heathkit SB200 Amplifier (220v)
1 Ham M Rotator (cked by Norm)
1 Tail-twister Rotator (cked by Norm)
1 Cushcraft R7000 Vertical (40-6)
1 Cushcraft 80m kit for R7000 (never assembled)
1 LJE GP1, RADIAL PLATE FOR 2" MAST, 24 RADIALS
1 Minkota, mdl: 765 MX, 12v remote trolling Motor
(needs new prop)
1 18" Golden Rule for tournament fishing
1pr Replacement 8" Steel Wheels w/rubber tires
3ea ADULT MDL: KA1, KAPOK BUOYANT VEST,
(never in water), LIFE JACKETS.
1 Micronta FS/SWR Meter
1 B&W Dipole Connector [V shape]
1 Bag of various (approximately 10) Xtals, FT243
variety, HAM band frequencies.
1 3/8x24, Spring mount with 2 springs,
11ea Aluminum panels of sorts, 6"x12"x1/8"
3ea Packages of NICE-DUCT, brown color,
3/8"Hx5/8"Wx60"L, each package has 5 pc
totaling 25 feet.
1 12v WHINCH
2ea 50FT ROLLS OF RG6, 75 OHM COAX WITH "F"
CONNECTORS
1 25FT ROLL OF RG6, 75 OHM WITH CONNECTORS
1 CUSHCRAFT BASE RING FOR 10M RINGO
1 SHAKESPEAR FIBERGLASS, 144-174Mhz ANT,
SINGLE HOLE MOUNT
1 QUADSTAR 2M HALO
1 Motorola, MITREK, MDL: T81JJA4900BK, WITH
CONTROL & POWER CABLE - NO CONTROL BOX,
NO MIC OR BOOK (AS IS NOT TESTED)
1 Radio Shack, 8", Antenna Mast Wall Mounting BKT
1 Motorola, MICOR, mdl: 02033a, WITH BOTH CONTROL
CABLE & CONTROL HEAD AND POWER CORD (NO
MIC OR BOOK) (AS IS NOT TESTED)

1 AMPEX 8" REEL TO REEL TAPE RECORDER
1 INTERMATIC TIME CLOCK, 110v
1 SCHUMACHER 10/30/50, BATTERY CHARGER, 12v
1 CROUSE-HINDS 3 LAMP, (RED/YELLOW/GREEN), TRAFFIC
SIGNAL - ANTIQUE - WORKS GREAT!
1 AIPHONE AH108, 10W, 8 OHM, HORN SPKR.
43ea INNOVATIVE SIMPLICITY, MDL: CREST, 2-JACK WALL
PLATES WITH THE JACKS FOR TELCO
2ea SMALL PEDESTAL CAMERA MOUNTS
8ea GARDEN HOSE WALL BRACKETS
1 MOTOROLA, HANDIE-TALKIE POCKET RECEIVER,
MDL: HO3ANC-1000A, FREQ: 152MHZ, NEEDS NEW
BATTERIES, (NO MANUALS) (ANTIQUE)
1 MOTOROLA, HT TRANSMITTER, MDL: Z23NAC-1000A,
WITH MOTOROLA LEATHER CASE & MICROPHONE
AND COLLASPABLE ANTENNTA, NEEDS NEW
BATTERIES,(NO MANUALS) (ANTIQUE)
1 MOTOROLA, HT220, BRICK, 6 CH, W/MOTOROLA
SPEAKER-MIC, ON HAM BANDS, NEEDS NEW
BATTERY.(NO MANUALS)
1 MOTOROLA DESK CHARGER FOR HT220
(NO MANUALS)

If you are interested in any of these items, please send me an email with your offer. If I think it is reasonable, we will do business. If not then I will tell you.

I am in Montgomery County, Maryland, and would perfer not to have to ship, but if I do - please figure postage from 20895.

73's

Howard W3CQH

3989. Re: FOR SALE - A LONG LIST

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-06 23:25:11 UTC
From: Jim Douglas <james.douglas@genesis-software.com>
Message-ID: <Rf6dnZPjeMg0dCncRVn-gQ@comcast.com>
Source record: 21773

Any shortwave transmitter that work? Sorry don't know all the specifics
about this equipment?

james.douglas@genesis-softwareREMOVE.com

"w3cqh" <nedrog@aol.comNOSPAM> wrote in message
news:20041206172409.12265.00000316@mb-m28.aol.com...
> QTY DESCRIPTION
>
> 1 60 FT ROHN 25g TOWER w/pointed top section
> and rotator plate
> 1 ROHN 25g BASE PLATE
> 1 ROHN 25g, HB25CS, HOUSE BRAKET
> 1 Icom 551 6m all mode transceiver (works)
> 1 Icom 211 2m all mode transceiver (works)
> 1 Heathkit SB200 Amplifier (220v)
> 1 Ham M Rotator (cked by Norm)
> 1 Tail-twister Rotator (cked by Norm)
> 1 Cushcraft R7000 Vertical (40-6)
> 1 Cushcraft 80m kit for R7000 (never assembled)
> 1 LJE GP1, RADIAL PLATE FOR 2" MAST, 24 RADIALS
> 1 Minkota, mdl: 765 MX, 12v remote trolling Motor
> (needs new prop)
> 1 18" Golden Rule for tournament fishing
> 1pr Replacement 8" Steel Wheels w/rubber tires
> 3ea ADULT MDL: KA1, KAPOK BUOYANT VEST,
> (never in water), LIFE JACKETS.
> 1 Micronta FS/SWR Meter
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> 1 Bag of various (approximately 10) Xtals, FT243
> variety, HAM band frequencies.
> 1 3/8x24, Spring mount with 2 springs,
> 11ea Aluminum panels of sorts, 6"x12"x1/8"
> 3ea Packages of NICE-DUCT, brown color,
> 3/8"Hx5/8"Wx60"L, each package has 5 pc
> totaling 25 feet.
> 1 12v WHINCH
> 2ea 50FT ROLLS OF RG6, 75 OHM COAX WITH "F"
> CONNECTORS
> 1 25FT ROLL OF RG6, 75 OHM WITH CONNECTORS
> 1 CUSHCRAFT BASE RING FOR 10M RINGO
> 1 SHAKESPEAR FIBERGLASS, 144-174Mhz ANT,
> SINGLE HOLE MOUNT
> 1 QUADSTAR 2M HALO
> 1 Motorola, MITREK, MDL: T81JJA4900BK, WITH

> CONTROL & POWER CABLE - NO CONTROL BOX,
> NO MIC OR BOOK (AS IS NOT TESTED)
> 1 Radio Shack, 8", Antenna Mast Wall Mounting BKT
> 1 Motorola, MICOR, mdl: 02033a, WITH BOTH CONTROL
> CABLE & CONTROL HEAD AND POWER CORD (NO
> MIC OR BOOK) (AS IS NOT TESTED)
> 1 AMPEX 8" REEL TO REEL TAPE RECORDER
> 1 INTERMATIC TIME CLOCK, 110v
> 1 SCHUMACHER 10/30/50, BATTERY CHARGER, 12v
> 1 CROUSE-HINDS 3 LAMP, (RED/YELLOW/GREEN), TRAFFIC
> SIGNAL - ANTIQUE - WORKS GREAT!
> 1 AIPHONE AH108, 10W, 8 OHM, HORN SPKR.
> 43ea INNOVATIVE SIMPLICITY, MDL: CREST, 2-JACK WALL
> PLATES WITH THE JACKS FOR TELCO
> 2ea SMALL PEDESTAL CAMERA MOUNTS
> 8ea GARDEN HOSE WALL BRACKETS
> 1 MOTOROLA, HANDIE-TALKIE POCKET RECEIVER,
> MDL: HO3ANC-1000A, FREQ: 152MHZ, NEEDS NEW
> BATTERIES, (NO MANUALS) (ANTIQUE)
> 1 MOTOROLA, HT TRANSMITTER, MDL: Z23NAC-1000A,
> WITH MOTOROLA LEATHER CASE & MICROPHONE
> AND COLLASPABLE ANTENNTA, NEEDS NEW
> BATTERIES,(NO MANUALS) (ANTIQUE)
> 1 MOTOROLA, HT220, BRICK, 6 CH, W/MOTOROLA
> SPEAKER-MIC, ON HAM BANDS, NEEDS NEW
> BATTERY.(NO MANUALS)
> 1 MOTOROLA DESK CHARGER FOR HT220
> (NO MANUALS)
>
> If you are interested in any of these items, please send me an email with
your
> offer. If I think it is reasonable, we will do business. If not then I
will
> tell you.
>
> I am in Montgomery County, Maryland, and would perfer not to have to ship,
but
> if I do - please figure postage from 20895.
>
> 73's
>
> Howard W3CQH

3990. Re: FOR SALE - A LONG LIST

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-07 00:53:04 UTC
From: Dave <Devarim@hotmail.com>
Message-ID: <7951a9a1980a38765e71b27789b38499@news.meganetnews.com>
Source record: 21777

> Any shortwave transmitter that work? Sorry don't know all the specifics
> about this equipment?

If you are not able to glean from his list that NONE of these are 'shortwave transmitters' then I seriously doubt your ability to operate one. Stick with CB

JOE

> james.douglas@genesis-softwareREMOVE.com
>
> "w3cqh" <nedrog@aol.comNOSPAM> wrote in message
> news:20041206172409.12265.00000316@mb-m28.aol.com...
> > QTY DESCRIPTION
> >
> > 1 60 FT ROHN 25g TOWER w/pointed top section
> > and rotator plate
> > 1 ROHN 25g BASE PLATE
> > 1 ROHN 25g, HB25CS, HOUSE BRAKET
> > 1 Icom 551 6m all mode transceiver (works)
> > 1 Icom 211 2m all mode transceiver (works)
> > 1 Heathkit SB200 Amplifier (220v)
> > 1 Ham M Rotator (cked by Norm)
> > 1 Tail-twister Rotator (cked by Norm)
> > 1 Cushcraft R7000 Vertical (40-6)
> > 1 Cushcraft 80m kit for R7000 (never assembled)
> > 1 LJE GP1, RADIAL PLATE FOR 2" MAST, 24 RADIALS
> > 1 Minkota, mdl: 765 MX, 12v remote trolling
Motor
> > (needs new prop)
> > 1 18" Golden Rule for tournament fishing
> > 1pr Replacement 8" Steel Wheels w/rubber tires
> > 3ea ADULT MDL: KA1, KAPOK BUOYANT VEST,
> > (never in water), LIFE JACKETS.
> > 1 Micronta FS/SWR Meter
> > 1 B&W Dipole Connector [V shape]
> > 1 Bag of various (approximately 10) Xtals,
FT243
> > variety, HAM band frequencies.
> > 1 3/8x24, Spring mount with 2 springs,
> > 11ea Aluminum panels of sorts, 6"x12"x1/8"
> > 3ea Packages of NICE-DUCT, brown color,
> > 3/8"Hx5/8"Wx60"L, each package has 5 pc
> > totaling 25 feet.
> > 1 12v WHINCH

> > 2ea 50FT ROLLS OF RG6, 75 OHM COAX WITH "F"
> > CONNECTORS
> > 1 25FT ROLL OF RG6, 75 OHM WITH CONNECTORS
> > 1 CUSHCRAFT BASE RING FOR 10M RINGO
> > 1 SHAKESPEAR FIBERGLASS, 144-174Mhz ANT,
> > SINGLE HOLE MOUNT
> > 1 QUADSTAR 2M HALO
> > 1 Motorola, MITREK, MDL: T81JJA4900BK, WITH
> > CONTROL & POWER CABLE - NO CONTROL BOX,
> > NO MIC OR BOOK (AS IS NOT TESTED)
> > 1 Radio Shack, 8", Antenna Mast Wall Mounting
BKT
> > 1 Motorola, MICOR, mdl: 02033a, WITH BOTH
CONTROL
> > CABLE & CONTROL HEAD AND POWER CORD (NO
> > MIC OR BOOK) (AS IS NOT TESTED)
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> > 1 INTERMATIC TIME CLOCK, 110v
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> > 1 CROUSE-HINDS 3 LAMP, (RED/YELLOW/GREEN),
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> > SIGNAL - ANTIQUE - WORKS GREAT!
> > 1 AIPHONE AH108, 10W, 8 OHM, HORN SPKR.
> > 43ea INNOVATIVE SIMPLICITY, MDL: CREST, 2-JACK WALL
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> > WITH MOTOROLA LEATHER CASE & MICROPHONE
> > AND COLLASPABLE ANTENNTA, NEEDS NEW
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> > (NO MANUALS)
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> > If you are interested in any of these items, please send me an email
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> > offer. If I think it is reasonable, we will do business. If not then I
> will
> > tell you.
> >
> > I am in Montgomery County, Maryland, and would perfer not to have to
ship,
> but

> > if I do - please figure postage from 20895.
> >
> > 73's
> >
> > Howard W3CQH
>
>

3991. FA: Aluminum Slope-Top Project Box NOS

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-07 01:05:25 UTC
From: Tom <tfarl@iowatelecom.net>
Message-ID: <pl7td.525497$D%.203986@attbi_s51>
Source record: 21774
Cross-posted to: alt.ham-radio.marketplace,rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew,rec.radio.swap

For the home-brewer:

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=5736402207

Still in factory wrapper.

Made of rigid 3/32" aluminum, the dimensions are roughly 7" wide x 6"
deep (front-to-back). The height is about 3" in back, sloping to about 1
3/4" in front. Two-piece construction, the side-bottom-side piece is
medium blue wrinkle, the back-top-front piece is a smooth off-white.
Bottom feet and attaching hardware are included.

Vy 73 es best DX,
theponyengine

3992. Re: Tesla Coils

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-07 01:29:29 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <jf1ar0h03j0gjvujr2nna8fqa9tddhnlbq@4ax.com>
Source record: 21775

On Sat, 4 Dec 2004 19:09:59 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>The $64,000 question : what is the human race, you stupid set of succeeding
>genocidal suckers, to do with your rich inheritance?

Pass it on down to the next generation of suckers, Reg. Haven't you
noticed the pattern? It's been going on for *quite* a while...
--

"What is now proved was once only imagin'd." - William Blake, 1793.

3993. Re: Metal film resistors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-07 01:29:29 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <ie0ar0d4a4pkkdpeko5g0haa9ji7nu1fbq@4ax.com>
Source record: 21776

On Thu, 2 Dec 2004 23:20:40 +0000, "Ian White, G3SEK"
<G3SEK@ifwtech.co.uk> wrote:

What does a typical "test jig" consist of Ian? That's one thing that's
always puzzled me about these kind of measurements; particularly at
UHF++.
--

"What is now proved was once only imagin'd." - William Blake, 1793.

3994. FA: Vintage UTC Modulation Xfrmr

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-07 07:24:03 UTC
From: tw@emailaccount.com
Message-ID: <d7bc9941.0412062324.3aa31d80@posting.google.com>
Source record: 21778
Cross-posted to: alt.ham-radio.marketplace,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,alt.ham-radio.vhf-uhf

Commercial grade UTC CG-51AX push-pull driver transformer. For tube audio and modulator circuits; will drive a pair of 2A3 or 6L6 outputs:

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=5736702441

Hurry... auction ends soon.

3995. Re: Metal film resistors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-07 07:31:08 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <UkJLwXD8wVtBFA2u@ifwtech.co.uk>
Source record: 21779

Paul Burridge wrote:
>On Thu, 2 Dec 2004 23:20:40 +0000, "Ian White, G3SEK"
><G3SEK@ifwtech.co.uk> wrote:
>
>
>What does a typical "test jig" consist of Ian? That's one thing that's
>always puzzled me about these kind of measurements; particularly at
>UHF++.

One that minimizes unwanted or uncontrolled lead lengths. In general, one that is based on solid lumps of metal and large, broad, low-inductance conducting surfaces.

I had simply bent the resistor wires so that one end pushed into the centre of the VNA's N socket, and the other wire was literally tied onto the body of the socket. However, the measurement showed that most of the small inductance could be accounted for by those two wires - which you'd never leave as long as that in a practical layout.

To home in on the inductance of the resistor body itself, I'd have to build a jig that allows the wire lengths to be reduced almost to zero. Harold W4ZCB sent a picture of something he uses, which is just a brass plate soldered to the back of an SMA connector. The Device Under Test is then soldered directly between the centre pin and somewhere on the plate.

But I'm afraid my only visit to the workshop last weekend was to dump yet another cardboard box on the floor.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

3996. fixing a farnell L30 PSU help please

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-07 11:26:02 UTC
From: paul405 <nospam@ntlworld.com>
Message-ID: <ergtd.562$HQ3.361@newsfe3-win.ntli.net>
Source record: 21780

hi there
I wonder if anyone can help me .
I used to use a FARNELL L30 .05Ma power supply
for charging my NiCad's, very useful due to its current limiting
control however its quite old and unfornutally I have a problem with it
R27 has burnt out and I don't know what value it was
As its burnt and broken. and thus stopped working

and the large 1-ohm resistor dropped off with the heat
when the supply was accidentally short circuited
(Not by me, I but a friend. bugger)
I think it solders to the collector and emitter of the
oc36 can anyone confirm this ?

does anyone have a circuit diagram or a service manual
or can simply inform me what the value of resistor R27 is?

hope to hear from you soon
thanks

3997. Re: Metal film resistors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-07 12:34:42 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <en8br0tmks5c0c9en3630vttnuaivsc2m5@4ax.com>
Source record: 21781

On Tue, 7 Dec 2004 07:31:08 +0000, "Ian White, G3SEK"
<G3SEK@ifwtech.co.uk> wrote:

>To home in on the inductance of the resistor body itself, I'd have to
>build a jig that allows the wire lengths to be reduced almost to zero.
>Harold W4ZCB sent a picture of something he uses, which is just a brass
>plate soldered to the back of an SMA connector. The Device Under Test is
>then soldered directly between the centre pin and somewhere on the
>plate.

How about cutting the resistor's leads off completely and just
clamping it between say two 1" cube copper blocks? But then I guess
you would still have the problem of connecting it to the VNA. :-(
--

"What is now proved was once only imagin'd." - William Blake, 1793.

3998. Re: fixing a farnell L30 PSU help please

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-07 14:11:53 UTC
From: w9gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <JSitd.527770$D%.109104@attbi_s51>
Source record: 21782

"paul405" <nospam@ntlworld.com> wrote in message
news:ergtd.562$HQ3.361@newsfe3-win.ntli.net...
> hi there
> I wonder if anyone can help me .
> I used to use a FARNELL L30 .05Ma power supply
> for charging my NiCad's, very useful due to its current limiting
> control however its quite old and unfornutally I have a problem with it
> R27 has burnt out and I don't know what value it was
> As its burnt and broken. and thus stopped working
>
> and the large 1-ohm resistor dropped off with the heat
> when the supply was accidentally short circuited
> (Not by me, I but a friend. bugger)
> I think it solders to the collector and emitter of the
> oc36 can anyone confirm this ?
>
> does anyone have a circuit diagram or a service manual
> or can simply inform me what the value of resistor R27 is?
>
>
> hope to hear from you soon
> thanks
>
Have you tried Farnell ?
http://uk.farnell.com/jsp/home/homepage.jsp;jsessionid=1LUZNKK1DSU23QFIAEXCFE4AVAAS2IV3

Farnell InOne is a world-leading marketer and distributor of electronic and
maintenance, repair and operations (MRO) products. We offer our customers a
multi-channel choice for over 250,000 stocked products, providing a
comprehensive range of value-added services and tailored solutions to
support your business needs.

Farnell InOne is part of the Premier Farnell Group and belongs to the InOne
family of businesses. Including Newark InOne, the American based
market-leading electronics distributor and BuckHickman InOne, the UK's
leading distributor of industrial tools and supplies, the InOne family of
businesses work together across geographic and business boundaries.

3999. Re: Metal film resistors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-07 14:55:41 UTC
From: "Harold E. Johnson" <W4ZCB@mchsi.com>
Message-ID: <Nvjtd.527831$D%.321848@attbi_s51>
Source record: 21783

> How about cutting the resistor's leads off completely and just
> clamping it between say two 1" cube copper blocks? But then I guess
> you would still have the problem of connecting it to the VNA. :-(
> --
Would possibly work OK if your standards were fabricated in the same way.
When it makes a measureable difference whether you're measuring to the front
face of the SMA center pin and the back of that same pin, you can start to
develop an appreciation for the accuracy possible with the VNA. I haven't
measured the capacity between two copper faces one inch square and separated
by the length of a quarter watt resistor, but it would be appreciable. (and
measureable if I were really interested.)

W4ZCB

4000. FA: ITT MacKay transmitter + more

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-07 19:42:17 UTC
From: Heytubeguy <heytubeguy@worldnet.att.net>
Message-ID: <tIntd.100251$7i4.89629@bgtnsc05-news.ops.worldnet.att.net>
Source record: 21784
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

ITT MacKay Marine Low Frequency transmitter at:

http://search.ebay.com/_W0QQgotopageZ1QQsassZheytubeguyQQsorecordsperpageZ25QQsosortorderZ1QQsosortpropertyZ1

+ a few more items too, tnx for looking, heytubeguy

4001. FA:UNBUILT Heathkit Serial Port Upgrade for H-100 + mo

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-07 19:46:04 UTC
From: Heytubeguy <heytubeguy@worldnet.att.net>
Message-ID: <0Mntd.100264$7i4.11842@bgtnsc05-news.ops.worldnet.att.net>
Source record: 21785

Unbuilt Heathkit Serial Port Upgrade for H-100.., see at

http://search.ebay.com/_W0QQgotopageZ1QQsassZheytubeguyQQsorecordsperpageZ25QQsosortorderZ1QQsosortpropertyZ1

+ a few more items too, tnx for looking, heytubeguy

4002. FA: JENSEN 12" SPEAKER + MO

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-07 19:47:50 UTC
From: Heytubeguy <heytubeguy@worldnet.att.net>
Message-ID: <GNntd.100268$7i4.52462@bgtnsc05-news.ops.worldnet.att.net>
Source record: 21786
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

Nice Jensen 12" 2 way speaker..see at

http://search.ebay.com/_W0QQgotopageZ1QQsassZheytubeguyQQsorecordsperpageZ25QQsosortorderZ1QQsosortpropertyZ1

+ a few more items too, tnx for looking, heytubeguy

4003. Winterfest 2005 -- Loveland Colorado

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-07 20:51:48 UTC
From: kc0atc@qsl.net
Message-ID: <1102452708.207376.134730@z14g2000cwz.googlegroups.com>
Source record: 21787
Cross-posted to: rec.radio.amateur.misc, rec.radio.amateur.swap, rec.radio.amateur.homebrew

Please plan to attend Winterfest 2005, northern Colorado's
best winter hamfest and electronics swapmeet.

Saturday, January 15, 2005.
Doors open to the public at 8:00 am.

Admission of $5.00
Vendor tables available.
Door prizes (one door prize ticket included with admission)

Location:
McMillian Building at the old fairgrounds.
700 S. Railroad Ave
Loveland, Colorado

Contact me for information

kc0atc@qsl.net

4004. Re: FOR SALE - A LONG LIST

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-07 22:31:10 UTC
From: Jim Douglas <james.douglas@genesis-software.com>
Message-ID: <ROidnQhg6qbisyvcRVn-ig@comcast.com>
Source record: 21788

I was basically asking if he had any Shortwave transmitter equipment, BTW
who the fuck asked you! Maybe he has something not listed!

"Dave" <Devarim@hotmail.com> wrote in message
news:7951a9a1980a38765e71b27789b38499@news.meganetnews.com...
>
>
> > Any shortwave transmitter that work? Sorry don't know all the specifics
> > about this equipment?
>
> If you are not able to glean from his list that NONE of these are
'shortwave
> transmitters' then I seriously doubt your ability to operate one. Stick
> with CB
>
> JOE
>
> > james.douglas@genesis-softwareREMOVE.com
> >
> > "w3cqh" <nedrog@aol.comNOSPAM> wrote in message
> > news:20041206172409.12265.00000316@mb-m28.aol.com...
> > > QTY DESCRIPTION
> > >
> > > 1 60 FT ROHN 25g TOWER w/pointed top section
> > > and rotator plate
> > > 1 ROHN 25g BASE PLATE
> > > 1 ROHN 25g, HB25CS, HOUSE BRAKET
> > > 1 Icom 551 6m all mode transceiver (works)
> > > 1 Icom 211 2m all mode transceiver (works)
> > > 1 Heathkit SB200 Amplifier (220v)
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> > > 1 Cushcraft R7000 Vertical (40-6)
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assembled)
> > > 1 LJE GP1, RADIAL PLATE FOR 2" MAST, 24
RADIALS
> > > 1 Minkota, mdl: 765 MX, 12v remote trolling
> Motor
> > > (needs new prop)
> > > 1 18" Golden Rule for tournament fishing
> > > 1pr Replacement 8" Steel Wheels w/rubber tires
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> > > (never in water), LIFE JACKETS.

> > > 1 Micronta FS/SWR Meter
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> > > CONNECTORS
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> > > CONTROL & POWER CABLE - NO CONTROL BOX,
> > > NO MIC OR BOOK (AS IS NOT TESTED)
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> > > 1 Motorola, MICOR, mdl: 02033a, WITH BOTH
> CONTROL
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> > > 43ea INNOVATIVE SIMPLICITY, MDL: CREST, 2-JACK WALL
> > > PLATES WITH THE JACKS FOR TELCO
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> > > BATTERIES, (NO MANUALS) (ANTIQUE)
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Z23NAC-1000A,
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> > but
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> > > 73's
> > >
> > > Howard W3CQH
> >
> >
>
>

4005. Re: Metal film resistors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-07 23:12:31 UTC
From: averyfineman@aol.com
Message-ID: <20041207181231.09630.00000211@mb-m20.aol.com>
Source record: 21789

In article <en8br0tmks5c0c9en3630vttnuaivsc2m5@4ax.com>, Paul Burridge
<pb@notthisbit.osiris1.co.uk> writes:

>On Tue, 7 Dec 2004 07:31:08 +0000, "Ian White, G3SEK"
><G3SEK@ifwtech.co.uk> wrote:
>
>>To home in on the inductance of the resistor body itself, I'd have to
>>build a jig that allows the wire lengths to be reduced almost to zero.
>>Harold W4ZCB sent a picture of something he uses, which is just a brass
>>plate soldered to the back of an SMA connector. The Device Under Test is
>>then soldered directly between the centre pin and somewhere on the
>>plate.
>
>How about cutting the resistor's leads off completely and just
>clamping it between say two 1" cube copper blocks? But then I guess
>you would still have the problem of connecting it to the VNA. :-(

That is more trouble to set up than is needed.

In order to measure any inductance component, the only
requirement is to find the DIFFERENTIAL between a direct
short across the bridge/RLC-meter connections and the
device itself (in this case a resistor).

Neil Hecht's excellent little LC Meter II does this automatically
by the zeroing button that subtracts the shorting inductance
from the device measurement, done arithmetically in the internal
microcontroller's registers.

The inductance of a standard gauge round wire is fairly well
known and has been around for years in texts. One can compute
that inductance fairly accurately without using a bridge/meter and
then compare that to the leads of the device under test. The
difference between the shorting lead and the device leads would
then be the inductance of the device-under-test's body.

If a few nanoHenries are involved and affect the circuit the device
is to be used in, the frequency would be high enough that skin
effect would be operative. Skin effect is the curious phenomenon
where current flows in thinner and thinner volume spaces near the
surface of a conductor. The thickness of the bridge/meter
connections would only be advantageous at DC (no skin effect at
all, only "straight" volumetric conductor bulk resistance) or lower
frequencies (where the "skin" is quite deep in the conductor). An
approximation of the RF resistance in Ohms/Inch-length is:

R_rf = (2.61 x 10^-7 x Sqrt(frequency in Hz)) / (2 x (w + h))

for PCB foil and where w = trace width in inches, h = thickness of the PCB foil in inches (about 0.002 times "ounce" rating of foil thickness, give or take some).

Reference: Nicholas Gray, Staff Applications Engineer, National Semiconductor, "Design Idea" insert in electronics trades for December, 2004. See also http://edge.national.com

However, when push comes to shove on measuring things, a built-in inductance might be as much as 10 nanoHenries. At 100 MHz that inductance is equal to +j 6.283 Ohms. A precision resistor of 50 Ohms at DC would have an equivalent series magnitude of 50.39 Ohms, an increase over DC of only 0.79%. The end result to a circuit using that device wouldn't amount to very much change.

If that inductance were (somehow) ten times higher to 100 nHy, then it would have +j 62.83 Ohms and the series magnitude would (of that 50 Ohm resistor at DC) be 80.30 Ohms. That WILL have some noticeable effect on a circuit at 100 MHz.

The upshot of all this is that one considers the frequency(s) of operation first, then measures a part second to find out if the resulting part inductance will have any effect on things. In order to measure the part, the characteristics of the measuring instrument ought to be known so as to get a reasonably accurate measurement. Comparing the part to a wide conductor across the instrument connections as the reference inductance, the part is then measured with the wide conductor inductance subtracted from the mesaured series inductance.

Some LC bridges measure admittance rather than impedance. If that's the case, then the complex admittance (an equivalent R & C in parallel) must be inverted to find the complex impedance which is a series R and L. A grid-dipper sort of measurement just won't yield any meaningful result for either Z or Y.

LenAnderson@ieee.org

4006. Wanted (to buy): 2 meter power amplifier...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-08 00:06:52 UTC
From: "Arthur E. Sowers" <advocacy@sdf.lonestar.org>
Message-ID: <Pine.NEB.4.61.0412072350440.27134@sdf.lonestar.org>
Source record: 21790
Cross-posted to: alt.ham-radio.marketplace,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,alt.ham-radio.vhf-uhf

I need an aligator 2 meter amplifier for FM ragchews with people I've known for a long time but are now at a fringe ground-wave distance since I moved away from them. I'm talking about 300 (min) to 500 w output, and something like a pair of 4CX250bs in PP. The older ARRL handbooks have a pair of 4-125 in PP power amp which would be OK and I'd consider building one if its not a bear to tune, adjust, or neutralize. I also hear there are some affordable Russian metal ceramic tubes out there (one of the recent ham magazines) and I'd love to hear from anyone who can tell me if buiding around any of them is feasible and practical. Lastly, I think its Command Technologies or something like that that has a high power amp for 2 meters (using metal ceramic tubes) but I can't afford or justify their prices. Do the big brick amps hold up? My 80 w out LUNAR amp still works but my RFConcepts 160 out amp melted down. Several times.

The conventional answer to the above problem is to recommend more elements in the antenna and/or higher placement of those elements. For additional reasons beyond the scope of this post, neither of these options is, at this time, practical for me.

I'd appreciate hearing from anyone who has an old 2m aligator amp (working and stable) they would like to convert to cash. Or, if they have any other bright ideas (we're not going to get into satellites or Echo Link stuff, either).

I may not check my email inbox right away, so don't expect quick answers. Also, we don't take telephone calls when they ring and would prefer just sending an email to the address I am sending from.

73,

Art, W4PON
I'm in southern Delaware.

4007. Re: Wanted (to buy): 2 meter power amplifier...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-08 00:26:58 UTC
From: kludge@panix.com
Message-ID: <cp5hoiaac1@panix2.panix.com>
Source record: 21791
Cross-posted to: alt.ham-radio.marketplace,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,alt.ham-radio.vhf-uhf

Arthur E. Sowers <advocacy@sdf.lonestar.org> wrote:
>
>I'd appreciate hearing from anyone who has an old 2m aligator amp
>(working and stable) they would like to convert to cash. Or, if they
>have any other bright ideas (we're not going to get into satellites or
>Echo Link stuff, either).

I do not have any such thing, but Fair Radio currently has a bunch of high power VHF aircraft sets. Some of them are just linear amps (and they have to be linear since this is AM) and some are full transmitters with plate modulation. Either one of them could probably be hacked up into 2M amp duty. The finals need to be retuned. I don't know what extent you'd have to add extra trap stuff if you were to move the bias point down, but hell, you can run FM through the class AB amp and throw away some power.

The aircraft VHF stuff is basically a glut on the market right now because there are a lot of upgrades going on, and the old gear is all AM and not very useful for ham service without some hackery.
--scott

--
"C'est un Nagra. C'est suisse, et tres, tres precis."

4008. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____ egedduqy

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-08 03:20:38 UTC
From: dogdog@noemail.com
Message-ID: <pan.2004.12.08.03.20.33.466580@noemail.com>
Source record: 21792
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

On Fri, 03 Dec 2004 05:24:31 +0000, Walt Davidson wrote:

> On Thu, 02 Dec 2004 18:01:26 -0700, Sir Cumference <me@this.ten>
> wrote:
>
>>If the US had not become involved in WWII you Brits would be speaking
>>German today. There was no way England would have defeated Hitler
>>without the US help.
>
> Scotland would have beaten them, though.
Whats the saying .. Ohhhh

England forever .. BUT SCOTLAND JUST A WEEEE BIT LONGGGERRRR!!!!

4009. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____ egedduqy

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-08 03:24:50 UTC
From: dogdog@noemail.com
Message-ID: <pan.2004.12.08.03.24.41.710774@noemail.com>
Source record: 21793
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

On Fri, 03 Dec 2004 11:24:14 +0000, Bill Turner wrote:

> On Thu, 02 Dec 2004 18:01:26 -0700, Sir Cumference <me@this.ten> wrote:
>
>>If the US had not become involved in WWII you Brits would be speaking
>>German today. There was no way England would have defeated Hitler
>>without the US help.
>
> _____
>
> Nonsense. As much as I respect and admire the American effort in WW2,
> the Russkies did the heavy lifting. Just look at the stats.
>
> --
> Bill W6WRT

Good point Bill, but remember that the Russians were using alot of U.S. goods in their efforts to defeat Nazi Germany. If it werent for the U.S. Merchant Marine they would not have had the initial supplies to keep up the fight.

I believe it was a total team effort on all parts. No one nation should take ownership of the overall defeat of a tyrant or a tyranical government of the time. Each had their own reason for entering and fighting and that is what should be respected.

4010. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____ egedduqy

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-08 03:36:28 UTC
From: dogdog@noemail.com
Message-ID: <pan.2004.12.08.03.36.18.122664@noemail.com>
Source record: 21794
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

On Thu, 02 Dec 2004 19:34:33 +0000, pfriedmanNoSpam wrote:

> "Sir Cumference" <me@this.ten> wrote in message
> news:iqadnY2tlL9fJjLcRVn-ig@gbronline.com...
>> Walt Davidson wrote:
>>
>>> On Tue, 09 Nov 2004 22:27:14 -0500, "J. D. B." <duffyb01@fuse.net>
>>> wrote:
>>>
>>>
>>>>You're right, we Americans no longer care about the rest of the world.
>>>>When we did, by feeding them, fighting for them, helping them rebuild,
>>>>etc. The rest of the world crapped on us. Twice in the last century we
>>>>had to save the damn Europeans in two World Wars.
>>>
>>>
>>> LOL! They actually teach them this crap in school now.
>>
>> If the US had not become involved in WWII you Brits would be speaking
>> German today. There was no way England would have defeated Hitler without
>> the US help.
>>
>
> psst, it was Soviets who did more to defeat Germany than all the other
> Powers combined. With a fair amount of material aid from the U.S., yes, but
> it was their blood. And, no, I am not belittling the sacrifices made by U.S.
> troops. My father fought in Africa, Sicily, Italy, France, and Germany and I
> have his Sliver Star, Bronze Star, Purple Heart, etc. as a proud reminder.
>
> Paul AB0SI

I probably shouldnt bring this up but remember that the soviets did sign a
non-aggression act/treaty with nazi germany. They were only brought into
the war based on Hitlers ignorance in attacking them. Had he not broken
the treaty I would find it hard to believe that they would have entered
and sacrificed so many and and so much for the "western" powers. Remember
nazi germany just about took stalingrad.

4011. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____ egedduqy

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-08 04:19:32 UTC
From: pfriedmanNoSpam <p.paulfriedmanNoSpam@comcast.net>
Message-ID: <eNydnXVOGZhJHSvcRVn-hA@comcast.com>
Source record: 21795
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

<dogdog@noemail.com> wrote in message
news:pan.2004.12.08.03.36.18.122664@noemail.com...
> On Thu, 02 Dec 2004 19:34:33 +0000, pfriedmanNoSpam wrote:
>
>> "Sir Cumference" <me@this.ten> wrote in message
>> news:iqadnY2tlL9fJjLcRVn-ig@gbronline.com...
>>> Walt Davidson wrote:
>>>
>>>> On Tue, 09 Nov 2004 22:27:14 -0500, "J. D. B." <duffyb01@fuse.net>
>>>> wrote:
>>>>
>>>>
>>>>>You're right, we Americans no longer care about the rest of the world.
>>>>>When we did, by feeding them, fighting for them, helping them rebuild,
>>>>>etc. The rest of the world crapped on us. Twice in the last century
>>>>>we
>>>>>had to save the damn Europeans in two World Wars.
>>>>
>>>>
>>>> LOL! They actually teach them this crap in school now.
>>>
>>> If the US had not become involved in WWII you Brits would be speaking
>>> German today. There was no way England would have defeated Hitler
>>> without
>>> the US help.
>>>
>>
>> psst, it was Soviets who did more to defeat Germany than all the other
>> Powers combined. With a fair amount of material aid from the U.S., yes,
>> but
>> it was their blood. And, no, I am not belittling the sacrifices made by
>> U.S.
>> troops. My father fought in Africa, Sicily, Italy, France, and Germany
>> and I
>> have his Sliver Star, Bronze Star, Purple Heart, etc. as a proud
>> reminder.
>>
>> Paul AB0SI
>
> I probably shouldnt bring this up but remember that the soviets did sign a
> non-aggression act/treaty with nazi germany. They were only brought into
> the war based on Hitlers ignorance in attacking them. Had he not broken

> the treaty I would find it hard to believe that they would have entered
> and sacrificed so many and and so much for the "western" powers. Remember
> nazi germany just about took stalingrad.
>

They didn't "sacrifice ....for the western powers." We didn't sacrifice for them. Heck, we were not even formal allies (the official term was "associated Powers"). I never mentioned motivation. There seems to a common bad habit of associating "goodness" on one hand and "bravery" and "sacrifice" on the other.

Paul

4012. Re: Metal film resistors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-08 05:45:43 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10rd58cg76larb2@corp.supernews.com>
Source record: 21796

It's not at all my intent to make up more work for you to do. What I was mostly interested in was just how much the spiral construction of the resistor adds to its inductance -- is it or isn't it significant, or is the inductance mostly due to the component size and the leads? And it still seems to me that you could just measure a wrapped or painted resistor in the same fixture as you did the intact resistor. The difference in measured inductances should be the contribution of the spiral element.

Although it would be interesting to see how small the inductance of a leaded resistor could possibly be, it's probably of more practical use to know the inductance of a leaded resistor with some realistic length of leads attached, which is I believe what you've already done. Anyone needing less inductance than that would be wise to abandon leaded resistors and go to SMD.

Roy Lewallen, W7EL

Ian White, G3SEK wrote:

> Paul Burridge wrote:
>
>> On Thu, 2 Dec 2004 23:20:40 +0000, "Ian White, G3SEK"
>> <G3SEK@ifwtech.co.uk> wrote:
>>
>>
>> What does a typical "test jig" consist of Ian? That's one thing that's
>> always puzzled me about these kind of measurements; particularly at
>> UHF++.
>
>
> One that minimizes unwanted or uncontrolled lead lengths. In general,
> one that is based on solid lumps of metal and large, broad,
> low-inductance conducting surfaces.
>
> I had simply bent the resistor wires so that one end pushed into the
> centre of the VNA's N socket, and the other wire was literally tied onto
> the body of the socket. However, the measurement showed that most of the
> small inductance could be accounted for by those two wires - which you'd
> never leave as long as that in a practical layout.
>
> To home in on the inductance of the resistor body itself, I'd have to
> build a jig that allows the wire lengths to be reduced almost to zero.
> Harold W4ZCB sent a picture of something he uses, which is just a brass
> plate soldered to the back of an SMA connector. The Device Under Test is

> then soldered directly between the centre pin and somewhere on the plate.
>
> But I'm afraid my only visit to the workshop last weekend was to dump
> yet another cardboard box on the floor.
>
>

4013. Re: Looking for roller inductors

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-08 08:54:14 UTC
From: Roger <Delete-Invallid.stuff.groups@tm.net>
Message-ID: <s7gdr0tvlen827vk07gq2aeicm9cspk3qh@4ax.com>
Source record: 21797

On Sun, 5 Dec 2004 12:40:01 +0100, "ON5MJ" <my_call_sign@skynet.be>
wrote:

>Thank you KN6WH,
>
<snip>

I saw an EF Johnson roller inductor on e-bay yesterday. It was still
at a reasonable price.

Roger Halstead (K8RI & ARRL life member)
(N833R, S# CD-2 Worlds oldest Debonair)
www.rogerhalstead.com
>
>73 de ON5MJ - Jacques.
>

4014. Re: Metal film resistors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-08 09:46:32 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <gfI2uTl41stBFADg@ifwtech.co.uk>
Source record: 21698

Len wrote:
>
> In order to measure any inductance component, the only
> requirement is to find the DIFFERENTIAL between a direct
> short across the bridge/RLC-meter connections and the
> device itself (in this case a resistor).
>
> Neil Hecht's excellent little LC Meter II does this automatically
> by the zeroing button that subtracts the shorting inductance
> from the device measurement, done arithmetically in the internal
> microcontroller's registers.
>
I completely agree that all impedance measuring devices should be "zeroed" in this way. But the problem with the resistor wires that we're discussing here is *additional* to that.

We want to know the inductance of the metal-film resistor body, with the wires cut very short as they would be for any application where low inductance is important. However, for convenience, my first measurements used almost the full length of the resistor wires to connect to the N socket of the VNA.

It turned out that the total measured inductance is comparable to what you'd find from the wires alone, so the body inductance is very small (which is entirely consistent with the physical construction).

The suggestion had been to determine the inductance of the resistor body by first repeating that original measurement, then applying conductive paint to short out the resistor body, and then measuring again. The body inductance would then be the difference between those two measurements.

Unfortunately that would be a poorly designed experiment, because the resistor wires were bent around into a floppy loop whose size and shape - and therefore inductance - is not very well controlled. The very small inductance of the resistor body could easily become lost in variations caused by small accidental movements of the wires. It is also an experiment that cannot be repeated, because of the conductive paint.

If I'd found time at the weekend, I would have made up a little plate like W4ZCB described. The N2PK VNA uses a three-step calibration with open, short and 50R standard loads. For this jig, I'd have had to start with the open-circuit connector spill, followed by a solder-blob short, and finally by the best solderable 50R load I could make (probably two 100R chip resistors in parallel). Then I'd have cut short the wires of the test resistor, and soldered that in place on the plate for the actual measurement.

But unfortunately the whole weekend timed ou

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

4015. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-08 11:48:21 UTC
From: Clarence <no@No.com>
Message-ID: <8SBtd.56087$QJ3.36999@newssvr21.news.prodigy.com>
Source record: 21699
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

"Walt Davidson" <g3nyy@despammed.com> wrote in message >

> To the citizens of the United States of America...

<snip>

What an ASS!

I realize that very few in the UK have the twisted view that you express.

However A crowded country smaller than the state of Oregon, Deeply in debt,
Population about 1.5 times that of California, is not a threat to the US.

Lets see, population is 60,270,708 in UK, vs. 293,027,571 in US.
So your out numbered 5/1
17% of your people are below the poverty line.
Median income is abt $10,000 les than the US.

Your almost entirely unarmed, Treated like children by your government.
You have no Constitution nor a bill of rights.

--
Be not afraid of any man
Who walks beneath the skies,
For be he tall or be he strong,
I will equalize.
- Samuel Colt

--
Laws that forbid the carrying of arms...
disarm only those who are neither inclined
nor determined to commit crimes...
Such laws make things worse for the
assaulted and better for the assailants;
they serve rather to encourage than to
prevent homicides, for an unarmed man
may be attacked with greater confidence
than an armed man.

--- Jefferson's "Commonplace Book,"
1774-1776,
quoting from On Crimes and Punishment,
by criminologist Cesare Beccaria, 1764

--
"Do not meddle in the affairs of Dragons,
for you are crunchy and

taste good with ketchup!"

4016. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-08 13:40:46 UTC
From: Doug Smith W9WI <w9wi@invalid.invalid>
Message-ID: <41B70457.1090300@invalid.invalid>
Source record: 21700
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

Walt Davidson wrote:
> Dear Americans
>
> To the citizens of the United States of America...
>
> In the light of your failure to elect a proper President of the USA
> and thus to govern yourselves, we hereby give notice of the revocation
> of your independence, effective today.

<grin>!

> Her Sovereign Majesty Queen Elizabeth II will resume monarchical
> duties over all states, commonwealths and other territories. (Except
> Utah, which she does not fancy.) Your new prime minister (The Right

Her Majesty should reconsider. Utah is really a rather pleasant place,
except for a small number of kooks - but there are no people in the
pleasant parts so it's easy to avoid them...

> You should stop playing baseball. It is not reasonable to host an
> event called the 'World Series' for a game, which is not played
> outside of America. Since only 2.15% of you are aware that there is a

Fidel Castro and a few million Taiwanese kids would be surprised to
learn that<grin>...

> of conversion tables. Roundabouts and metrication will help you
> understand the British sense of humour.

Having traveled in New England (and seen my town government propose
replacing our main road junction with a roundabout...) I think I can say
with confidence roundabouts are the reason for our countries'
disagreements of 1776 and 1812 in the first place....

--
Doug Smith W9WI
Pleasant View (Nashville), TN EM66
http://www.w9wi.com

4017. Re: FOR SALE - A LONG LIST

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-08 13:47:07 UTC
From: not gonna <"not gonna"@take.it.org>
Message-ID: <41B705DA.4020305@take.it.org>
Source record: 21701

Jim Douglas wrote:
> I was basically asking if he had any Shortwave transmitter equipment, BTW
> who the fuck asked you! Maybe he has something not listed!

Maybe he does have something not listed, maybe you should have asked him directly.

Also, nobody the fuck asked him, nobody has to, this is a news group, get used to it. You asked a stupid question and you got what you deserved.

Nobody outside of broadcast calls them 'shortwave transmitters' anymore, and if you're really looking for a shortwave transmitter it's doubtful that someone posting his 'for sale' list of ham equipment has one sitting in the back of his garage that he didn't waste time typing one more line about because he didn't think it would sell.

So, go the fuck back to CB.

4018. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-08 16:46:19 UTC
From: Serious Poster <SP@truth.net>
Message-ID: <vdGtd.211310$hj.110621@fed1read07>
Source record: 21702
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

Sir Walter -- your "Revocation of the USA independence" is priceless -- UK satire at its best.
Bennie Hill would be pleased. Deserves a place on the USA Comedy Hour TV show.

From the responses so far it has gone over the heads of most of the responders.

However tell your tax collectors not to wear red coats this time and don't bother to send HMS Serapis.
We have a new ship -- DDG-53 USS JOHN PAUL JONES

And from the declaration of independence:

"We must, therefore, acquiesce in the necessity, which denounces our Separation, and hold them, as we hold the rest of mankind, Enemies in War, in Peace Friends.'
--
See you in LaJolla

Gotta go -- The Dallas Cowpersons are playing some "Rounders" on TV

I post, therefore I am

"Walt Davidson" <g3nyy@despammed.com> wrote in message news:39gdr0l0if2g59mrmsbci9ot31sqvt6u48@4ax.com...
>
> Dear Americans
>
> To the citizens of the United States of America...
>
> In the light of your failure to elect a proper President of the USA
> and thus to govern yourselves, we hereby give notice of the revocation
> of your independence, effective today.
>
> SNIP>
>
>
> --
> Walt Davidson Email: g3nyy @despammed.com

4019. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-08 16:53:41 UTC
From: "Harold E. Johnson" <W4ZCB@mchsi.com>
Message-ID: <pkGtd.534441$D%.31542@attbi_s51>
Source record: 21703
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

> Sir Walter -- your "Revocation of the USA independence" is priceless -- UK
> satire at its best.
> Bennie Hill would be pleased. Deserves a place on the USA Comedy Hour TV
> show.
>
> From the responses so far it has gone over the heads of most of the
> responders.

My recollection is that I've read all this before..Perhaps several of years back. Don't believe Walt deserves the credit for it.

W4ZCB

4020. Re: Wanted (to buy): 2 meter power amplifier...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-08 17:27:44 UTC
From: "Arthur E. Sowers" <advocacy@sdf.lonestar.org>
Message-ID: <Pine.NEB.4.61.0412081727220.13448@sdf.lonestar.org>
Source record: 21704
Cross-posted to: alt.ham-radio.marketplace,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,alt.ham-radio.vhf-uhf

On Wed, 8 Dec 2004, Barry OGrady wrote:

> Date: Wed, 08 Dec 2004 23:22:22 +1100
> From: Barry OGrady <god_freee_jones@hotmail.com>
> Newsgroups: alt.ham-radio.marketplace, rec.radio.amateur.boatanchors,
> rec.radio.amateur.equipment, rec.radio.amateur.homebrew,
> alt.ham-radio.vhf-uhf
> Subject: Re: Wanted (to buy): 2 meter power amplifier...
>
> On Wed, 8 Dec 2004 00:06:52 +0000, "Arthur E. Sowers" <advocacy@sdf.lonestar.org> wrote:
>
>> I need an aligator 2 meter amplifier for FM ragchews with people I've
>> known for a long time but are now at a fringe ground-wave distance since I
>> moved away from them.
>
> What metre band do you want it for, and what would the meters display?

Um...let me give you a "english translation" for the "shop talk". The word
"alligator" means a pretty hefty power level. The "2 meter" part means the
2 meter amateur band. Most hams know this means the 144.000 to 148.000 mHz
range of frequencies. "What would the meters display?" Well, that's your
question since its pretty clear you don't have what I'm interested in.
But, one possibility I'd be interested in would be a homebrew job that had
at least grid and plate current panel meters, but a builder could have put
in a rotary switch to connect one panel meter to different parts of the
circuit. Ever hear of a D'arsonval movement?

Art W4PON

>> Art, W4PON
>> I'm in southern Delaware.
>
>
> -Barry
> ========
> Web page: http://members.iinet.net.au/~barry.og
> Atheist, radio scanner, LIPD information.
>

4021. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-08 17:40:50 UTC
From: drwxr-xr-x <bit-bucket@config.com>
Message-ID: <slrncref52.env.bit-bucket@shell.config.com>
Source record: 21705
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

On Wed, 08 Dec 2004 11:48:21 GMT, Clarence hath writ:
>
> "Walt Davidson" <g3nyy@despammed.com> wrote in message >
>
>> To the citizens of the United States of America...
>
><snip>
>
> What an ASS!

Please, God, let this asinine thread die!

4022. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-08 17:43:15 UTC
From: microwaves@blueyonder.co.uk
Message-ID: <41b73d1c.26130133@news.blueyonder.co.uk>
Source record: 21706
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

On Wed, 08 Dec 2004 11:48:21 GMT, "Clarence" <no@No.com> wrote:

>
>"Walt Davidson" <g3nyy@despammed.com> wrote in message >
>
>> To the citizens of the United States of America...
>
><snip>
>
>What an ASS!
>
>I realize that very few in the UK have the twisted view that you express

LOL! He took the bait Walt !!!

Peter, G3PHO

4023. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-08 18:05:11 UTC
From: Serious Poster <SP@truth.net>
Message-ID: <rnHtd.211339$hj.122941@fed1read07>
Source record: 21707
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

Your prayers have been answered -- all UK posters have been informed of the
"Revocation of UK posters on this forum"
--
Not so serious Poster
I post, therefore I am

"drwxr-xr-x" <bit-bucket@config.com> wrote in message
news:slrncref52.env.bit-bucket@shell.config.com...
> On Wed, 08 Dec 2004 11:48:21 GMT, Clarence hath writ:
>>
>> "Walt Davidson" <g3nyy@despammed.com> wrote in message >
>>
>>> To the citizens of the United States of America...
>>
>><snip>
>>
>> What an ASS!
>
>
> Please, God, let this asinine thread die!

4024. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-08 20:19:31 UTC
From: Clarence <no@No.com>
Message-ID: <nlJtd.40241$6q2.16769@newssvr14.news.prodigy.com>
Source record: 21708
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

"Peter" <microwaves@blueyonder.co.uk> wrote in message
news:41b73d1c.26130133@news.blueyonder.co.uk...
> On Wed, 08 Dec 2004 11:48:21 GMT, "Clarence" <no@No.com> wrote:
>
> >
> >"Walt Davidson" <g3nyy@despammed.com> wrote in message >
> >
> >> To the citizens of the United States of America...
> >
> ><snip>
> >
> >What an ASS!
> >
> >I realize that very few in the UK have the twisted view that you express
>
>
>
> LOL! He took the bait Walt !!!
>
> Peter, G3PHO

Second ASS!

4025. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-08 20:19:31 UTC
From: Clarence <no@No.com>
Message-ID: <nlJtd.40242$6q2.16113@newssvr14.news.prodigy.com>
Source record: 21709
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

"Harold E. Johnson" <W4ZCB@mchsi.com> wrote in message
news:pkGtd.534441$D%.31542@attbi_s51...
>
>
> > Sir Walter -- your "Revocation of the USA independence" is priceless -- UK
> > satire at its best.
> > Bennie Hill would be pleased. Deserves a place on the USA Comedy Hour TV
> > show.
> >
> > From the responses so far it has gone over the heads of most of the
> > responders.
>
> My recollection is that I've read all this before..Perhaps several of years
> back. Don't believe Walt deserves the credit for it.
>
> W4ZCB
>

No credit, only rebuke!

4026. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-08 20:19:31 UTC
From: Clarence <no@No.com>
Message-ID: <nlJtd.40243$6q2.9851@newssvr14.news.prodigy.com>
Source record: 21710
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

"drwxr-xr-x" <bit-bucket@config.com> wrote in message
news:slrncref52.env.bit-bucket@shell.config.com...
> On Wed, 08 Dec 2004 11:48:21 GMT, Clarence hath writ:
> >
> > "Walt Davidson" <g3nyy@despammed.com> wrote in message >
> >
> >> To the citizens of the United States of America...
> >
> ><snip>
> >
> > What an ASS!
>
>
> Please, God, let this asinine thread die!

Another Ass!

4027. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-08 20:23:56 UTC
From: Clarence <no@No.com>
Message-ID: <wpJtd.40245$6q2.3262@newssvr14.news.prodigy.com>
Source record: 21711
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

"drwxr-xr-x" <bit-bucket@config.com> wrote in message
news:slrncref52.env.bit-bucket@shell.config.com...
> On Wed, 08 Dec 2004 11:48:21 GMT, Clarence hath writ:
> >
> > "Walt Davidson" <g3nyy@despammed.com> wrote in message >
> >
> >> To the citizens of the United States of America...
> >
> ><snip>
> >
> > What an ASS!
>
>
> Please, God, let this asinine thread die!

Also didn't get it! (:>)

4028. Wanted: Power Supply for TR-4C

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-08 21:31:24 UTC
From: KA9S-3_Jeff <ka9s3@comcast.net>
Message-ID: <sfadnQ4GvPFG7yrcRVn-gA@comcast.com>
Source record: 21712
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

Wanted - Cheap - for Drake TR-4C: broken AC-4 or AC-3, or home brewed power supply, or modifiable power supply by other manufacturer, or interesting power transformer.

I want to power up a Drake TR-4C I picked up. It did not have a power supply. The price an AC-4 power supply brings today is more that the transceiver is worth. Are there more radios out there than power supplies? (Kind of like there are more horses asses than horses). Are the high AC-4 prices a function of scarcity or what?

I've looked at the schematic of the AC-4 and decided that it's not rocket science. I'm not putting together an "original" collection of Drake equipment and I don't need the power supply to fit within a MS-4 speaker (which I don't have and don't need). So - I think I have some economically appealing options.

- I could repair a broken AC-4, AC-3 as long as the transformer is OK.

- Home brew power supplies do not scare me.

- It's possible power supplies for other rigs could be adapted to work with Drake gear.

- I could build my own homebrew power supply. The critical component would be the power transformer / transformers. (There are many power supply designs that would work).

Here is what the power supply needs to do:

Input: 117 vac
Outputs: (12.6 vac @ 5.5A), (650 vdc @ 300mA average - 500 mA peak), (250 vdc @ 175 mA), (-45 to -65 vdc for bias)

If any of you have something to sell me that will get me there, please let me know (with details).

Thanks Jeff - KA9S

4029. Re: Looking for roller inductors

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-08 22:35:32 UTC
From: ON5MJ <my_call_sign@skynet.be>
Message-ID: <41b7819a$0$13460$ba620e4c@news.skynet.be>
Source record: 21713

Thank you Roger for the lead. I received last week two roller coils coming from a French submarine scrapped in the 70's. Now I will try to find 4 stepper motors. I also got very good ideas from Bob (anonymous) about the use and control of stepper motors.

73 de ON5MJ - Jacques.

4030. Re: FOR SALE - A LONG LIST

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-08 22:42:03 UTC
From: Jim Douglas <james.douglas@genesis-software.com>
Message-ID: <746dnRMLL9cXHyrcRVn-qw@comcast.com>
Source record: 21714

notgomma@take.it.org -- > ZBM2

BTW does notgomma take it up the ass anymore?
"not gonna" <"not gonna"@take.it.org> wrote in message
news:41B705DA.4020305@take.it.org...
> Jim Douglas wrote:
> > I was basically asking if he had any Shortwave transmitter equipment,
BTW
> > who the fuck asked you! Maybe he has something not listed!
>
> Maybe he does have something not listed, maybe you should have asked him
> directly.
>
> Also, nobody the fuck asked him, nobody has to, this is a news group,
> get used to it. You asked a stupid question and you got what you
deserved.
>
> Nobody outside of broadcast calls them 'shortwave transmitters' anymore,
> and if you're really looking for a shortwave transmitter it's doubtful
> that someone posting his 'for sale' list of ham equipment has one
> sitting in the back of his garage that he didn't waste time typing one
> more line about because he didn't think it would sell.
>
> So, go the fuck back to CB.
>

4031. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-08 22:46:58 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cp8091$hl0$1@hercules.btinternet.com>
Source record: 21715
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

The trouble with the 98% of USA citizens who are not aware of the existence of the rest of the world, or the damage caused by world-wide indiscriminate use of their weapons of mass destruction, is that they are far too childishly patriotic. They natuarally believe their own distorted, hopelessly biased propaganda, fundamentally generated by their international oil and energy, atmospheric-polluting companies.

Iraq, Palestine and other middle-eastern and central Asian countries are heading, slow-motion, towards another Vietnam, Cambodia and other places left poisoned and in ruins. Your boys in the armed services will return home, not necessarily all in black bags, but in the form of many thousands of unemployed hillibillies, drug addicts, detested outcasts of society.

But it need not end in that way. You are all-powerful and rich. Just find some teachers and educate yourselves before it's too late. For everybody's sake on this small overepopulated, underfed Earth.

==========

4032. Re: Wanted: Power Supply for TR-4C

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-08 23:57:47 UTC
From: No Spam <"No Spam"@Nospama.net>
Message-ID: <ifgU75G3LLdo-pn2-mOQKKFJbOk7I@localhost>
Source record: 21716
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.boatanchors

On Wed, 8 Dec 2004 21:31:24 UTC, "KA9S-3_Jeff" <ka9s3@comcast.net>
wrote:

> Wanted - Cheap - for Drake TR-4C: broken AC-4 or AC-3, or home brewed power
> supply, or modifiable power supply by other manufacturer, or interesting
> power transformer.
> --------
...

> Here is what the power supply needs to do:
>
> Input: 117 vac
> Outputs: (12.6 vac @ 5.5A), (650 vdc @ 300mA average - 500 mA peak), (250
> vdc @ 175 mA), (-45 to -65 vdc for bias)
>
> If any of you have something to sell me that will get me there, please let
> me know (with details).
>
>
> Thanks Jeff - KA9S

You could probably use a Heathkit HP-23 or one of the A/B/C
varients. The Heath's voltages are higher than what you spec.

HP-23's are about $50. There's almost always one or two on eBay.
I saw one go for $30 at a hamfest this spring.

de ah6gi/4

4033. Re: Wanted: Power Supply for TR-4C

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-09 00:19:06 UTC
From: Highland Ham <abcgm0csz.kn6whxyz@abcntlworldxyz.com>
Message-ID: <_RMtd.1666$rL3.2@newsfe1-gui.ntli.net>
Source record: 21718
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

> Here is what the power supply needs to do:
>
> Input: 117 vac
> Outputs: (12.6 vac @ 5.5A), (650 vdc @ 300mA average - 500 mA peak),
(250
> vdc @ 175 mA), (-45 to -65 vdc for bias)
>
> If any of you have something to sell me that will get me there, please let
> me know (with details).
==========
An 'all in one' transformer might be difficult to find ; however since it is
assumed the unit is in a separate enclosure ,you can implement the power
supply unit with up to 4 separate transformers which no doubt can be found
at various ham fleamarkets .
The biasvoltage can probably be obtained through a separate diode and zener
voltage
circuit ,using the transformer supplying 250V @175 mA ,which would enable
you to implement with a maximum of 3 transformers.
Good luck with your quest.

Frank GM0CSZ / KN6WH

4034. Re: Wanted (to buy): 2 meter power amplifier...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-09 00:19:07 UTC
From: Highland Ham <abcgm0csz.kn6whxyz@abcntlworldxyz.com>
Message-ID: <%RMtd.1667$rL3.1240@newsfe1-gui.ntli.net>
Source record: 21717
Cross-posted to: alt.ham-radio.marketplace,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,alt.ham-radio.vhf-uhf

> But, one possibility I'd be interested in would be a homebrew job that had
> at least grid and plate current panel meters, but a builder could have put
> in a rotary switch to connect one panel meter to different parts of the
> circuit. Ever hear of a D'arsonval movement?
==========
D'arsonval movement : To non Americans this might be better known as a
moving coil (meter).

Frank GM0CSZ / KN6WH

4035. Re: Looking for roller inductors

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-09 00:31:34 UTC
From: Highland Ham <abcgm0csz.kn6whxyz@abcntlworldxyz.com>
Message-ID: <G1Ntd.708$WE2.682@newsfe1-win.ntli.net>
Source record: 21719

Now I will try to find 4 stepper motors. I also got very good ideas from
Bob (anonymous) about the
> use and control of stepper motors.
==========
Good stepper motors for your job would be found in 'ancient' 8 inch floppy
drives or the larger Hard Drives .

Frank GM0CSZ / KN6WH

4036. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-09 01:57:27 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20041208205727.06537.00001566@mb-m15.aol.com>
Source record: 21720

>The trouble with the 98% of USA citizens

Reg, STFU

4037. Re: Wanted: Power Supply for TR-4C

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-09 02:15:53 UTC
From: w9gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <jzOtd.163237$5K2.109903@attbi_s03>
Source record: 21721
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

"KA9S-3_Jeff" <ka9s3@comcast.net> wrote in message
news:sfadnQ4GvPFG7yrcRVn-gA@comcast.com...
> Wanted - Cheap - for Drake TR-4C: broken AC-4 or AC-3, or home brewed
> power
> supply, or modifiable power supply by other manufacturer, or interesting
> power transformer.
> --------
> I want to power up a Drake TR-4C I picked up. It did not have a power
> supply. The price an AC-4 power supply brings today is more that the
> transceiver is worth. Are there more radios out there than power supplies?
> (Kind of like there are more horses asses than horses). Are the high AC-4
> prices a function of scarcity or what?
>
I always see AC-3 and AC-4 units on eBay weekly.. broken and otherwise.

Here are the repair web pages for the broken power units:

Troubleshooting
http://www.wb4hfn.com/DrakeArticles/TechTips/PowerSupplyTroubleshooting.htm

Capacitor Rebuild
http://www.wb4hfn.com/DrakeArticles/TechTips/FilterCapacitorRebuilding.htm

w9gb

4038. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-09 05:40:53 UTC
From: Grey Owl <tdwalter@netins.net>
Message-ID: <cp8oi1$v65$1@news.netins.net>
Source record: 21722
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

>The trouble with the 98% of USA citizens who are not aware of the existence

When was it possible to get 98% to agree on anything. Why the hell can't we just get back to what this newsgroup was designed for.

Trav, WX0Y

4039. Re: FedEx loses points with me

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-09 12:43:37 UTC
From: David Snyder Hale <david@isi.mtwilson.edu.REMOVE>
Message-ID: <cp9h9p$2djh$1@agate.berkeley.edu>
Source record: 21723

I'd had problems w'em all, so for me it's a real crap shoot. Lately, however, FedEx seems the best, as long as I don't use "home delivery". I had a package that, for several days, the tracking indicated "attempted delivery". I had been home (work from home) and I KNEW that no one had attempted delivery. Plus, they had left no notes. Of course, FedEx people didn't believe me, they believed their computer. Finally, when they were going to send it back to the shipper for "exceeding delivery attempts" I insisted I talk to the driver that was attempting the deliveries. They said that wasn't possible, that he didn't carry a phone and he'd try one extra time. He called later on his phone, asked if I could meet him somewhere. By this point I was willing to do most anything. When I met him he told me that his section was having trouble making all of their deliveries so his boss was telling the drivers to mark bunches of their packages as "attempted delivery" at the start of each morning.

I had a USPS package, arrived with big "FRAGILE" stamps all over it, and a large, perfect boot impression in the middle of the crushed-in side. I kept the box, it was so funny.

UPS mis-routes about 2/3 of the packages to my address.

--
Dave * N3WTK (DM04xf) * http://isi.mtwilson.edu * n3wtk@arrl.net.REMOVE

4040. Re: FOR SALE - A LONG LIST

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-09 13:11:03 UTC
From: not gonna <"not gonna"@take.it.org>
Message-ID: <41B84EE7.9030307@take.it.org>
Source record: 21724

Jim Douglas wrote:
> notgomma@take.it.org -- > ZBM2
>
> BTW does notgomma take it up the ass anymore?

I don't know, I'm 'notgonna,' with n's.

Why is ass fucking the first thing you resort to as a weak, immature and somewhat perverted attempt at an insult? Is ass sex something you think about a lot? If you've been abused in the past I suggest you seek help instead of venting on news groups. If you're an abuser I strongly suggest you seek help and quit trolling for victims on news groups.

Once you get out of junior high your level of insult sophistication may improve, but I seriously doubt it, you're not even capable of finding adequate ways to buy the gear you're interested in or even using the correct terminology to find it in the first place.

Go the fuck back to teevee, I think even CB is beyond you.

4041. Re: Wanted: Power Supply for TR-4C

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-09 13:33:41 UTC
From: k5dh@raytheon.com
Message-ID: <VuYtd.1$195.0@dfw-service2.ext.ray.com>
Source record: 21725
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.boatanchors

In addition to the voltage being MUCH higher than the Drake likes, the Heathkit HP23-series supplies couldn't begin to provide enough plate current for a TR-4C! Peak current consumption of, say, an HW-101 or SB-102 is 250 mA. The Drake draws twice that!

73,
Dean K5DH

In article <ifgU75G3LLdo-pn2-mOQKKFJbOk7l@localhost>, NoSpam@Nospama.net says...
>
>On Wed, 8 Dec 2004 21:31:24 UTC, "KA9S-3_Jeff" <ka9s3@comcast.net>
>wrote:
>
>> Wanted - Cheap - for Drake TR-4C: broken AC-4 or AC-3, or home brewed
>power
>> supply, or modifiable power supply by other manufacturer, or interesti
>ng
>> power transformer.
>> --------
>...
>
>> Here is what the power supply needs to do:
>>
>> Input: 117 vac
>> Outputs: (12.6 vac @ 5.5A), (650 vdc @ 300mA average - 500 mA peak)
>, (250
>> vdc @ 175 mA), (-45 to -65 vdc for bias)
>>
>> If any of you have something to sell me that will get me there, please
> let
>> me know (with details).
>>
>>
>> Thanks Jeff - KA9S
>
>You could probably use a Heathkit HP-23 or one of the A/B/C
>varients. The Heath's voltages are higher than what you spec.
>
>HP-23's are about $50. There's almost always one or two on eBay.
>I saw one go for $30 at a hamfest this spring.
>
>de ah6gi/4
>

>
>

4042. Re: FedEx loses points with me

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-09 17:35:11 UTC
From: theosus@aol.com
Message-ID: <20041209123511.06431.00001040@mb-m26.aol.com>
Source record: 21726

>
>I had a USPS package, arrived with big "FRAGILE" stamps all over it,
>and a large, perfect boot impression in the middle of the crushed-in
>side. I kept the box, it was so funny.

I have been inside our local USPS office during mail sorting. Packages came off the truck on big carts, and they would line up smaller carts (the size and type you might see for laundry in hospitals or hotels, the big cloth sided ones). The packages would get tossed like basketballs, from the big truck cart into the appropriate smaller cart for further sorting and delivery. "FRAGILE" on the box doesnt mean anything. Actually, something fragile is more likely to be light, and can be thrown father, while something heavy may actually cause them to have to walk over to the cart.
I asked the USPS worker about it, as a "fragile" box flew through the air, and she said, "we tell people to pack their stuff right, if they dont its too bad".

4043. Re: Metal film resistors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-09 19:12:18 UTC
From: averyfineman@aol.com
Message-ID: <20041209141218.09630.00000237@mb-m20.aol.com>
Source record: 21727

In article <gfI2uTI41stBFADg@ifwtech.co.uk>, "Ian White, G3SEK"
<G3SEK@ifwtech.co.uk> writes:

>Len wrote:
>>
>> In order to measure any inductance component, the only
>> requirement is to find the DIFFERENTIAL between a direct
>> short across the bridge/RLC-meter connections and the
>> device itself (in this case a resistor).
>>
>> Neil Hecht's excellent little LC Meter II does this automatically
>> by the zeroing button that subtracts the shorting inductance
>> from the device measurement, done arithmetically in the internal
>> microcontroller's registers.
>>
>I completely agree that all impedance measuring devices should be
>"zeroed" in this way. But the problem with the resistor wires that we're
>discussing here is *additional* to that.
>
>We want to know the inductance of the metal-film resistor body, with the
>wires cut very short as they would be for any application where low
>inductance is important. However, for convenience, my first measurements
>used almost the full length of the resistor wires to connect to the N
>socket of the VNA.
>
>It turned out that the total measured inductance is comparable to what
>you'd find from the wires alone, so the body inductance is very small
>(which is entirely consistent with the physical construction).
>
>The suggestion had been to determine the inductance of the resistor body
>by first repeating that original measurement, then applying conductive
>paint to short out the resistor body, and then measuring again. The body
>inductance would then be the difference between those two measurements.
>
>Unfortunately that would be a poorly designed experiment, because the
>resistor wires were bent around into a floppy loop whose size and shape
>- and therefore inductance - is not very well controlled. The very small
>inductance of the resistor body could easily become lost in variations
>caused by small accidental movements of the wires. It is also an
>experiment that cannot be repeated, because of the conductive paint.

All noted and good, Ian. The thread had become (in my estimation)
one of those "intellectual exercises" that don't have much real
practical significance. :-)

Of course the resistor lead contribute some inductance. In fact, most of it. However that inductance is directly calculable based on old, available data. What remains is the resistor body itself. A very quick approximation of that body would be to get a scrap of kitchen aluminum foil and wrap it tightly around the body with the overlap tight around the leads to make contact. [won't make much difference because the body, being larger in diameter than the leads, will have much less inductance than those leads]

Some tubular film resistor constructions use a small metal end cap to "grab" the leads and also bond to the substrate material. That adds a shunt capacity component across the whole thing and the equivalent model starts becoming busy with long equations describing it. In the analyst's real world, the actual (external effect) inductance is slightly less because the series resistance is distributed along the "inductive" spiral...and, as has been pointed out, not even along the body. One can go nuts on that intellectualism...which wastes time that could be spent on a project's other things. Time we ain't got in large doses, prescribe well. :-)

>If I'd found time at the weekend, I would have made up a little plate
>like W4ZCB described. The N2PK VNA uses a three-step calibration with
>open, short and 50R standard loads. For this jig, I'd have had to start
>with the open-circuit connector spill, followed by a solder-blob short,
>and finally by the best solderable 50R load I could make (probably two
>100R chip resistors in parallel). Then I'd have cut short the wires of
>the test resistor, and soldered that in place on the plate for the
>actual measurement.

That's the basis for the minicomputer-network-analyzer systems that debuted in the early 1970s (HP in 1973?). The open-short-characteristic-termination will "calibrate-out" the test equipment itself through the numerical results calculated within the computer, leaving only the characteristics of the device under test. Ideal for actually seeing (HP had a small CRT Smith Chart display for a quick look) the effect of the device on the applied circuit.

I haven't looked to see if Agilent (what HP test and measurement division became after Big Business of computer product take-over of HP) has now for App Notes. I have some of the original free App Notes from HP (back when HP was HP...:-) and the going gets tough through all that four-port math. If someone else has gone the same route and put it all into some software/firmware to let the casual hobbyist go at it easily, then good all around. That kind of metrology gets heavy indeed.

For practicality in the homebrew labor-oratory, several different-frequency measurements of a device should be good enough. That yields the complex data from which an approximate model can be derived. Very approximate. But that is normally good enough for general narrowband RF circuit work of the amateur radio kind.

One problem is that some folks, on seeing the results of careful measurement on one resistor value of one physical size from one manufacturer will now adopt that to apply to ALL film resistors regardless of value or source of manufacture. Probably the same folks will look at a "coil" of wire and think "inductance!" while neglecting the fact that straight wire (not to mention its return path) will have inductance as well. :-)

>But unfortunately the whole weekend timed ou

Heh heh heh.

"Today is the tomorrow you worried about yesterday..."

or

"Time flies like the wind but fruit flies like bananas..."

LenAnderson@ieee.org

4044. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-09 19:49:50 UTC
From: Serious Poster <SP@truth.net>
Message-ID: <x%1ud.26$ve.25@fed1read06>
Source record: 21728
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

Me thinks you need to read History regarding the appeasement of tryrants and butchers

You might start with Neville Chamberlain

See the bottom of URL
http://www.spartacus.schoolnet.co.uk/2WWappeasement.htm
--
I post, therefore I am

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message news:cp8091$hl0$1@hercules.btinternet.com...
>
> The trouble with the 98% of USA citizens

What a gross unsuppoted generalization

4045. Re: Metal film resistors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-09 21:08:44 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <I7C8HJGc7LuBFAsW@ifwtech.co.uk>
Source record: 21729

Len wrote:
>
> All noted and good, Ian. The thread had become (in my estimation)
> one of those "intellectual exercises" that don't have much real
> practical significance. :-)
>
"Small enough for VHF" is about as much as we need to know.

> Agilent (what HP test and measurement
> division became after Big Business of computer product take-
> over of HP)

Or as someone said to me, "We're the world's #1 test equipment manufacturer, and they just gave our trademark away to the world's #3 computer manufacturer."

>I have some of the original
> free App Notes from HP (back when HP was HP...:-) and the going
> gets tough through all that four-port math. If someone else has
> gone the same route and put it all into some software/firmware to
> let the casual hobbyist go at it easily, then good all around.

Yes, indeed someone has!

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

4046. Re: Wanted: Power Supply for TR-4C

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-09 22:32:09 UTC
From: Bob Miller <rmiller47@satx.rr.com>
Message-ID: <jgkhr01b9802cma3ol7g8j5dl6pn2blpa1@4ax.com>
Source record: 21730
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

On Wed, 8 Dec 2004 15:31:24 -0600, "KA9S-3_Jeff" <ka9s3@comcast.net>
wrote:

>Wanted - Cheap - for Drake TR-4C: broken AC-4 or AC-3, or home brewed power
>supply, or modifiable power supply by other manufacturer, or interesting
>power transformer.
>--------
>I want to power up a Drake TR-4C I picked up. It did not have a power
>supply. The price an AC-4 power supply brings today is more that the
>transceiver is worth. Are there more radios out there than power supplies?
>(Kind of like there are more horses asses than horses). Are the high AC-4
>prices a function of scarcity or what?
>
>I've looked at the schematic of the AC-4 and decided that it's not rocket
>science. I'm not putting together an "original" collection of Drake
>equipment and I don't need the power supply to fit within a MS-4 speaker
>(which I don't have and don't need). So - I think I have some economically
>appealing options.
>
>- I could repair a broken AC-4, AC-3 as long as the transformer is OK.
>
>- Home brew power supplies do not scare me.
>
>- It's possible power supplies for other rigs could be adapted to work with
>Drake gear.
>
>- I could build my own homebrew power supply. The critical component would
>be the power transformer / transformers. (There are many power supply
>designs that would work).
>
>Here is what the power supply needs to do:
>
>Input: 117 vac
>Outputs: (12.6 vac @ 5.5A), (650 vdc @ 300mA average - 500 mA peak), (250
>vdc @ 175 mA), (-45 to -65 vdc for bias)
>
>If any of you have something to sell me that will get me there, please let
>me know (with details).
>
>
>Thanks Jeff - KA9S
>

Go to:

http://electronics.listings.ebay.com/Radios-CB-Ham-Shortwave_Ham-Radio_W0QQfromZR11QQsacategoryZ4670QQsocmdZListingItemListQQsocolumnlayoutZ3QQsocustoverrideZ1

and do a search for Drake AC-4 Power Supply

There are 4 up for auction, all for less than $50 as of Thursday.

Bob
k5qwg

4047. Squelch indicator lights

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-10 01:06:41 UTC
From: Mike McAuley <mm58@earthlink.net>
Message-ID: <BE6ud.6492$yr1.2498@newsread3.news.pas.earthlink.net>
Source record: 21731

Hello,

I have four radios in my vehicle, all with remote speakers (unpowered) that are fairly close to each other. It's confusing sometimes when squelch breaks, to identify which radio is active.

I'm wondering if there is a way to rig a circuit, so that a small LED light can be inserted into the speaker wires somehow, so that the light illuminates when the speaker is active.

Thanks for any help,

Mike
Tucson, AZ

4048. Re: Tesla Coils

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-10 01:41:38 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <MPG.1c229ead234d3f70989759@news-central.giganews.com>
Source record: 21733

In article <cot227fga1@titan.btinternet.com>,
g4fgq.regp@ZZZbtinternet.com says...

> Ingenious nevertheless. But perhaps not quite in the same class as Edison.

Yeah, that must be why the SI unit of magnetic flux density is
abbreviated 'E', for 'Edison'.

-- jm

---

http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

4049. Re: Wanted: Power Supply for TR-4C

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-10 01:50:32 UTC
From: Ron <wa0kds@yahoo.com>
Message-ID: <cpavd8$gd3@dispatch.concentric.net>
Source record: 21732
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

I would really have to question that a Power Supply for your Drake could
be made cheaper than buying one unless you find enough fools to give you
all the parts and they pay the postage to ship them to you. You should
be able to find a good used AC4 or $75 and an AC3 for even less. A
Heathkit should work with minimum modification put they seem to go for
about the same amount. Try a Swan or a Galaxy but I expect they will be
just a little cheaper but not much. I believe the rule is about a $1 a
pound. Just don't look at the Collins stuff.

I might be able to find you a Transformer but it will cost you $25 plus
$15 for postage.

Bob Miller wrote:
> On Wed, 8 Dec 2004 15:31:24 -0600, "KA9S-3_Jeff" <ka9s3@comcast.net>
> wrote:
>
>
>>Wanted - Cheap - for Drake TR-4C: broken AC-4 or AC-3, or home brewed power
>>supply, or modifiable power supply by other manufacturer, or interesting
>>power transformer.
>>--------
>>I want to power up a Drake TR-4C I picked up. It did not have a power
>>supply. The price an AC-4 power supply brings today is more that the
>>transceiver is worth. Are there more radios out there than power supplies?
>>(Kind of like there are more horses asses than horses). Are the high AC-4
>>prices a function of scarcity or what?
>>
>>I've looked at the schematic of the AC-4 and decided that it's not rocket
>>science. I'm not putting together an "original" collection of Drake
>>equipment and I don't need the power supply to fit within a MS-4 speaker
>>(which I don't have and don't need). So - I think I have some economically
>>appealing options.
>>
>>- I could repair a broken AC-4, AC-3 as long as the transformer is OK.
>>
>>- Home brew power supplies do not scare me.
>>
>>- It's possible power supplies for other rigs could be adapted to work with
>>Drake gear.
>>
>>- I could build my own homebrew power supply. The critical component would
>>be the power transformer / transformers. (There are many power supply
>>designs that would work).
>>

>>Here is what the power supply needs to do:
>>
>>Input: 117 vac
>>Outputs: (12.6 vac @ 5.5A), (650 vdc @ 300mA average - 500 mA peak), (250
>>vdc @ 175 mA), (-45 to -65 vdc for bias)
>>
>>If any of you have something to sell me that will get me there, please let
>>me know (with details).
>>
>>
>>Thanks Jeff - KA9S
>>
>
>
> Go to:
>
> http://electronics.listings.ebay.com/Radios-CB-Ham-Shortwave_Ham-Radio_W0QQfromZR11QQsac
ategoryZ4670QQsocmdZListingItemListQQsocolumnlayoutZ3QQsocustoverrideZ1
>
> and do a search for Drake AC-4 Power Supply
>
> There are 4 up for auction, all for less than $50 as of Thursday.
>
> Bob
> k5qwg
>
>

4050. Re: Squelch indicator lights

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-10 02:17:37 UTC
From: w9gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <5H7ud.168061$5K2.97247@attbi_s03>
Source record: 21734

"Mike McAuley" <mm58@earthlink.net> wrote in message
news:BE6ud.6492$yr1.2498@newsread3.news.pas.earthlink.net...
> Hello,
>
> I have four radios in my vehicle, all with remote speakers (unpowered)
> that are fairly close to each other. It's confusing sometimes when
> squelch breaks, to identify which radio is active.
>
> I'm wondering if there is a way to rig a circuit, so that a small LED
> light can be inserted into the speaker wires somehow, so that the
> light illuminates when the speaker is active.
>
> Thanks for any help,
>
> Mike
> Tucson, AZ
>
Mike,

I do not know what radio mfg. or models you are using, but I believe that one of the GE MASTR heads had an option for an LED (or bulb) to perform such a function.

Greg

4051. Re: Squelch indicator lights

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-10 02:41:22 UTC
From: Mike McAuley <mm58@earthlink.net>
Message-ID: <m18ud.6568$yr1.4302@newsread3.news.pas.earthlink.net>
Source record: 21735

Thanks Greg, I'm using Radio Shack remote speakers. They're very
small cube shaped speakers with mono mini-plugs on the end of
about a 10' wire. As I said, they're unpowered. I just have them
plugged into the aux speaker out connection on the radios.
Can you tell me more about the GE MASTR units?

Thanks

> >
> Mike,
>
> I do not know what radio mfg. or models you are using, but I believe that
> one of the GE MASTR heads had an option for an LED (or bulb) to perform
such
> a function.
>
> Greg
>
>

4052. Re: Squelch indicator lights

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-10 03:50:13 UTC
From: "g.beat" <onw9mapsgb@no.arrl.spam.net>
Message-ID: <V19ud.636087$mD.210608@attbi_s02>
Source record: 21736

"Mike McAuley" <mm58@earthlink.net> wrote in message
news:m18ud.6568$yr1.4302@newsread3.news.pas.earthlink.net...
> Thanks Greg, I'm using Radio Shack remote speakers. They're very
> small cube shaped speakers with mono mini-plugs on the end of
> about a 10' wire. As I said, they're unpowered. I just have them
> plugged into the aux speaker out connection on the radios.
> Can you tell me more about the GE MASTR units?
>
> Thanks
>
> Mike

I use to operate a GE MASTR II VHF (110 watt model) mobile for 2 meters in 1980s and early 1990s. When I traded cars, I took out that big trunk unit, but never installed it in my new car.

Kevin Custer, K3KKC has a very good web site on the MASTR II units (many have been converted for repeater usage) as well as other GE models. In fact, my old repeater club installed an old retired GE MASTR PRO (had a tube final section) thirty years ago .. that worked quite well .. once WB9GGO (sk) fixed many of its little problems (like cracking the tubes every ten minutes) !

The MASTR II has a RX squelch logic signal (RUS) that is normally present at the remote head. With that logic you can turn on a small LED or 12 volt bulb when the receiver is unsquelched (useful if you have the speaker volume turned down). GE had an option which was a resistor, bulb and bracket for mounting in a spare "window" on the remote head and attaching to this logic line.
RUS is the RX squelch logic signal for the MASTR II is available at J904-8 (RX Unsquelched Sensor). The MASTR II also has another signal called "Carrier Activity Sensor" available at J901-16, but this signal usually not used (results in increased chopping of weak signals).

You may have this logic present in your radio, but it will take a schematic and/or service manual to trace it down and check how the logic is presented for usage.

Greg

4053. Re: Squelch indicator lights

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-10 03:53:22 UTC
From: "g.beat" <onw9mapsgb@no.arrl.spam.net>
Message-ID: <S49ud.168246$5K2.22681@attbi_s03>
Source record: 21737

> "Mike McAuley" <mm58@earthlink.net> wrote in message
> news:BE6ud.6492$yr1.2498@newsread3.news.pas.earthlink.net...
>> Hello,
>>
>> I have four radios in my vehicle, all with remote speakers (unpowered)
>> that are fairly close to each other. It's confusing sometimes when
>> squelch breaks, to identify which radio is active.
>>
>> I'm wondering if there is a way to rig a circuit, so that a small LED
>> light can be inserted into the speaker wires somehow, so that the
>> light illuminates when the speaker is active.
>>
>> Thanks for any help,
>>
>> Mike

I forgot the link
http://www.repeater-builder.com/ge/mastrIIindex.html

gb

4054. Re: Squelch indicator lights

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-10 04:41:05 UTC
From: Mike McAuley <mm58@earthlink.net>
Message-ID: <BN9ud.7024$0r.3937@newsread1.news.pas.earthlink.net>
Source record: 21738

Thanks again Greg for the info, but I guess what I'm looking for, is a way to trigger the LED with just speaker level voltage. I don't really want to run a separate wire to the speaker or tamper with any of the circuitry inside the radio.

"g.beat" <onw9mapsgb@no.arrl.spam.net> wrote in message news:S49ud.168246$5K2.22681@attbi_s03...
> > "Mike McAuley" <mm58@earthlink.net> wrote in message
> > news:BE6ud.6492$yr1.2498@newsread3.news.pas.earthlink.net...
> >> Hello,
> >>
> >> I have four radios in my vehicle, all with remote speakers (unpowered)
> >> that are fairly close to each other. It's confusing sometimes when
> >> squelch breaks, to identify which radio is active.
> >>
> >> I'm wondering if there is a way to rig a circuit, so that a small LED
> >> light can be inserted into the speaker wires somehow, so that the
> >> light illuminates when the speaker is active.
> >>
> >> Thanks for any help,
> >>
> >> Mike
>
> I forgot the link
> http://www.repeater-builder.com/ge/mastrIIindex.html
>
> gb
>
>

4055. Third hand light makes a great stocking stuffer

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-10 06:24:17 UTC
From: W7RBR <rbriver@yahoo.com>
Message-ID: <libud.544523$D%.421348@attbi_s51>
Source record: 21739
Cross-posted to: pdx.forsale,rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.swap

I use these head lamps to get at the dark spots behind the equipment table.
They work great when trying to plug into the speaker jack and not the key
jack. Just leave this link where the XYL can see it.

http://www.lighttorch.com/index.html

Happy Holidays!
W7RBR

4056. Re: DDS VFO plans

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-10 09:53:59 UTC
From: sp7ewl <zibi@sp7ewl.com>
Message-ID: <90b0843b81527f0aa5fd8c2b0354d26d@localhost.talkaboutradio.com>
Source record: 21741

You have to see DL4JAL dds. I modify original pcb for using dil or smd oscilator and 3,3v regulator and 7pole lpf.I use there a ad9851 and 160MHz oscilator (wit ad9850 there is a 125MHz smd oscilator).I made seweral pcb and now I try to made a separetly dds module and controler unit which use an atmel at89S52. one frien of mine modifing soft for controlling an ad9857 (14bit d/a converter).
Nice description is from VU3CNS.
I can send for those who are interesting a pcb printout and source
Vy 73's from Zibi

4057. Re: DDS VFO plans

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-10 09:54:35 UTC
From: sp7ewl <zibi@sp7ewl.com>
Message-ID: <c137e82afdf279c91ccafcc1563e76f2@localhost.talkaboutradio.com>
Source record: 21740

You have to see DL4JAL dds. I modify original pcb for using dil or smd oscilator and 3,3v regulator and 7pole lpf.I use there a ad9851 and 160MHz oscilator (wit ad9850 there is a 125MHz smd oscilator).I made seweral pcb and now I try to made a separetly dds module and controler unit which use an atmel at89S52. one frien of mine modifing soft for controlling an ad9857 (14bit d/a converter).
Nice description is from VU3CNS.
I can send for those who are interesting a pcb printout and source
Vy 73's from Zibi

4058. Re: FOR SALE - A LONG LIST

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-10 11:48:58 UTC
From: Jim Douglas <james.douglas@genesis-software.com>
Message-ID: <VNqdnURJxZ7rESTcRVn-sQ@comcast.com>
Source record: 21742

zbm2
bt
ar

"not gonna" <"not gonna"@take.it.org> wrote in message
news:41B84EE7.9030307@take.it.org...
> Jim Douglas wrote:
> > notgomma@take.it.org -- > ZBM2
> >
> > BTW does notgomma take it up the ass anymore?
>
> I don't know, I'm 'notgonna,' with n's.
>
> Why is ass fucking the first thing you resort to as a weak, immature and
> somewhat perverted attempt at an insult? Is ass sex something you think
> about a lot? If you've been abused in the past I suggest you seek help
> instead of venting on news groups. If you're an abuser I strongly
> suggest you seek help and quit trolling for victims on news groups.
>
> Once you get out of junior high your level of insult sophistication may
> improve, but I seriously doubt it, you're not even capable of finding
> adequate ways to buy the gear you're interested in or even using the
> correct terminology to find it in the first place.
>
> Go the fuck back to teevee, I think even CB is beyond you.
>
>
>

4059. Re: FedEx loses points with me

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-10 13:01:35 UTC
From: not gonna <"not gonna"@take.it.org>
Message-ID: <41B99E2F.6090603@take.it.org>
Source record: 21743

Jim wrote:
> Welcome to Affirmative Action....

Try 'The stockholder is now who we serve, screw the customers.'

>
> On Thu, 9 Dec 2004 12:43:37 +0000 (UTC), David Snyder Hale
> <david@isi.mtwilson.edu.REMOVE> wrote:
>
>
>>I'd had problems w'em all, so for me it's a real crap shoot. Lately,
>>however, FedEx seems the best, as long as I don't use "home delivery".
>>I had a package that, for several days, the tracking indicated
>>"attempted delivery". I had been home (work from home) and I KNEW that
>>no one had attempted delivery. Plus, they had left no notes. Of
>>course, FedEx people didn't believe me, they believed their computer.
>>Finally, when they were going to send it back to the shipper for
>>"exceeding delivery attempts" I insisted I talk to the driver that was
>>attempting the deliveries. They said that wasn't possible, that he
>>didn't carry a phone and he'd try one extra time. He called later on
>>his phone, asked if I could meet him somewhere. By this point I was
>>willing to do most anything. When I met him he told me that his
>>section was having trouble making all of their deliveries so his boss
>>was telling the drivers to mark bunches of their packages as "attempted
>>delivery" at the start of each morning.
>>
>>I had a USPS package, arrived with big "FRAGILE" stamps all over it,
>>and a large, perfect boot impression in the middle of the crushed-in
>>side. I kept the box, it was so funny.
>>
>>UPS mis-routes about 2/3 of the packages to my address.
>
>

4060. Re: Squelch indicator lights

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-10 13:57:51 UTC
From: xpyttl <xpyttl_NOSPAM@earthling.net>
Message-ID: <WYhud.12287$Rq3.105@fe04.lga>
Source record: 21744

"Mike McAuley" <mm58@earthlink.net> wrote in message
news:BN9ud.7024$0r.3937@newsread1.news.pas.earthlink.net...
> Thanks again Greg for the info, but I guess what I'm looking for, is a way
> to trigger the LED with just speaker level voltage. I don't really want to
> run a separate wire to the speaker or tamper with any of the circuitry
> inside the radio.

This doesn't sound much like rocket science, although it strikes me as more hassle than it should be. First, you want to sample the audio with a high impedance -- probably an op amp would do here. Then, you rectify the noise and feed a comparator, or maybe just a transistor. Use that to drive a LED.

The actual mechanics of getting a wire to sample each speaker and then placing an LED near each radio, or in some sort of arrangement that helps you know what radio, seems to be as much of a hassle as the electronics. Maybe you have a box that connects to each radio and then from there to the speakers. If you make each LED a different color you would eventually associate the color with the radio. Might work better than getting used to the position if the LEDs are all close.

Interesting problem though. Practically all of my radios have either an LED or an indication on the LCD that the squelch is open. Could be because I tend to favor Icoms. But it doesn't seem to help remind me to engage brain and think about what radio is talking before I pick up the mike!

--McD

4061. Re: Wanted (to buy): 2 meter power amplifier...

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-10 15:31:55 UTC
From: Matt <pissoff@spammers.suck.com>
Message-ID: <cpcfhc$cr7$1@otis.netspace.net.au>
Source record: 21745
Cross-posted to: alt.ham-radio.marketplace,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,alt.ham-radio.vhf-uhf

"Arthur E. Sowers" <advocacy@sdf.lonestar.org> wrote in message
news:Pine.NEB.4.61.0412081727220.13448@sdf.lonestar.org...
>
>
>
> On Wed, 8 Dec 2004, Barry OGrady wrote:
>
> > Date: Wed, 08 Dec 2004 23:22:22 +1100
> > From: Barry OGrady <god_freee_jones@hotmail.com>
> > Newsgroups: alt.ham-radio.marketplace, rec.radio.amateur.boatanchors,
> > rec.radio.amateur.equipment, rec.radio.amateur.homebrew,
> > alt.ham-radio.vhf-uhf
> > Subject: Re: Wanted (to buy): 2 meter power amplifier...
> >
> > On Wed, 8 Dec 2004 00:06:52 +0000, "Arthur E. Sowers"
<advocacy@sdf.lonestar.org> wrote:
> >
> >> I need an aligator 2 meter amplifier for FM ragchews with people I've
> >> known for a long time but are now at a fringe ground-wave distance
since I
> >> moved away from them.
> >
> > What metre band do you want it for, and what would the meters display?
>
> Um...let me give you a "english translation" for the "shop talk". The word
> "alligator" means a pretty hefty power level. The "2 meter" part means the
> 2 meter amateur band. Most hams know this means the 144.000 to 148.000 mHz
> range of frequencies. "What would the meters display?" Well, that's your
> question since its pretty clear you don't have what I'm interested in.
> But, one possibility I'd be interested in would be a homebrew job that had
> at least grid and plate current panel meters, but a builder could have put
> in a rotary switch to connect one panel meter to different parts of the
> circuit. Ever hear of a D'arsonval movement?
>
> Art W4PON

G'day Art, don't worry about BOG (as he is also known), he has a bee in his
bonnet about the "proper" use (i.e. traditional English) of the English
language - he is always trying to get people to use "metre" rather than
"meter" when referencing frequencies or lengths. He really is a tool, but
most people just ignore him.

Matt

4062. FA:30 SP-600 MISC PARTS + MORE

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-10 17:24:40 UTC
From: Heytubeguy <heytubeguy@worldnet.att.net>
Message-ID: <sZkud.110732$7i4.51000@bgtnsc05-news.ops.worldnet.att.net>
Source record: 21746
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

30 NOS SP-600 PARTS + other stuff too, see at:

http://search.ebay.com/_W0QQgotopageZ1QQsassZheytubeguyQQsorecordsperpageZ25QQsosortorderZ1QQsosortpropertyZ1

tnx for looking. heytubeguy

4063. FA: HRO COILS 1,2,3,4?,6 + MORE

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-10 17:30:43 UTC
From: Heytubeguy <heytubeguy@worldnet.att.net>
Message-ID: <73lud.110748$7i4.79702@bgtnsc05-news.ops.worldnet.att.net>
Source record: 21747

HRO COILS #: 1,2,3,4?,6 + OTHER STUFF TOO, SEE AT

http://search.ebay.com/_W0QQgotopageZ1QQsassZheytubeguyQQsorecordsperpageZ25QQsosortorderZ1QQsosortpropertyZ1

Tnx for looking heytubeguy

4064. Re: Third hand light makes a great stocking stuffer

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-10 22:27:23 UTC
From: John P Vassel <heckufaguy@hotmail.com>
Message-ID: <Xns95BBB193AF929heckufaguyhotmailcom@216.196.97.142>
Source record: 21648
Cross-posted to: pdx.forsale,rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.swap

"W7RBR" <rbriver@yahoo.com> wrote in news:libud.544523$D%.421348@attbi_s51:

> Happy Holidays!
> W7RBR
>

Did you not think we'd put your call signs address within miles of this companys address?

I dont really mind a nice product being pointed out, but I do take offense to you posting your own commercial business as 'a helping hint'.

john

4065. Re: Third hand light makes a great stocking stuffer

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-10 23:27:50 UTC
From: Dave Bushong <db@9y.com>
Message-ID: <eO6dnf3b4ZhrrSfcRVn-hA@adelphia.com>
Source record: 21649
Cross-posted to: pdx.forsale,rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.swap

John P Vassel wrote:
> "W7RBR" <rbriver@yahoo.com> wrote in news:libud.544523$D%.421348@attbi_s51:
>
>
>>Happy Holidays!
>>W7RBR
>>
>
>
> Did you not think we'd put your call signs address within miles of this
> companys address?
>
> I dont really mind a nice product being pointed out, but I do take offense
> to you posting your own commercial business as 'a helping hint'.
>
> john

John,

I mostly agree with you, but I have seen a lot worse in these groups,
and you have to give the guy credit for being truthful with his identity.

And just to keep it somewhat on-topic (I can't imagine how to do so with
this many groups), I've used a similar product that I got at Home Depot
(cheaper there), and I was AMAZED at how well it works, exactly the way
that RBR mentioned. When I'm digging around behind my computer, or
amplifier, or my HF rig, looking for the right jack, etc., it it 100x
better than using a lamp or handheld flashlight. I'm farsighted and
have to use glasses for anything closer than 3 feet, and bright light
really helps. Aha! My post is relevent! At least, to other old guys
like me.

Disclaimer: I don't know W7RBR nor anything about his business.

73,
Dave

4066. Re: DDS VFO plans

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-11 00:59:35 UTC
From: TW <kilocycles**@**yahoo.com>
Message-ID: <3ahkr0pjm3cq45tc1a68vq6oqi5sh9h3j7@4ax.com>
Source record: 21650

Zibi,
I saw Daniel, YO8RGJ's DDS on RADIOAMATOR.RO along with your comment
on that page. I am interested in the plans. Please send to
<kilocycles***@***yahoo.com>(without the ***).

Tnx,
Ted KX4OM

On Fri, 10 Dec 2004 04:54:35 -0500, "sp7ewl" <zibi@sp7ewl.com> wrote:

>You have to see DL4JAL dds. I modify original pcb for using dil or smd
>oscilator and 3,3v regulator and 7pole lpf.I use there a ad9851 and 160MHz
>oscilator (wit ad9850 there is a 125MHz smd oscilator).I made seweral pcb
>and now I try to made a separetly dds module and controler unit which use
>an atmel at89S52. one frien of mine modifing soft for controlling an
>ad9857 (14bit d/a converter).
>Nice description is from VU3CNS.
>I can send for those who are interesting a pcb printout and source
>Vy 73's from Zibi

4067. Re: Squelch indicator lights

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-11 01:08:34 UTC
From: John Smith <kd5yikes@mindspring.com>
Message-ID: <mMrud.7737$0r.3856@newsread1.news.pas.earthlink.net>
Source record: 21651

"Mike McAuley" <mm58@earthlink.net> wrote in message
news:BE6ud.6492$yr1.2498@newsread3.news.pas.earthlink.net...
> Hello,
>
> I have four radios in my vehicle, all with remote speakers (unpowered)
> that are fairly close to each other. It's confusing sometimes when
> squelch breaks, to identify which radio is active.
>
> I'm wondering if there is a way to rig a circuit, so that a small LED
> light can be inserted into the speaker wires somehow, so that the
> light illuminates when the speaker is active.
>
> Thanks for any help,
>
> Mike
> Tucson, AZ

I'm just going to throw this out for thought....

Try using an audio transformer as a current transformer into a high-efficiency LED. Break the wire to the speaker and insert the low impedance winding of the transformer in series. Connect the LED to the high impedance winding with an anti-parallel diode (1N4004, say). Use maybe a 10:1 turns ratio transformer (100:1 impedance ratio) from Mouser, Digikey, or Radio Shack.

If one assumes 50 mW output power into 8 Ohms, that is about 80 mA of current to the speaker. The transformer makes it about 4 mA into the LED (the 1N4004 conducts in the opposite direction). I think 50 mW is a very low estimate for the amount of audio you need in an auto. If the LED burns out, use a higher turns ratio transformer.

The LED will flicker with the audio. The louder the audio, the less flicker and the brighter the LED. Conversely, if the volume is low enough, the LED will barely flicker and be mostly off.

Anyway, just an idea.

Good luck.

John
KD5YI

4068. How to design toroid?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-11 06:26:56 UTC
From: David Snyder Hale <david@isi.mtwilson.edu.REMOVE>
Message-ID: <cpe3vg$1pjh$1@agate.berkeley.edu>
Source record: 21652

Are there tables and/or equations for designing toroids? For example,
I have some ferrite cores here, and I want to know how many turns on
what kind of core to get the inductance I need. (Calculating Q would
be nice, too.)

Tnx,

--
Dave * N3WTK (DM04xf) * http://isi.mtwilson.edu * n3wtk@arrl.net.REMOVE

4069. Re: How to design toroid?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-11 07:28:56 UTC
From: w9gb <onw9mapsgb@no.ar.spam.rl.net>
Message-ID: <Ukxud.639781$mD.149098@attbi_s02>
Source record: 21653

"David Snyder Hale" <david@isi.mtwilson.edu.REMOVE> wrote in message
news:cpe3vg$1pjh$1@agate.berkeley.edu...
> Are there tables and/or equations for designing toroids? For example,
> I have some ferrite cores here, and I want to know how many turns on
> what kind of core to get the inductance I need. (Calculating Q would
> be nice, too.)
>
> Tnx,
>
> Dave * N3WTK (DM04xf) * http://isi.mtwilson.edu * n3wtk@arrl.net.REMOVE

For a real quick calculation, you can use the Java Applet of GM0RWU
http://www.see.ed.ac.uk/~jwp/radio/design_toroid.html

gb

4070. MIC WIRING

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-11 08:24:15 UTC
From: Silvio <silvioylstra@hotmail.com>
Message-ID: <cpeaqj$i8k$1@news-02.connect.com.au>
Source record: 21654

HI ...CAN SOME ONE HELP ME.......WANT TO NO WHERE THE SEVEN WIRES OFF THE ICOM SM-8 DESK MIC, TO WHAT NUMBER PINS ON 8 PIN MIC PLUG , THE WIRERS COLORS ON MIC CORD ARE, BRAID ,PINK,YELLOW,WHITE ,BROWN ,GREEN ,AND GREY WHAT PIN NUMBERS DO THEY GO TO ....some one please help me 73s
silvio

4071. MIC WIRING HELP

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-11 08:26:48 UTC
From: Silvio <silvioylstra@hotmail.com>
Message-ID: <cpeavc$id1$1@news-02.connect.com.au>
Source record: 21655

HI ...CAN SOME ONE HELP ME.......WANT TO NO WHERE THE SEVEN WIRES OFF THE ICOM SM-8 DESK MIC, TO WHAT NUMBER PINS ON 8 PIN MIC PLUG , THE WIRERS COLORS ON MIC CORD ARE, BRAID ,PINK,YELLOW,WHITE ,BROWN ,GREEN ,AND GREY WHAT PIN NUMBERS DO THEY GO TO ....some one please help me 73s
silvio

4072. Re: How to design toroid?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-11 08:32:24 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <Dbz+fBFYCruBFAOg@ifwtech.co.uk>
Source record: 21656

David Snyder Hale wrote:
>Are there tables and/or equations for designing toroids? For example,
>I have some ferrite cores here, and I want to know how many turns on
>what kind of core to get the inductance I need. (Calculating Q would
>be nice, too.)

There's a very nice little program at:
http://www.dl5swb.de/html/mini_ring_core_calculator.htm

It has probably the most complete built-in library of cores and
dimensions, and does just about everything.

It doesn't contain Q data, but these only exist for certain cores, and
no calculation is required anyway - just read the graphs, which are on
the web.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

4073. Re: MIC WIRING

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-11 15:09:03 UTC
From: w9gb <onw9mapsgb@no.ar.spam.rl.net>
Message-ID: <j4Eud.221363$HA.15652@attbi_s01>
Source record: 21657

"Silvio" <silvioylstra@hotmail.com> wrote in message
news:cpeaqj$i8k$1@news-02.connect.com.au...
> HI ...CAN SOME ONE HELP ME.......WANT TO NO WHERE THE SEVEN WIRES OFF THE
> ICOM SM-8 DESK MIC, TO WHAT NUMBER PINS ON 8 PIN MIC PLUG , THE WIRERS
> COLORS ON MIC CORD ARE, BRAID ,PINK,YELLOW,WHITE ,BROWN ,GREEN ,AND GREY
> WHAT PIN NUMBERS DO THEY GO TO ....some one please help me 73s
> silvio
Silvio -

The color of conductors are consistently assigned to a specific "pin" on a microphone connector. I have seen identical microphones very, due to different cable sub-contract suppliers.

The color codes are not shown in the Icom SM-8 manual, just the pin assignments (for various radios)
http://www.icom.co.jp/manual/external/transceivers/SM-8.pdf

The SM-8 does have an internal pre-amplifier, powered from the Icom transceivers (at the mic connector). A VOM and wire tracing may be the best approach

w9gb

4074. Re: MIC WIRING HELP

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-11 15:48:27 UTC
From: Anthony Fremont <spam@anywhere.com>
Message-ID: <fFEud.15212$yf.1904@fe2.texas.rr.com>
Source record: 21658

"Silvio" <silvioylstra@hotmail.com> wrote in message
news:cpeavc$id1$1@news-02.connect.com.au...
> HI ...CAN SOME ONE HELP ME.......WANT TO NO WHERE THE SEVEN WIRES OFF
THE
> ICOM SM-8 DESK MIC, TO WHAT NUMBER PINS ON 8 PIN MIC PLUG , THE WIRERS
> COLORS ON MIC CORD ARE, BRAID ,PINK,YELLOW,WHITE ,BROWN ,GREEN ,AND
GREY
> WHAT PIN NUMBERS DO THEY GO TO ....some one please help me
.....73s
> silvio

On my mic (serial #14785), they go like this:

1 - white
2 - black
3 - blue
4 - NC
5 - red
6 - brown
7 - braid
8 - NC (center pin)

As you can easily see, there doesn't appear to be any hard/fast rule to
the color scheme or to the number of conductors.

4075. Re: Metal film resistors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-11 16:02:01 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <s96mr0510sm9jrsi969266phhvare2f8b5@4ax.com>
Source record: 21659

On 09 Dec 2004 19:12:18 GMT, averyfineman@aol.com (Avery Fineman)
wrote:

> Of course the resistor lead contribute some inductance. In fact,
> most of it. However that inductance is directly calculable based
> on old, available data. What remains is the resistor body itself.
> A very quick approximation of that body would be to get a scrap
> of kitchen aluminum foil and wrap it tightly around the body with
> the overlap tight around the leads to make contact. [won't make
> much difference because the body, being larger in diameter than
> the leads, will have much less inductance than those leads]

Sorry, Len, I stand to be corrected (no doubt) but surely this way of
shorting the ends together is going to make matters much worse? Aren't
you going to end up with a significant amount of capacitance between
your outer foil and the inner spiral of resistive film? Isn't that
going to just throw another complex variable into the mix and probably
completely change the resistors SRF?
--

"What is now proved was once only imagin'd." - William Blake, 1793.

4076. Re: Metal film resistors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-11 16:05:54 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <ei6mr0hff6iav02sveaec21vfek0vv6114@4ax.com>
Source record: 21660

On Tue, 07 Dec 2004 21:45:43 -0800, Roy Lewallen <w7el@eznec.com>
wrote:

>It's not at all my intent to make up more work for you to do. What I was
>mostly interested in was just how much the spiral construction of the
>resistor adds to its inductance -- is it or isn't it significant, or is
>the inductance mostly due to the component size and the leads? And it
>still seems to me that you could just measure a wrapped or painted
>resistor in the same fixture as you did the intact resistor. The
>difference in measured inductances should be the contribution of the
>spiral element.

Has anyone carried out any tests to compare conventional spiral
elements with the 'doubling-back spiral' types that claim to be
"non-inductive"? I just wonder if that doubling-back of the resistive
element to 'eliminate' inductance is as effective as it's made out to
be.
--

"What is now proved was once only imagin'd." - William Blake, 1793.

4077. Re: MIC WIRING

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-11 17:11:00 UTC
From: xpyttl <xpyttl_NOSPAM@earthling.net>
Message-ID: <uZFud.7942$OI1.5812@fe05.lga>
Source record: 21661

"w9gb" <onw9mapsgb@no.ar.spam.rl.net> wrote in message
news:j4Eud.221363$HA.15652@attbi_s01...

> The color of conductors are consistently assigned to a specific "pin" on a
> microphone connector. I have seen identical microphones very, due to
> different cable sub-contract suppliers.

And of course, the connections to the RJ45 are different across Icom radios,
too. Hopefully, the manual for *your* SM-8 should show what color has what
function. You need to mate that with the manual for your radio.

..

4078. DDS VFO

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-11 18:23:05 UTC
From: "Adrian Rees (M1LCR)" <rees.a@btconnect.com>
Message-ID: <cpfdu9$r5r$1@titan.btinternet.com>
Source record: 21662

Hi
Has anyone had any experience of building / using a DDS VFO ? (I saw the previous post from SP7EWL). I reserached the possibility of using a DDS VFO in a home brew TX/RX I want to build, and would appreciate any comments.

I am particularly interested in the DDS VFO by SS Engineering, (N3SAD).

Comments ?

Adrian Rees M1LCR

4079. Re: MIC WIRING

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-11 18:38:16 UTC
From: w9gb <onw9mapsgb@no.ar.spam.rl.net>
Message-ID: <s8Hud.174905$5K2.162603@attbi_s03>
Source record: 21663

> "Silvio" <silvioylstra@hotmail.com> wrote in message
> news:cpeaqj$i8k$1@news-02.connect.com.au...
>> HI ...CAN SOME ONE HELP ME.......WANT TO NO WHERE THE SEVEN WIRES OFF THE
>> ICOM SM-8 DESK MIC, TO WHAT NUMBER PINS ON 8 PIN MIC PLUG , THE WIRERS
>> COLORS ON MIC CORD ARE, BRAID ,PINK,YELLOW,WHITE ,BROWN ,GREEN ,AND GREY
>> WHAT PIN NUMBERS DO THEY GO TO ....some one please help me 73s
>> silvio
Silvio -

Typo on original post, and I see that Anthony Fremont opwned up his SM-8 to provide you the pin to color assignment.

BUT, the color of conductors are NOT consistently assigned to a specific "pin" on a
microphone connector. I have seen identical microphones very, due to different cable sub-contract suppliers. Please check (and confirm before soldering) .. especially the +8 VDC lead which can cause damage to the microphone and or radio if not properly conencted.

The color codes are NOT shown in the Icom SM-8 manual, just the pin assignments (for various radios)
http://www.icom.co.jp/manual/external/transceivers/SM-8.pdf

w9gb

4080. Re: How to design toroid?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-11 19:39:17 UTC
From: averyfineman@aol.com
Message-ID: <20041211143917.06515.00000343@mb-m15.aol.com>
Source record: 21664

In article <cpe3vg$1pjh$1@agate.berkeley.edu>, David Snyder Hale
<david@isi.mtwilson.edu.REMOVE> writes:

>Are there tables and/or equations for designing toroids? For example,
>I have some ferrite cores here, and I want to know how many turns on
>what kind of core to get the inductance I need. (Calculating Q would
>be nice, too.)

Not just tables/equations but a FREE downloadable program
(two in fact) from Micrometals in Anaheim, CA. To get to the
download page either click on the bottom screen icon of website

http://www.micrometals.com

or enter direct at

http://www.micrometals.com/software_index.html

The smaller file size program will produce some Q and self-
resonant frequency information but Micrometals' famous Q
curves section of their printed catalog is favored by designers.

If your cores have no identifying iron powder "mix" then you will
have to resort to basics of trying to find that out in order to use
the Micrometals' programs (which use their "mix" information
directly). Q at a particular frequency band of interest is very
dependent on the iron powder mix.

Note: I have no relationship with Micrometals but have used
their products and information for three decades applied to both
work and hobby projects with excellent results. Most of the
original Amidon packs used both Micrometals toroid forms and
their literature (reprinted with permission).

LenAnderson@ieee.org

4081. Re: Metal film resistors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-11 19:39:18 UTC
From: averyfineman@aol.com
Message-ID: <20041211143918.06515.00000344@mb-m15.aol.com>
Source record: 21666

In article <ei6mr0hff6iav02sveaec21vfek0vv6114@4ax.com>, Paul Burridge <pb@notthisbit.osiris1.co.uk> writes:

>Has anyone carried out any tests to compare conventional spiral >elements with the 'doubling-back spiral' types that claim to be >"non-inductive"? I just wonder if that doubling-back of the resistive >element to 'eliminate' inductance is as effective as it's made out to >be.

Yes, Paul, it is effective...but "effective" is relative on how you do the "doubling-back" winding. You can do a quick comparison yourself by sacrificing some magnet wire for a particular former. Cut two equal lengths of the same magnet wire. One of them is bent into a close-spaced horseshoe. Get a former, any kind, although a toroid form will be more practical for connections.

Wind the former with the unbent wire, close-wound, counting the exact number of turns. Measure that and record it. Unwind it and use the same former to wind the same number of turns using the bent-in-two piece of magnet wire, again close-wound to get the spacing very close to the first trial.

With an axial-lead former you can start with the bend at one end and work towards the other as if you are winding two wires at a time. The end of an axial-lead former presents a small problem since both ends wind up there...therefore a toroidal former is more practical to do this test. [visualize that compared to first trial] Measure and record the second trial with "doubled-back" winding.

The difference between the two trial measurements is the "cancellation" of the inductance by confusing the heck out of the poor magnetic field (it isn't sure which way it is going...one can say "it is all fluxed up").

Are those measurements useful for anything? Not really. It proves a point in a formal lab class on the basics of inductances. Trying to use a resistance-wire helix structure at MF or higher is not the best of techniques (actually rather foolish). Secondly, there's all sorts of components of an equivalent model of the "doubled-back" sort of winding and one will wind up in a psychiatric ward on trying to sort them all out. Add to that the variation between manufacturers on the physical shape, resistance (or even film) path length, winding method, and so on and the number of variables gets very high.

Practical way is to simply measure the whole device at the frequencies of interest and be done with it. If the catalog information doesn't state

a device is useful at RF (or whatever), then do NOT expect it to be good for anything but DC to audio frequencies.

I've seen where a 5 Watt power resistor was effective as BOTH a DC dropping resistor and an RF choke with the resistance winding forming an inductance. All well and good until another manufacturer's 5 Watt wire-wound resistor was tried...and didn't have the same inductance, resulting in marginal "choking." Same specs and conditions for both wire-wounds...which did NOT specify any inductance characteristics.

Ya takes chances, ya gets unusual results.

LenAnderson@ieee.org

4082. Re: Metal film resistors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-11 19:39:19 UTC
From: averyfineman@aol.com
Message-ID: <20041211143919.06515.00000345@mb-m15.aol.com>
Source record: 21665

In article <s96mr0510sm9jrsi969266phhvare2f8b5@4ax.com>, Paul Burridge
<pb@notthisbit.osiris1.co.uk> writes:

>On 09 Dec 2004 19:12:18 GMT, averyfineman@aol.com (Avery Fineman)
>wrote:
>
>> Of course the resistor lead contribute some inductance. In fact,
>> most of it. However that inductance is directly calculable based
>> on old, available data. What remains is the resistor body itself.
>> A very quick approximation of that body would be to get a scrap
>> of kitchen aluminum foil and wrap it tightly around the body with
>> the overlap tight around the leads to make contact. [won't make
>> much difference because the body, being larger in diameter than
>> the leads, will have much less inductance than those leads]
>
>Sorry, Len, I stand to be corrected (no doubt) but surely this way of
>shorting the ends together is going to make matters much worse? Aren't
>you going to end up with a significant amount of capacitance between
>your outer foil and the inner spiral of resistive film? Isn't that
>going to just throw another complex variable into the mix and probably
>completely change the resistors SRF?

Paul, don't kick yourself after reading this, but shorting out the body
with foil will put a conductor in contact with BOTH ends of the
resistor body. :-)

I mentioned that only in passing since it isn't necessary to do in order
to find out anything significant.

Finding a "self resonant frequency" involves doing several
measurements of the total R, C, and L of the device, finding the
complex R and X at each, then plotting that (a Smith Chart will do
it nicely) to see the skew shape of the curve as compared to a
perfect resistor (a single point on a Smith Chart). You will have to
work out the SRF yourself based on that information; that is going
to vary with each specified R value, film type, and the kind of laser
trimming (or whatever) is done to get the DC/low-frequency R value
precise through a film spiral or gouging or whatever. Not needed.

If you just measure the device with a bridge/instrument yielding the
complex impedance or admittance, you just apply that to the
circuit taking the device and be done with it. You will have to allow
for some adjustment in the circuit itself to compensate for the
device characteristics (whatever they come out to be).

An analytical model of the resistor is an R component in series
with an L component (due to any spiral of film, if any, plus the
length/diameter of the resistor body), but that has fringing capacity
between the ends of the leads inserted into the body...that capacity
being in parallel to the series R-L connection. You can estimate
that and do a paper exercise to see the effect for jollies...or just
skip it, use the device measurements to base the overall model as
it applies to the circuit and go on with the project.

The effect, if any, is going to be minimal with 1/4 Watt or smaller
resistors at VHF on up to low UHF bands. Nothing to worry about
provided the leads themselves follow the usual "short as possible"
rule.

One can go nuts on the intellectual paper exercise and about all
it is good for is mumbling-bragging over glasses at the local pub. :-)

LenAnderson@ieee.org

4083. Sirius radio FM out..

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-11 19:49:24 UTC
From: Joel <Joel@cyberbest.com>
Message-ID: <cbIud.82$NQ2.38@fe25.usenetserver.com>
Source record: 21667

I have a Sirius sat radio and I like it a lot. The big problem I have it use's a FM modulator to send it's output into my car radio. While that's fine if the frequency is clear, as I travel I bump into FM stations on the same frequency and it bleeds through. I know they sell switches to divert the car radio's antenna to either the normal antenna or the Sirius radio. The problem is I don't want to rip my dash to take out the radio to make that connection and was thinking that a little more power out on the FM side would help a lot. Does anyone have any ideas? A small amp for the FM out comes to mind. Anyone have any experience with anything like this?

Joel AG4QC

4084. Re: Sirius radio FM out..

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-11 21:06:58 UTC
From: w9gb <onw9mapsgb@no.ar.spam.rl.net>
Message-ID: <SjJud.175474$5K2.134941@attbi_s03>
Source record: 21668

"Joel" <Joel@cyberbest.com> wrote in message
news:cbIud.82$NQ2.38@fe25.usenetserver.com...
>I have a Sirius sat radio and I like it a lot. The big problem I have it
>use's a FM modulator to send it's output into my car radio. While that's
>fine if the frequency is clear, as I travel I bump into FM stations on the
>same frequency and it bleeds through. I know they sell switches to divert
>the car radio's antenna to either the normal antenna or the Sirius radio.
>The problem is I don't want to rip my dash to take out the radio to make
>that connection and was thinking that a little more power out on the FM
>side would help a lot. Does anyone have any ideas? A small amp for the FM
>out comes to mind. Anyone have any experience with anything like this?
>
> Joel AG4QC
If possible select an FM frequency between 88 and 92 MHz. This spectrum was
originally for LPFM, education stations. Most new stations are less than 1
kW, many in the 100 watt class. Easy to find a spare channel in many areas.

gb

4085. Re: How to design toroid?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-11 21:29:32 UTC
From: John Walton <jdwalton@comcast.net>
Message-ID: <7bGdnTqYgq3k-CbcRVn-3g@comcast.com>
Source record: 21669

Magnetics Inc. www.mag-inc.com also has downloadable freeware on their site. They have recently redone their catalog also.

"David Snyder Hale" <david@isi.mtwilson.edu.REMOVE> wrote in message news:cpe3vg$1pjh$1@agate.berkeley.edu...
> Are there tables and/or equations for designing toroids? For example,
> I have some ferrite cores here, and I want to know how many turns on
> what kind of core to get the inductance I need. (Calculating Q would
> be nice, too.)
>
> Tnx,
>
> --
> Dave * N3WTK (DM04xf) * http://isi.mtwilson.edu * n3wtk@arrl.net.REMOVE

4086. Re: Sirius radio FM out..

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-11 22:27:40 UTC
From: K9LY <k9ly@falseaddress2004.net>
Message-ID: <k9ly-453660.16274011122004@news.covad.net>
Source record: 21670

In article <cbIud.82$NQ2.38@fe25.usenetserver.com>,
"Joel" <Joel@cyberbest.com> wrote:

> I have a Sirius sat radio and I like it a lot. The big problem I have it
> use's a FM modulator to send it's output into my car radio. While that's
> fine if the frequency is clear, as I travel I bump into FM stations on the
> same frequency and it bleeds through. I know they sell switches to divert
> the car radio's antenna to either the normal antenna or the Sirius radio.
> The problem is I don't want to rip my dash to take out the radio to make
> that connection and was thinking that a little more power out on the FM side
> would help a lot. Does anyone have any ideas? A small amp for the FM out
> comes to mind. Anyone have any experience with anything like this?
>

Can the Sirius radio be set to a different FM frequency?

73,
Joe K9LY

4087. Re: DDS VFO

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-11 22:56:29 UTC
From: john cincotta <johncincotta@comcast.net>
Message-ID: <xWKud.484951$wV.454747@attbi_s54>
Source record: 21671

Adrian Rees (M1LCR) wrote:
> Hi
> Has anyone had any experience of building / using a DDS VFO ? (I saw the
> previous post from SP7EWL). I reserached the possibility of using a DDS VFO
> in a home brew TX/RX I want to build, and would appreciate any comments.
>
Adrian

I hav a dds daughter card from the njqrp club
and the picel from amqrp.

they work together to make a dds vfo.

I looked at it on my hp 140T/8555 spectrum analizer
and I could not see any spurs on my analizer.
(not exactly the best combo for this job realy designed for microwave).

amqrp has the schmatics online at therir site.

Good Luck

73 de n6plr

John C

> I am particularly interested in the DDS VFO by SS Engineering, (N3SAD).
>
> Comments ?
>
> Adrian Rees M1LCR
>
>
>

4088. Re: Sirius radio FM out..

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-12 00:19:43 UTC
From: Highland Ham <abcgm0csz.kn6whxyz@abcntlworldxyz.com>
Message-ID: <z8Mud.264$fQ.5@newsfe3-win.ntli.net>
Source record: 21672

> Can the Sirius radio be set to a different FM frequency?
==========
If your Sirius Radio has an audio output and your car radio a cassette player ; you will be able to either homebrew or purchase an audio cassette shaped transducer with an audio input ,which you stick into the cassette player , such that by "playing the transducer" you can listen to its audio input being the audio output of the Sirius radio.

That would solve your 'free FM channel " problem , although perhaps with a somewhat reduced sound fidelity compared with the FM radio route.

A long time ago I have seen articles for homebrewing the above transducer. It is a coil inside the cassette placed at short distance from the cassette players 'head' ,the coil being fed by the audio signal source. It is also a simple way to connect a ham radio transceiver to the car's loudspeaker system.
I thought that Ratshack might sell the above type of transducer.

Frank GM0CSZ / KN6WH

4089. Re: Wanted: Power Supply for TR-4C

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-12 01:01:49 UTC
From: Al Parker <anchor@ec.rr.com>
Message-ID: <1MMud.1043$fQ1.140071@twister.southeast.rr.com>
Source record: 21674
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

Hi Jeff,
Wow, what a mess of replies you got, but nobody offering to sell you
one.
I have 2 possibilities:
1 - what appears to be a hombrew "repackage" of an AC-3 on a small
chassis. It looks like the components are from an AC-3. I powered it up
some time ago to ck voltages, seemed OK, but I didn't put it to any rig.
It needs am AC cord, and has a female jack for outputs.
2 - a stout HB supply in a covered chassis like they used to put audio
amps in. I used this for a while with a T-4X. It has a terminal strip on
the back, and a cable with the proper Drake plug.
I can take digipix of both.
$25 for #1
$50 for #2
plus postage

73,
Al, W8UT
New Bern, NC
BoatAnchors appreciated here
http://www.thecompendium.net/radio/
http://www.hammarlund.info

----- Original Message -----
From: "KA9S-3_Jeff" <ka9s3@comcast.net>
Newsgroups:
rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateu
r.homebrew
Sent: Wednesday, December 08, 2004 4:31 PM
Subject: Wanted: Power Supply for TR-4C

> Wanted - Cheap - for Drake TR-4C: broken AC-4 or AC-3, or home brewed
power
> supply, or modifiable power supply by other manufacturer, or interesting
> power transformer.
> --------
> I want to power up a Drake TR-4C I picked up. It did not have a power
> supply. The price an AC-4 power supply brings today is more that the
> transceiver is worth. Are there more radios out there than power
supplies?
> (Kind of like there are more horses asses than horses). Are the high
AC-4
> prices a function of scarcity or what?
>

> I've looked at the schematic of the AC-4 and decided that it's not
rocket
> science. I'm not putting together an "original" collection of Drake
> equipment and I don't need the power supply to fit within a MS-4 speaker
> (which I don't have and don't need). So - I think I have some
economically
> appealing options.
>
> - I could repair a broken AC-4, AC-3 as long as the transformer is OK.
>
> - Home brew power supplies do not scare me.
>
> - It's possible power supplies for other rigs could be adapted to work
with
> Drake gear.
>
> - I could build my own homebrew power supply. The critical component
would
> be the power transformer / transformers. (There are many power supply
> designs that would work).
>
> Here is what the power supply needs to do:
>
> Input: 117 vac
> Outputs: (12.6 vac @ 5.5A), (650 vdc @ 300mA average - 500 mA peak),
(250
> vdc @ 175 mA), (-45 to -65 vdc for bias)
>
> If any of you have something to sell me that will get me there, please
let
> me know (with details).
>
>
> Thanks Jeff - KA9S
>
>

"KA9S-3_Jeff" <ka9s3@comcast.net> wrote in message
news:sfadnQ4GvPFG7yrcRVn-gA@comcast.com...
> Wanted - Cheap - for Drake TR-4C: broken AC-4 or AC-3, or home brewed
power
> supply, or modifiable power supply by other manufacturer, or interesting
> power transformer.
> --------

4090. Re: Metal film resistors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-12 01:01:59 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <406nr0tcn1k5h1d9jsgn49hk8p05l1p213@4ax.com>
Source record: 21673

On 11 Dec 2004 19:39:18 GMT, averyfineman@aol.com (Avery Fineman)
wrote:

>In article <ei6mr0hff6iav02sveaec21vfek0vv6114@4ax.com>, Paul Burridge
><pb@notthisbit.osiris1.co.uk> writes:
>
>>Has anyone carried out any tests to compare conventional spiral
>>elements with the 'doubling-back spiral' types that claim to be
>>"non-inductive"? I just wonder if that doubling-back of the resistive
>>element to 'eliminate' inductance is as effective as it's made out to
>>be.
>
> Yes, Paul, it is effective...

[comprehensive explanation snipped]

Thanks, Len. That's about as in depth as it gets, I reckon!
Ian swears by his VNA to do these kind of measurements, but you strike
me as the kind of guy who might know of an alternative way using more
conventional test gear... care to share?

p.
--

"What is now proved was once only imagin'd." - William Blake, 1793.

4091. Re: How to design toroid?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-12 01:20:43 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10rn77e4756q8c6@corp.supernews.com>
Source record: 21675

A lot of amateurs confuse powdered iron with ferrite. They're very different materials, and each is best for particular purposes. MicroMetals makes powdered iron cores. A number of other vendors, such as Fair-Rite, Magnetics, Ferroxcube, Siemens, and others make ferrite cores. Amidon sells both, with powdered iron part numbers beginning with T and ferrites beginning with FT.

There are many types of powdered irons and many types of ferrite. It's vital that you choose the type which is appropriate for the job. Once you do that, the design of the inductor or transformer is usually pretty straightforward. But if you choose the wrong material, you're likely to end up with a very poor component.

Most or all the manufacturers I mentioned have web sites that provide a lot of information about how to choose the right material for a particular application.

Roy Lewallen, W7EL

4092. Re: Sirius radio FM out..

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-12 03:15:03 UTC
From: R J Carpenter <rcarpen@erols.com>
Message-ID: <dtKdnQHM1KIkKibcRVn-qA@rcn.net>
Source record: 21676

"Highland Ham"
<abcgm0csz.kn6whxyz@abcntlworldxyz.com> wrote in
message
news:z8Mud.264$fQ.5@newsfe3-win.ntli.net...
> > Can the Sirius radio be set to a different FM
frequency?
> ===============
> If your Sirius Radio has an audio output and
your car radio a cassette
> player ; you will be able to either homebrew or
purchase an audio cassette
> shaped transducer with an audio input ,which
you stick into the cassette
> player , such that by "playing the transducer"
you can listen to its audio
> input being the audio output of the Sirius
radio.

Until recently, all of the sat radio boxes came
with a fake cassette of this type. Since cassette
players have vanished from new car radios, the FM
modulator is the answer these days.

I too have the interference problems using the FM
output from my XM. Fortunately my car radio still
reads cassettes. We have strong FM stations every
400 kHz around here, in some cases stations in the
Balto/DC area are just 200 kHz apart.

One of the serious problems using the FM approach
is that one must set the audio level far below
what you get from over-the-air FM stations. FM
stations process their audio to be LOUD, yet do
things to negate the 75 us preemphasis curve.
Your XM/Sirius FM modulator doesn't have all that
fancy processing, so you may have to set it as
much as 10 or 15 dB lower in level to avoid
overdeviating.

The only really good way for sat radio is a direct
audio connection of some type.

4093. Re: Third hand light makes a great stocking stuffer

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-12 03:44:51 UTC
From: Herbert Khaury <tiptoe@tulip.me>
Message-ID: <TZSdnUs4tIQplybcRVn-hQ@comcast.com>
Source record: 21677
Cross-posted to: pdx.forsale,rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.swap

Why? Is is NOT a helping hint? Oh yeah, the internet's #1 sport is
spitefulness. Save your piss for the "I made $50,000 with a $6 investment"
types.

--

"John P Vassel" <heckufaguy@hotmail.com> wrote in message
news:Xns95BBB193AF929heckufaguyhotmailcom@216.196.97.142...
> "W7RBR" <rbriver@yahoo.com> wrote in
news:libud.544523$D%.421348@attbi_s51:
>
> > Happy Holidays!
> > W7RBR
> >
>
> Did you not think we'd put your call signs address within miles of this
> companys address?
>
> I dont really mind a nice product being pointed out, but I do take offense
> to you posting your own commercial business as 'a helping hint'.
>
> john

4094. Cathode Ray Tubes

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-12 03:52:39 UTC
From: mrhaney <w4pqw@cox.net>
Message-ID: <1102823559.727658.248390@f14g2000cwb.googlegroups.com>
Source record: 21678

I have two 3FP7 tubes, If you can use them contact me ..They will go
CHEEP. W4PQW@COX.NET

4095. Re: Cathode Ray Tubes

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-12 04:04:29 UTC
From: mrhaney <w4pqw@cox.net>
Message-ID: <1102824269.343120.296100@f14g2000cwb.googlegroups.com>
Source record: 21679

W4PQW@cox.net

4096. Re: Sirius radio FM out..

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-12 05:38:39 UTC
From: Joel <Joel@cyberbest.com>
Message-ID: <EPQud.102$NQ2.79@fe25.usenetserver.com>
Source record: 21680

The Sirius radio has 88.1, 88.3 88.5 and 88.7 preset out. So I ca switch it at will.. But the problem is I have to dig around behind the radio to flip the switch.. and in some cities they have all those frequencies in use. It don't take much to over ride the modulator. I'm going to see if I can maybe make an antenna to connect to the Sirius radio to bring the level up a bit and get it closer..

I could us one of them cassette devices, but that's just another piece of equipment hanging off the front of the radio.. I already have a hf and a vhf radio. Not to mention the normal car radio.. One would think I had enough to listen too.. LOL

Joel

"K9LY" <k9ly@falseaddress2004.net> wrote in message
news:k9ly-453660.16274011122004@news.covad.net...
> In article <cbIud.82$NQ2.38@fe25.usenetserver.com>,
> "Joel" <Joel@cyberbest.com> wrote:
>
>> I have a Sirius sat radio and I like it a lot. The big problem I have it
>> use's a FM modulator to send it's output into my car radio. While that's
>> fine if the frequency is clear, as I travel I bump into FM stations on
>> the
>> same frequency and it bleeds through. I know they sell switches to divert
>> the car radio's antenna to either the normal antenna or the Sirius radio.
>> The problem is I don't want to rip my dash to take out the radio to make
>> that connection and was thinking that a little more power out on the FM
>> side
>> would help a lot. Does anyone have any ideas? A small amp for the FM out
>> comes to mind. Anyone have any experience with anything like this?
>>
>
> Can the Sirius radio be set to a different FM frequency?
>
> 73,
> Joe K9LY

4097. Re: Sirius radio FM out..

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-12 12:07:37 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <dwWud.22692$Ya4.19860@edtnps84>
Source record: 21681

Behold, Joel signalled from keyed 4-1000A filament:

> The Sirius radio has 88.1, 88.3 88.5 and 88.7 preset out.

The more complex the technology, the more inconvenient they make it for
the user *shrug*

I betcha they make you pay for the inconvenience too, eh?

--
Gregg t3h g33k
"Ratings are for transistors....tubes have guidelines"
http://geek.scorpiorising.ca

4098. Re: DDS VFO

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-12 14:54:57 UTC
From: streamliner@aol.com
Message-ID: <41bc5818.739853@usenet.magma.ca>
Source record: 21682

On Sat, 11 Dec 2004 18:23:05 +0000 (UTC), "Adrian Rees \(M1LCR\)"
<rees.a@btconnect.com> wrote:

I have built the DDS VFO2 with a few changes at:
http://www.hamradioindia.org/modules.php?name=Circuits&file=dds
Also plan to use it in a mixing type homebrew tranceiver i'm working
on. It has IF offsets, multi VFO, and many other nice features, best
one I've found so far. The IF offsets are set up for high side
injection, it wont do reverse tuning needed with low side injection. I
use a 100mhz SMT oscillator and disable the X6 multiplier in the
set-up menu. It works well up to about 35 mhz.

Good luck, VE3ELQ Nigel

>Hi
>Has anyone had any experience of building / using a DDS VFO ? (I saw the
>previous post from SP7EWL). I reserached the possibility of using a DDS VFO
>in a home brew TX/RX I want to build, and would appreciate any comments.
>
>I am particularly interested in the DDS VFO by SS Engineering, (N3SAD).
>
>Comments ?
>
>Adrian Rees M1LCR
>
>
>

4099. help: repair to VHF marine radio

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-12 17:46:01 UTC
From: Larry Gagnon <lagagnon@fakeuniserve.com>
Message-ID: <hq0pr0hvv22li9a9r0akp5nhrvtcufv4t9@4ax.com>
Source record: 21684

I am attempting to repair a Midland Model 78-100 VHF Marine Radio for a friend. I have basic radio electronics knowledge, some troubleshooting skills, a 275MHz scope, VHF sig generator, freq meter, RF power meter, a working VHF radio etc, but am unable to locate the problem.

Symptoms are: completely dead on receive and transmit on all channels, but unit powers up good, all power supply circuits and voltages are good, display and frequency display circuitry are good, no detectable cold solder joints nor saltwater corrosion anywhere, power to all chips is good.

I first suspected the PLL circuitry (due to its being common to RX and TX), but signals coming out of the PLL, prescaler and VCO chips appear ok.

Any suggestions as to where I might start looking would be greatly appreciated.

Larry Gagnon VE7EA

4100. Re: Metal film resistors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-12 17:47:00 UTC
From: averyfineman@aol.com
Message-ID: <20041212124700.10298.00000197@mb-m25.aol.com>
Source record: 21683

In article <406nr0tcn1k5h1d9jsgn49hk8p05l1p213@4ax.com>, Paul Burridge
<pb@notthisbit.osiris1.co.uk> writes:

>[comprehensive explanation snipped]
>
>Thanks, Len. That's about as in depth as it gets, I reckon!
>Ian swears by his VNA to do these kind of measurements, but you strike
>me as the kind of guy who might know of an alternative way using more
>conventional test gear... care to share?

The Vector Network Analyzers yield the complex-quantity Z or Y
directly...which is a wonderful thing for really detailed design and
checking to see if a part/device/etc. will fit an application.

A very few "RF Bridges" might do that but their upper frequency
limits are rather limited for venturing into the high end of HF and
certainly not VHF and up.

For the hobbyist lacking a VNA, I would suggest the neat little
LC-Meter from AADE. I have one and find it extremely handy
for winding lots of coils (particularly toroids) without firing up the
VHF Q-Meter now rather on its last legs and needing calibration.

I don't worry about the "intellectual exercise" sort of things, such
as "self-resonant frequency" of a resistor. That is mainly up to the
lead length rather than any spiral of resistive film in the resistor
body. The circuit to receive such a resistor has to be calculated
to take an _estimate_ of the residual/parasitic L or C with, if the
need is critical, some sort of trimmer to "tune out" that L or C.

Case in point at HF: Bandswitched coils for an old multi-band
"communications receiver" took care of tolerance variations in
those coils either by using adjustable powdered iron cores or by
individual trimmer capacitors (usually compression micas). Some
of the same method can be applied to higher frequencies, such as
a rotary ceramic or piston trimmer cap or turns-spreading/
-compressing of a toroid or solenoidal core coil to adjust the L.
The point I'm trying to make is to prepare ahead of time.

That preparation is anathema to some who just like to grab parts
and stuff them together based on old rules of thumb or imprecise
nomographs, then "hope for the best." One can get away with
that at lower HF most of the time but that gets tougher going up
in frequency. Analysis models will take care of finding a spread of
part tolerances and what to do about trimming them out. That's
all paper work and - unfortunately - shunned by many. One excuse

is "I haven't got the time!" However, bad preparation will have the TIME spent in trying to adjust something, taking comparative measurements, etc., is usually takes more time than doing the initial paper work on analyzing the circuit.

As to measurement methods with different bridges, there's lots of texts available to cover that, most of them old ("old" being at least 30 years back, heh heh). General Radio wrote up the circuit details on their old RF bridges in fine form, sometimes including that in their owner's manuals. Problem is, that sort of thing takes even more skull work to make sure of accuracy...plus planning on how to calibrate it once it is built. [ain't no good if it reads wrong or has improper calibration]

Some of the simpler bridges are the "substitution" variety such as the extremely portable RX Noise Bridge (noise excitation for the RF source makes it portable, it works fine with a known frequency source too). One arm has a calibrated R and C in parallel (the "known" side) while the other arm has the unknown with half-value of the calibrated C duplicated across the unknown. It basically reads admittance when balanced but that can be recalculated to impedance with a handy scientific calculator such as the HP 32 SII or the newer 33 model (each does a single-key complex inversion). The simplicity is what makes it good; symmetry in physical construction is easy to achieve, that increasing the accuracy of the little instrument. The known arm of the bridge can be calibrated with some of the newer digital capacitance meters that go down to picoFarads of resolution, the R part of the known arm calibrated with an accurate DVOM. A dual carbon/metal film potentiometer wired in parallel will reduce the internal distributed inductance of the varying position of the wiper arm.

One problem of those simple bridges is that one spends a LOT of time taking readings and then converting them to useful number quantities. A VNA using a microprocessor can do all that math for you and at many frequencies in an eyeblink. Reduction of TIME spent in getting data is very powerful with the VNA. An extension of that would be a Smith Chart presentation on-line (as the fancier HP analyzers had/have) for direct visualization of what the heck is going on inside something. Hobbyists are always short of time. :-(

LenAnderson@ieee.org

4101. Re: repair to VHF marine radio

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-12 18:08:55 UTC
From: Da-man <Socialwork@sucks.com>
Message-ID: <PQ%ud.12213$Ae.5822@newsread1.dllstx09.us.to.verio.net>
Source record: 21685

"Larry Gagnon" <lagagnon@fakeuniserve.com> wrote in message
news:hq0pr0hvv22li9a9r0akp5nhrvtcufv4t9@4ax.com...
>I am attempting to repair a Midland Model 78-100 VHF Marine Radio for
> a friend. I have basic radio electronics knowledge, some
> troubleshooting skills, a 275MHz scope, VHF sig generator, freq
> meter, RF power meter, a working VHF radio etc, but am unable to
> locate the problem.
>
> Symptoms are: completely dead on receive and transmit on all channels,
> but unit powers up good, all power supply circuits and voltages are
> good, display and frequency display circuitry are good, no detectable
> cold solder joints nor saltwater corrosion anywhere, power to all
> chips is good.
>
> I first suspected the PLL circuitry (due to its being common to RX and
> TX), but signals coming out of the PLL, prescaler and VCO chips appear
> ok.
>
> Any suggestions as to where I might start looking would be greatly
> appreciated.
>
> Larry Gagnon VE7EA

IS the crystal in the PLL "ON FREQUENCY"? IF it is way off - but still oscillating - due to some defect, that could cause the problem. The voltages and such may "appear" ok, but the crystal won't allow "ON CHANNEL" signals to come or go. Check your frequencies and such. The other thing common - is some of the audio stages. Are they working? How about the function switches, maybe not making full contact - especially if there is a radio/pa switch or something similar. They could create similar problems. Those are the other common things aside from the Power Supply legs. Microphone wiring is sometimes common also, a broken wire or two, won't allow it to transmit OR audio to come through to the speaker. I don't have any info on this radio to be more precise.

Lots of luck.

DM

4102. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-12 19:02:43 UTC
From: Jiminez <filterer@bigfoot.com>
Message-ID: <1102878163.423196.109910@c13g2000cwb.googlegroups.com>
Source record: 21686
Cross-posted to: rec.radio.amateur.dx, rec.radio.amateur.equipment, rec.radio.amateur.homebrew, rec.radio.amateur.misc

"> THIS country pays dearly in money and lives for the rest of the
candy ass
> world."

Another typically Ham-Shank viewpoint...

180,000 Iraqis dead for 1000 Amercians? Nice balance. What did the average Iraqi do to deserve your "protection"? Where was the threat to the US from Iraq? I don't believe any Weapons of mass destruction were found. Nor any links to Al Qaeda. And we all know what links your former president had with the Bin Laden family. 'Nuff said. Peace

4103. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-12 21:45:16 UTC
From: The Eternal Squire <eternalsquire@comcast.net>
Message-ID: <aOqdnTSFG-pwJiHcRVn-hg@comcast.com>
Source record: 21687
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

HYPE ALERT! HYPE ALERT! HYPE ALERT!

Reg Edwards wrote:
> The trouble with the 98% of USA citizens who are not aware of the existence
> of the rest of the world,

Actually, we are all too aware. Even today, the foundation of our country is based on immigration. Point to any one schoolchild ignorant in geography and histor, and he or she will point to a grandparent from the old country.

or the damage caused by world-wide indiscriminate
> use of their weapons of mass destruction,

We've only deployed two weapons of mass destruction in anger: at Hiroshima and Nagasaki. True, we've made quite a few atmospheric and underground tests since then, but *none* of them have actually been used against a target. And as far as I know, even though the US stockpiles chemical weapons we never even considered germ warfare.

Or are you speaking merely of the damage caused by deterrence? All that managed to accomplish was the quiet collapse of the Warsaw Pact.

is that they are far too
> childishly patriotic.

True, we teach patriotism to children, and hopefully this childish patriotism becomes an adult version based on government by consent of the governed. The true test of this is our continued willingness to pay taxes.

They natuarally believe their own distorted,
> hopelessly biased propaganda, fundamentally generated by their international
> oil and energy, atmospheric-polluting companies.

Sorry now. The last propaganda I have ever heard of has been generated by speechwriters in the Republican, Democratic, Libertarian, and Green parties. I don't notice the speechwriters being in the pay of multinats.
>
> Iraq, Palestine and other middle-eastern and central Asian countries are
> heading, slow-motion, towards another Vietnam, Cambodia and other places
> left poisoned and in ruins.

Not our fault. There was conflict and chaos enough caused by regional despots, absolute monarchs, and fanatics willing to see the human race extinct rather than see even a single person free of the yoke of thier

own religious totalitarianism. Our involvement is slowing this
downhill slide, not exacerbating it.

Your boys in the armed services will return
> home, not necessarily all in black bags, but in the form of many thousands
>

of unemployed hillibillies
Hey, those hillbillies were unemployed before they joined the army to
give themselves college educations and their families a better shot at
the middle class.

, drug addicts,
Soldiers now get therapy as part of their health package. Battle
fatigue is now a recognized illness that even the most gung-ho general
would fail to confuse for cowardice. Further, the Vietnam era US army
had just as huge a drug problem as the rest of society. In modern
times drug addiction rates by veterans are less than our population as a
whole.

detested outcasts of society.
Only because we treated them that way when they came home.

>
> But it need not end in that way. You are all-powerful and rich. Just find
> some teachers and educate yourselves before it's too late.

For everybody's
> sake on this small overepopulated,

A canard. The Western democracies are actually experiencing a
population decline. China and India are presently undergoing
industrial revolutions that are helping greatly to stabilize the
rate of population increase. Africa and South America are still
big problems, caused by persistent poverty, tyrranical governments,
and tribalism in lieu of the rule of law.

underfed Earth.

Another canard. The hunger problem is not caused a lack of production
capacity, but from the inability of much of the people to find work to
earn money to buy the food produced by their neighbors.

Capitalism itself causes
uneven distribution of resources, but as the world has seen, any other
system acheives worse results. Dorothy Day said it best that to tie
worth of a person to usefulness was to sin against the inherent dignity
of that person.

If we had a worldwide welfare state, our world could support a hundred
times its present population.

This is the one instance where the Roman Catholic Church actually has it
right.

>
> ==========
>
>

4104. Re: Metal film resistors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-12 21:57:04 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <2kfpr09vouvtd60ojf32tmvpvkn7ttcpmd@4ax.com>
Source record: 21688

On 12 Dec 2004 17:47:00 GMT, averyfineman@aol.com (Avery Fineman)
wrote:

[**snip**}

Thanks again, Len! I'm going to need a while to digest that lot!

p.
--

"What is now proved was once only imagin'd." - William Blake, 1793.

4105. Re: DDS VFO plans

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-12 22:08:01 UTC
From: "Janusz M." <maslan6@poczta.onet.wytnij.pl>
Message-ID: <cpifn4$3nq$1@nemesis.news.tpi.pl>
Source record: 21689

Witam.
Czy mozesz mi tez przeslac ? Z adresu email wykasuj wyraz "wytnij"
lub wez adres z callbook'a.

--
73
sq5izx

4106. OT EMI problem with stove and internet connection

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-12 22:19:12 UTC
From: default <none@defaulter.net>
Message-ID: <7edpr09ucaqbb457bqknkaefqbtkccasv6@4ax.com>
Source record: 21690

My electric stove is talking to my modem, resulting in the modem dropping its speed back or losing the connection (dial up). I can turn any burner on high and everything works. Turn the "infinite" control to a midpoint heat setting and the modem goes out to lunch.

The controls are primitive types with a heater and bimetallic strip inside them (I disassembled one to fix it). The contacts appear to be real silver.

The only place the modem and stove come together is at the CB panel they have independent circuits up to that point.

Modem line is 40 feet of UTP cat 5 up to the phone connection box. (added the twisted pair in an attempt to fix the problem) The lines are >10 feet apart everywhere except the CB panel.

Phone box and power share the same earth ground. I lifted the power connection and saw no unbalance (0 VAC) between ground and neutral with the stove cycling.

Any burner on the stove causes the problem. The small one is 600 watts the oven 2,000 watts. 240 VAC to the stove 120 to the outlets.

If I turn my stereo on (same circuit as modem and computer) and crank the volume to uncomfortable levels (unless of course I've had a few home brews) the problem goes away (and no my perception isn't at fault . . . but, truth speaking, in that condition most problems do go away)

Stereo PA has a very stiff power supply >100 joules with HF bypass photo flash caps and polystyrene layered caps. Problem only goes away with bass turned up and continuous music source, or large bass transients. (floor shaking, teeth rattling, bass)

So far I've added twisted pair to the phone connection (40 feet), a toroid to the (external) modem's wall wart transformer, and a toroid to the phone lines - in all cases for common mode rejection - not around each line.

Interested in hearing from people who have solved this problem, or just anyone with an idea of what to try next. Stove is easy to get to, computer 120 VAC easy to access, power panel less so.

Short of staying inebriated and playing the "Sheffield Drum Record" or "Lisztronique" over and over . . . (I'm willing, but my wife has a problem with that approach)

4107. Re: OT EMI problem with stove and internet connection

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-12 22:56:37 UTC
From: dplatt@radagast.org
Message-ID: <10rpj55fjo1uk1e@corp.supernews.com>
Source record: 21691

In article <7edpr09ucaqbb457bqknkaefqbtkccasv6@4ax.com>,
default <none@defaulter.net> wrote:

>My electric stove is talking to my modem, resulting in the modem
>dropping its speed back or losing the connection (dial up). I can
>turn any burner on high and everything works. Turn the "infinite"
>control to a midpoint heat setting and the modem goes out to lunch.
>
>The controls are primitive types with a heater and bimetallic strip
>inside them (I disassembled one to fix it). The contacts appear to be
>real silver.

Seems to me that you may have either (or both) of two problems: a
brief voltage drop when the stove heating element is switched on
(perhaps enough to "brown out" the modem's power supply) or a burst of
RF noise when the contacts open and close.

I'd guess that the stove heater element is drawing a pretty hefty
surge when it's first turned on, before it heats up and its resistance
increases. This might result in a one- or two-cycle voltage-drop
brownout which affects the whole circuit and may show up in other
circuits as well... it'd depend on the quality of the house wiring and
of your electrical service connection.

If this is the case, you might be able to correct its effect on the
modem by using a UPS. Unfortunately, most consumer-type "UPS"
products are actually SPS (standby power supply) designs, and they
don't turn on their inverter and supply power to the device-under-load
until there's been a brownout or power loss for a couple of cycles.
This might not be fast enough to keep your modem happy.

If your modem uses a 12 VDC supply from its wall-wart, you might be
able to fix the problem by using a "12-volt" gel cell as a power
supply, with a well-regulated DC supply of 13.4 - 13.5 volts to keep
it charged up. If the AC voltage sags for a moment, the modem
wouldn't even notice.

Another possibility is that it's a burst of RF noise, carried in
differential mode on the power wiring, when the bimetallic switch
opens or closes. A common-mode ferrite on the wall-wart cord wouldn't
help with this, I think. You could try either of two things:

- A differential-and-common mode AC-line filter, at the modem. Some
AC power strips incorporate them, and you can get ones with better
filtering/attenuation in sealed metal cans, with either wire-lead
or push-on connectors (Corcom and others make 'em, and electronics-

surplus stores usually have some).

- A snubber, at the stove itself (the source of the problem). The snubbers I've seen are usually caps of .1 - 1 uF in capacity, in series with a few ohms of resistance, in a flame-resistant plastic encapsulation. They're designed and rated for use directly across a power line (I believe they have "X" and "Y" rating codes).

You'd probably need to have one of these wired in across the line, either just before or just after the bimetallic switch. Probably the sort of thing which should be done by a licensed electrician.

A battery-powered-modem-with-float-charger-backup might also be a good way to deal with the problem if its cause is RF noise on the phone line. You could add additional filtering of the DC before it reaches the battery, to keep it well out of the modem's supply.

Hmmm... another thought. You might want to check the arrangments by which the phone lines are safety-grounded at your building's MPOE. If your phone line's grounding system is connected to the same ground rod as the power (which it probably is), and if there's any amount of "ground bounce" when the stove load is turned on or off, and if there's some amount of current leakage in the phone line protection system (e.g. if it has old-style carbon-block spike-eaters, or if there's a dirt-and-moisture current path) then it's perhaps conceivable that turning the stove on and off might result in a momentary voltage spike on the phone line due to this common-ground-path setup.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will boycott any company which has the gall to send me such ads!

4108. OXCO Info?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-12 23:48:52 UTC
From: "Leland C. Scott" <kc8ldo@arrl.net>
Message-ID: <LN-dne5tF9dFRSHcRVn-1A@comcast.com>
Source record: 21692

I have a couple of what appears to be NOS OCXO modules. The name plate data
is:

EG&G
Frequency Products Inc.
Cincinnati, Ohio

Made in USA
FSCM 58997

P/N: 62671B-1
Freq.: 5.000000 MHZ
Model: H174
Date: 9133

Crystal Oscillator

Does anybody have any data on these modules they would like to share?

--
Leland C. Scott
KC8LDO

Wireless Network
Mobile computing
on the go brought
to you by Micro$oft

4109. Re: Wanted: Power Supply for TR-4C

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-12 23:54:23 UTC
From: w9gb <onw9mapsgb@no.ar.spam.rl.net>
Message-ID: <PS4vd.250856$R05.240722@attbi_s53>
Source record: 21693
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

"KA9S-3_Jeff" <ka9s3@comcast.net> wrote in message
news:sfadnQ4GvPFG7yrcRVn-gA@comcast.com...
> Wanted - Cheap - for Drake TR-4C: broken AC-4 or AC-3, or home brewed
> power
> supply, or modifiable power supply by other manufacturer, or interesting
> power transformer.
> --------
> I want to power up a Drake TR-4C I picked up. It did not have a power
> supply. The price an AC-4 power supply brings today is more that the
> transceiver is worth. Are there more radios out there than power supplies?
> (Kind of like there are more horses asses than horses). Are the high AC-4
> prices a function of scarcity or what?
>

Jeff -

You can also purchase a replacement AC-4 PC board from Sunlight Systems,
Mike WB8VGE (The Heathkit Shop) ... very easy to upgrade an broken AC-3 or
AC-4 supply with this board.
http://www.theheathkitshop.com/

eBay Item number: 5737900137

w9gb

4110. Re: Wanted: Power Supply for TR-4C

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-12 23:55:32 UTC
From: w9gb <onw9mapsgb@no.ar.spam.rl.net>
Message-ID: <TT4vd.489901$wV.313542@attbi_s54>
Source record: 21694
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

"KA9S-3_Jeff" <ka9s3@comcast.net> wrote in message
news:sfadnQ4GvPFG7yrcRVn-gA@comcast.com...
> Wanted - Cheap - for Drake TR-4C: broken AC-4 or AC-3, or home brewed
> power
> supply, or modifiable power supply by other manufacturer, or interesting
> power transformer.
> --------
Here is what the AC-4R PC board looks like built up
http://www.theheathkitshop.com/drakeac4rreplace.html

gb

4111. Re: OT EMI problem with stove and internet connection

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-13 01:00:32 UTC
From: default <none@defaulter.net>
Message-ID: <k5ppr09jetmg0o2s4398ucpft1pl59j3jl@4ax.com>
Source record: 21695

On Sun, 12 Dec 2004 22:56:37 -0000, dplatt@radagast.org (Dave Platt)
wrote:

>In article <7edpr09ucaqbb457bqknkaefqbtkccasv6@4ax.com>,
>default <none@defaulter.net> wrote:
>
>>My electric stove is talking to my modem, resulting in the modem
>>dropping its speed back or losing the connection (dial up). I can
>>turn any burner on high and everything works. Turn the "infinite"
>>control to a midpoint heat setting and the modem goes out to lunch.
>>
>>The controls are primitive types with a heater and bimetallic strip
>>inside them (I disassembled one to fix it). The contacts appear to be
>>real silver.
>
>Seems to me that you may have either (or both) of two problems: a
>brief voltage drop when the stove heating element is switched on
>(perhaps enough to "brown out" the modem's power supply) or a burst of
>RF noise when the contacts open and close.
>
>I'd guess that the stove heater element is drawing a pretty hefty
>surge when it's first turned on, before it heats up and its resistance
>increases. This might result in a one- or two-cycle voltage-drop
>brownout which affects the whole circuit and may show up in other
>circuits as well... it'd depend on the quality of the house wiring and
>of your electrical service connection.
>
>If this is the case, you might be able to correct its effect on the
>modem by using a UPS. Unfortunately, most consumer-type "UPS"
>products are actually SPS (standby power supply) designs, and they
>don't turn on their inverter and supply power to the device-under-load
>until there's been a brownout or power loss for a couple of cycles.
>This might not be fast enough to keep your modem happy.
>
>If your modem uses a 12 VDC supply from its wall-wart, you might be
>able to fix the problem by using a "12-volt" gel cell as a power
>supply, with a well-regulated DC supply of 13.4 - 13.5 volts to keep
>it charged up. If the AC voltage sags for a moment, the modem
>wouldn't even notice.
>
>Another possibility is that it's a burst of RF noise, carried in
>differential mode on the power wiring, when the bimetallic switch
>opens or closes. A common-mode ferrite on the wall-wart cord wouldn't
>help with this, I think. You could try either of two things:

>
>- A differential-and-common mode AC-line filter, at the modem. Some
> AC power strips incorporate them, and you can get ones with better
> filtering/attenuation in sealed metal cans, with either wire-lead
> or push-on connectors (Corcom and others make 'em, and electronics-
> surplus stores usually have some).
>
>- A snubber, at the stove itself (the source of the problem). The
> snubbers I've seen are usually caps of .1 - 1 uF in capacity,
> in series with a few ohms of resistance, in a flame-resistant
> plastic encapsulation. They're designed and rated for use
> directly across a power line (I believe they have "X" and "Y"
> rating codes).
>
> You'd probably need to have one of these wired in across the line,
> either just before or just after the bimetallic switch. Probably
> the sort of thing which should be done by a licensed electrician.
>
>A battery-powered-modem-with-float-charger-backup might also be a good
>way to deal with the problem if its cause is RF noise on the phone
>line. You could add additional filtering of the DC before it reaches
>the battery, to keep it well out of the modem's supply.
>
>Hmmm... another thought. You might want to check the arrangments by
>which the phone lines are safety-grounded at your building's MPOE.
>If your phone line's grounding system is connected to the same ground
>rod as the power (which it probably is), and if there's any amount of
>"ground bounce" when the stove load is turned on or off, and if
>there's some amount of current leakage in the phone line protection
>system (e.g. if it has old-style carbon-block spike-eaters, or if
>there's a dirt-and-moisture current path) then it's perhaps
>conceivable that turning the stove on and off might result in a
>momentary voltage spike on the phone line due to this common-ground-path
>setup.

Thanks Dave

I do have a common ground for phone and AC at the box, I figured
lifting the ground and watching with a scope as the stove cycled ruled
it out. I can lift it at the 'puter end and see what happens.

Phone has a MOV protector and it was put in 5 years ago. All wiring
looks clean and AC and Phone are outside a few feet apart with no
common path (and problem doesn't get worse with rain etc.)

You did give me two ideas I hadn't thought of. Snubbers on the stove
and a battery isolator on the modem. I think it is 12 AC but the case
comes apart easily.

Make that three - brown out, my AC line runs 106 to 108 most days. I
don't complain to the power company because I figure it probably saves
me money in the long run (power bill ~$20 month for year average but

I'm frugal too). I do have a variac and can wire a boost transformer to the modem if need be. The three terminal regulator in the modem runs hot so I guess I developed a blind spot about the low voltage possibility.

Thanks again

An electrician? perish the thought. The stove is just a big metal box with a few switches and resistors in it. Besides it can be unplugged or switched at the breaker. (how I normally work on it)

4112. Re: Looking for roller inductors

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-13 08:08:37 UTC
From: Roger <Delete-Invallid.stuff.groups@tm.net>
Message-ID: <gfjqr0p3itap2kqc6e9489hj1gtqhjo2rv@4ax.com>
Source record: 21696

On Wed, 8 Dec 2004 23:35:32 +0100, "ON5MJ" <my_call_sign@skynet.be>
wrote:

>Thank you Roger for the lead. I received last week two roller coils coming
>from a French submarine scrapped in the 70's. Now I will try to find 4
>stepper motors. I also got very good ideas from Bob (anonymous) about the
>use and control of stepper motors.
>
>73 de ON5MJ - Jacques.

You are quite welcome and good luck!

Roger Halstead (K8RI & ARRL life member)
(N833R, S# CD-2 Worlds oldest Debonair)
www.rogerhalstead.com
>

4113. Re: help: repair to VHF marine radio

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-13 13:28:24 UTC
From: Joe McElvenney <ximac@btinternet.com>
Message-ID: <VA.0000006a.005e5c01@btinternet.com>
Source record: 21697

Hi,

> I am attempting to repair a Midland Model 78-100 VHF Marine Radio for
> a friend. I have basic radio electronics knowledge, some
> troubleshooting skills, a 275MHz scope, VHF sig generator, freq
> meter, RF power meter, a working VHF radio etc, but am unable to
> locate the problem.
>
> Symptoms are: completely dead on receive and transmit on all channels,
> but unit powers up good, all power supply circuits and voltages are
> good, display and frequency display circuitry are good, no detectable
> cold solder joints nor saltwater corrosion anywhere, power to all
> chips is good.
>
> I first suspected the PLL circuitry (due to its being common to RX and
> TX), but signals coming out of the PLL, prescaler and VCO chips appear
> ok.

You've not said whether you have a schematic but if so, look for the TX/RX change-over circuitry. If that is not working properly it could be disabling both parts of the transceiver. Commonly that kind of low-level switching is done by biassing a diode in the IF region or changing the gate voltage on a MOSFET. An ICOM ham rig that I repaired recently had a common 8V line switch to do just such a job.

I would ignore the transmitter and just try to get the receiver going as the fault, whatever it is, will probably be common to both as above. Coupling your signal generator into it stage by stage (starting with the last IF) should narrow things down.

Best of luck - Joe

4114. Re: help: repair to VHF marine radio

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-13 16:28:51 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <8ngrr017k5efodd45k7d5s47cpbul4sbm5@4ax.com>
Source record: 21598

On Mon, 13 Dec 2004 13:28:24 GMT, Joe McElvenney
<ximac@btinternet.com> wrote:

> I would ignore the transmitter and just try to get the receiver going
>as the fault, whatever it is, will probably be common to both as above.
>Coupling your signal generator into it stage by stage (starting with the
>last IF) should narrow things down.

Good advice. Also check the LO(s) is/are working properly. It should
be a piece of cake to track down a fault like that, certainly if you
have a schematic.
--

"What is now proved was once only imagin'd." - William Blake, 1793.

4115. Re: help: repair to VHF marine radio

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-13 17:46:12 UTC
From: crusty@REMOVE_THISlsmo.sytes.net
Message-ID: <97lrr0dpjtjho9k5b3s8bvmvoruora8uh3@4ax.com>
Source record: 21599

On Sun, 12 Dec 2004 09:46:01 -0800, Larry Gagnon <lagagnon@fakeuniserve.com>
wrote:

>I am attempting to repair a Midland Model 78-100 VHF Marine Radio for
>a friend. I have basic radio electronics knowledge, some
>troubleshooting skills, a 275MHz scope, VHF sig generator, freq
>meter, RF power meter, a working VHF radio etc, but am unable to
>locate the problem.
>
>Symptoms are: completely dead on receive and transmit on all channels,
>but unit powers up good, all power supply circuits and voltages are
>good, display and frequency display circuitry are good, no detectable
>cold solder joints nor saltwater corrosion anywhere, power to all
>chips is good.
>
>I first suspected the PLL circuitry (due to its being common to RX and
>TX), but signals coming out of the PLL, prescaler and VCO chips appear
>ok.
>
>Any suggestions as to where I might start looking would be greatly
>appreciated.
>
>Larry Gagnon VE7EA

Check the microphone. A broken ground wire may cause this.

4116. Production of High frequency Crystals.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-13 21:30:49 UTC
From: y2kvickyindia@yahoo.com
Message-ID: <7e7f2d7e.0412131330.430fda1f@posting.google.com>
Source record: 21600

Hi Group!

My question is about the production of high frequency quartz crystal blanks.
I have lapping and polishing machines with me, i made quite a few number of crystal blanks with frequency upto 20 MHz but above that around 30 to 40 MHz the blanks tend to break a lot, so i would like to get some expert advice regarding which powder to use in lapping, which carriers and other machine parameters. The machine I have is Lapping machine from Hamai.
Hope Someone can come up with some good suggestions.

Thanks in Advance.

4117. Re: Production of High frequency Crystals.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-13 22:31:59 UTC
From: Leon Heller <leon_heller@hotmail.com>
Message-ID: <41be185f$0$19166$cc9e4d1f@news-text.dial.pipex.com>
Source record: 21601

"Pankaj Trivedi" <y2kvickyindia@yahoo.com> wrote in message
news:7e7f2d7e.0412131330.430fda1f@posting.google.com...
> Hi Group!
>
> My question is about the production of high frequency quartz crystal
> blanks.
> I have lapping and polishing machines with me, i made quite a few
> number of crystal blanks with frequency upto 20 MHz but above that
> around 30 to 40 MHz the blanks tend to break a lot, so i would like to
> get some expert advice regarding which powder to use in lapping, which
> carriers and other machine parameters. The machine I have is Lapping
> machine from Hamai.
> Hope Someone can come up with some good suggestions.

Perhaps they are etched. 40 MHz fundamental crystals are readily available
from some suppliers, I've got some.

Leon
--
Leon Heller, G1HSM
http://www.geocities.com/leon_heller
http://www.kasamba.com/viewExpert.asp?conMemID=105725&Catid=1111&banID=2100

4118. Re: Sirius radio FM out..

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-14 03:18:55 UTC
From: Ken Scharf <wa2mzeNOTTHIS@bellsouth.net>
Message-ID: <jXsvd.640$Ap1.47@bignews6.bellsouth.net>
Source record: 21602

R J Carpenter wrote:
> "Highland Ham"
> <abcgm0csz.kn6whxyz@abcntlworldxyz.com> wrote in
> message
> news:z8Mud.264$fQ.5@newsfe3-win.ntli.net...
>
>>>Can the Sirius radio be set to a different FM
>
> frequency?
>
>>===============
>>If your Sirius Radio has an audio output and
>
> your car radio a cassette
>
>>player ; you will be able to either homebrew or
>
> purchase an audio cassette
>
>>shaped transducer with an audio input ,which
>
> you stick into the cassette
>
>>player , such that by "playing the transducer"
>
> you can listen to its audio
>
>>input being the audio output of the Sirius
>
> radio.
>
> Until recently, all of the sat radio boxes came
> with a fake cassette of this type. Since cassette
> players have vanished from new car radios, the FM
> modulator is the answer these days.
>
> I too have the interference problems using the FM
> output from my XM. Fortunately my car radio still
> reads cassettes. We have strong FM stations every
> 400 kHz around here, in some cases stations in the
> Balto/DC area are just 200 kHz apart.
>
> One of the serious problems using the FM approach
> is that one must set the audio level far below

> what you get from over-the-air FM stations. FM
> stations process their audio to be LOUD, yet do
> things to negate the 75 us preemphasis curve.
> Your XM/Sirius FM modulator doesn't have all that
> fancy processing, so you may have to set it as
> much as 10 or 15 dB lower in level to avoid
> overdeviating.
>
> The only really good way for sat radio is a direct
> audio connection of some type.
>
>
>
The 2005 Dodge Caravan we just ordered comes standard
with an AM/FM CD Cassette radio. Yup, it has BOTH a
cd player AND a cassette player!

BTW those cassette adaptors use a tape head run in
reverse for the coupling.

4119. Radio Homebrew

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-14 21:39:09 UTC
From: Goetz <goetz@goetz-von.com>
Message-ID: <cpnmht$fu0$1@titan.btinternet.com>
Source record: 21603

Go to www.euronium.de

The Amateur and PMR Radio Forum.

It has a 'Homebrew' section.

G&#65533;etz.

4120. Pro Transistor Tester by Labgear F/S

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-15 00:10:34 UTC
From: paul405 <nospam@ntlworld.com>
Message-ID: <_hLvd.1393$cM5.504@newsfe6-win.ntli.net>
Source record: 21604

HI THERE
Just this advert on Ebay.co.uk for a pro transistor tester
thought it might be worth a look or bid

http://cgi.ebay.co.uk/ws/eBayISAPI.dll?ViewItem&rd=1&item=5738125316&ssPageName=STRK:MESE:IT

it cheap , me thinks

de Paul

4121. Re: Production of High frequency Crystals.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-15 01:40:13 UTC
From: Jim Adney <jadney@vwtype3.org>
Message-ID: <8fosr019brndoi0g9704akdad8cm84doov@4ax.com>
Source record: 21605

On 13 Dec 2004 13:30:49 -0800 y2kvickyindia@yahoo.com (Pankaj Trivedi)
wrote:

>My question is about the production of high frequency quartz crystal
>blanks.
>I have lapping and polishing machines with me, i made quite a few
>number of crystal blanks with frequency upto 20 MHz but above that
>around 30 to 40 MHz the blanks tend to break a lot, so i would like to
>get some expert advice regarding which powder to use in lapping, which
>carriers and other machine parameters. The machine I have is Lapping
>machine from Hamai.

Are you trying to make crystals that have their fundamental resonance
at these high frequencies? One way to get around your problem would be
to use the overtone resonances. That way the crystal won't have to be
as small and fragile.

Just a guess from someone who's interested, but has no direct
experience....

-

Jim Adney jadney@vwtype3.org
Madison, WI 53711 USA

4122. Re: help: repair to VHF marine radio

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-15 01:58:57 UTC
From: Larry Gagnon <lagagnon@fakeuniserve.com>
Message-ID: <pan.2004.12.15.01.58.57.135299@fakeuniserve.com>
Source record: 21606

On Sun, 12 Dec 2004 09:46:01 -0800, Larry Gagnon wrote:

...thanks to all who responded. I have now narrowed the problem down to the VCO, no LO signal to the mixers. Unfortunately the VCO is in a 1.5" square tin-shielded box, all nicely sealed with beeswax. Wonderful, Murphy's Law ain't it that the prob is in the most hard to get at part of the radio! Wish me luck....

Larry VE7EA

4123. Re: Sirius radio FM out..

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-15 03:49:18 UTC
From: Brian - KB9BVN <kb9bvn@arrl.net>
Message-ID: <2vOvd.11441$0r.10213@newsread1.news.pas.earthlink.net>
Source record: 21607

Can you get under the hood and unplug the FM antenna?

Or maybe put a attenuator of some sort in line with it?

Or just cut off the lead in cable?

"Joel" <Joel@cyberbest.com> wrote in message
news:EPQud.102$NQ2.79@fe25.usenetserver.com...
> The Sirius radio has 88.1, 88.3 88.5 and 88.7 preset out. So I ca switch
it
> at will.. But the problem is I have to dig around behind the radio to flip
> the switch.. and in some cities they have all those frequencies in use. It
> don't take much to over ride the modulator. I'm going to see if I can
maybe
> make an antenna to connect to the Sirius radio to bring the level up a bit
> and get it closer..
>
> I could us one of them cassette devices, but that's just another piece of
> equipment hanging off the front of the radio.. I already have a hf and a
vhf
> radio. Not to mention the normal car radio.. One would think I had enough
to
> listen too.. LOL
>
> Joel
>
> "K9LY" <k9ly@falseaddress2004.net> wrote in message
> news:k9ly-453660.16274011122004@news.covad.net...
> > In article <cbIud.82$NQ2.38@fe25.usenetserver.com>,
> > "Joel" <Joel@cyberbest.com> wrote:
> >
> >> I have a Sirius sat radio and I like it a lot. The big problem I have
it
> >> use's a FM modulator to send it's output into my car radio. While
that's
> >> fine if the frequency is clear, as I travel I bump into FM stations on
> >> the
> >> same frequency and it bleeds through. I know they sell switches to
divert
> >> the car radio's antenna to either the normal antenna or the Sirius
radio.
> >> The problem is I don't want to rip my dash to take out the radio to
make
> >> that connection and was thinking that a little more power out on the FM
> >> side

> >> would help a lot. Does anyone have any ideas? A small amp for the FM
out
> >> comes to mind. Anyone have any experience with anything like this?
> >>
> >
> > Can the Sirius radio be set to a different FM frequency?
> >
> > 73,
> > Joe K9LY
>
>
>

4124. 2754P

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-15 03:52:46 UTC
From: rfgelitronics <no_spam@nowhere.com>
Message-ID: <hyOvd.59850$QJ3.15412@newssvr21.news.prodigy.com>
Source record: 21608

Does anybody know what is the latest firmware version for a 2754P?? keyboard and main controller??

By the way, thank you for all your help...the variable resolution filter is now in order

Still the 1st LO fails to lock sometimes (it seldom happens) at low frequencies and when the
instrument is cold.....

Trying to fix it......

4125. How to listen to terrorist radios ????

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-15 04:36:53 UTC
From: zendo_joystick_ankh_hero@yahoo.com.br
Message-ID: <9f63c9ae.0412142036.b7ad1c6@posting.google.com>
Source record: 21626
Cross-posted to: rec.radio.amateur.homebrew,scot.tld

I'm working for the FBI and my mission is to locate terrorist radios
in the USA.But you know, we FBI guys are a little bit brainless and so
I need your help !

How can I locate the terrorist radios?

4126. Re: How to listen to terrorist radios ????

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-15 05:00:42 UTC
From: Da-man <Socialwork@sucks.com>
Message-ID: <2APvd.12332$Ae.5479@newsread1.dllstx09.us.to.verio.net>
Source record: 21609
Cross-posted to: rec.radio.amateur.homebrew,scot.tld

"Bruno Beam" <zendo_joystick_ankh_hero@yahoo.com.br> wrote in message
news:9f63c9ae.0412142036.b7ad1c6@posting.google.com...
> I'm working for the FBI and my mission is to locate terrorist radios
> in the USA.But you know, we FBI guys are a little bit brainless and so
> I need your help !
>
> How can I locate the terrorist radios?

Nice troll!

4127. Re: FOR SALE - A LONG LIST

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-15 06:01:37 UTC
From: The Eternal Squire <eternalsquire@comcast.net>
Message-ID: <HoKdnWvVcN_cTiLcRVn-hg@comcast.com>
Source record: 21610

rec.radio.amateur.homebrew is hardly a closed society.
lighten up!

The Eternal Squire

not gonna wrote:
> Jim Douglas wrote:
>
>> notgomma@take.it.org -- > ZBM2
>>
>> BTW does notgomma take it up the ass anymore?
>
>
> I don't know, I'm 'notgonna,' with n's.
>
> Why is ass fucking the first thing you resort to as a weak, immature and
> somewhat perverted attempt at an insult? Is ass sex something you think
> about a lot? If you've been abused in the past I suggest you seek help
> instead of venting on news groups. If you're an abuser I strongly
> suggest you seek help and quit trolling for victims on news groups.
>
> Once you get out of junior high your level of insult sophistication may
> improve, but I seriously doubt it, you're not even capable of finding
> adequate ways to buy the gear you're interested in or even using the
> correct terminology to find it in the first place.
>
> Go the fuck back to teevee, I think even CB is beyond you.
>
>
>

4128. Re: How to listen to terrorist radios ????

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-15 06:42:10 UTC
From: "Dr. Anton T. Squeegee" <SpammersAreVermin@dev.null>
Message-ID: <MPG.1c297c9c2ef4b826989840@192.168.42.131>
Source record: 21611
Cross-posted to: rec.radio.amateur.homebrew,scot.tld

In article <2APvd.12332$Ae.5479@newsread1.dllstx09.us.to.verio.net>,
Socialwork@sucks.com says...

> "Bruno Beam" <zendo_joystick_ankh_hero@yahoo.com.br> wrote in message
> news:9f63c9ae.0412142036.b7ad1c6@posting.google.com...
> > I'm working for the FBI and my mission is to locate terrorist radios
> > in the USA.But you know, we FBI guys are a little bit brainless and so
> > I need your help !
> >
> > How can I locate the terrorist radios?
>
> Nice troll!

Yeah, but he already lost his amusement value. Filter files are
your friend. ;-)

--
Dr. Anton T. Squeegee, Director, Dutch Surrealist Plumbing Institute.
(Known to some as Bruce Lane, ARS KC7GR,
kyrrin (a/t) bluefeathertech[d=o=t]calm -- www.bluefeathertech.com
"If Salvador Dali had owned a computer, would it have been equipped
with surreal ports?"

4129. Re: Radio Homebrew

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-15 08:06:12 UTC
From: F8BOE <f8boe-8@bluemail.ch>
Message-ID: <41bfe265$0$28760$626a14ce@news.free.fr>
Source record: 21612

idem

Goetz wrote:
> Go to www.euronium.de
>
> The Amateur and PMR Radio Forum.
>
> It has a 'Homebrew' section.
>
> Gï¿½etz.
>
>

4130. Re: How to listen to terrorist radios ????

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-15 09:40:23 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cpp0q7cjq1@hercules.btinternet.com>
Source record: 21613
Cross-posted to: rec.radio.amateur.homebrew,scot.tld

"Bruno Beam" wrote > I'm working for the FBI and my mission is to locate terrorist radios
> in the USA.But you know, we FBI guys are a little bit brainless and so
> I need your help !
>
> How can I locate the terrorist radios?

Quick, invent something. George and Tony will never know the difference.

4131. Re: How to listen to terrorist radios ????

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-15 10:57:06 UTC
From: bigamps <bigamps@louder.net>
Message-ID: <6MUvd.8043$pg6.2821@news01.roc.ny>
Source record: 21614
Cross-posted to: rec.radio.amateur.homebrew,scot.tld

Bruno Beam wrote:
> I'm working for the FBI and my mission is to locate terrorist radios
> in the USA.But you know, we FBI guys are a little bit brainless and so
> I need your help !
>
> How can I locate the terrorist radios?

Obtain a receiver that can handle 530 kHz to 1.7 MHz, install an adequate antenna, scan this range and listen for the code words 'rush,' 'hannity,' and 'savage' among others, and you're listening to them. These stations have followers that blindly obey the dogma broadcast and are a major threat to our democracy and way of life. They will frequently put on communications from their field operatives and those ops sound just like your neighbors in their accent, vocabulary and word usage but their thinking is terrifying. The level of their infiltration is startling, it makes me fear for the future of our country.

4132. I-Q vfo

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-15 11:09:09 UTC
From: David J Windisch <davidw@copper.net>
Message-ID: <41c01b93$1_3@newsfeed.slurp.net>
Source record: 21615

Hi, all concerned:

Does anyone have an I-Q vfo (google it IYDKWTI), kit or built, for sale?

TIA & 73, Dave, N3HE

davidw@copper.net

4133. Re: How to listen to terrorist radios ????

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-15 11:58:40 UTC
From: mike@corn2.freeserve.co.uk
Message-ID: <41c026bc.7503236@news.freeserve.net>
Source record: 21616
Cross-posted to: rec.radio.amateur.homebrew,scot.tld

On 14 Dec 2004 20:36:53 -0800, zendo_joystick_ankh_hero@yahoo.com.br
(Bruno Beam) wrote:

>I'm working for the FBI and my mission is to locate terrorist radios
>in the USA.But you know, we FBI guys are a little bit brainless and so
>I need your help !
>
>How can I locate the terrorist radios?
Why don't you just phone them up and ask what frequency and scrambling
system they are using ?

4134. Re: How to listen to terrorist radios ????

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-15 12:29:58 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cppao6$647$2@sparta.btinternet.com>
Source record: 21617
Cross-posted to: rec.radio.amateur.homebrew,scot.tld

> The level of their infiltration
> is startling, it makes me fear for the future of our country.

==========

I'm afraid you've been caught in the politicians' scare-and war-mongering net. Like Reds under the bed.

The only relatively minor problems we've had in the UK have been with the USA-financed IRA and now that appears to be over and done with.

4135. Re: I-Q vfo

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-15 13:36:09 UTC
From: K7MEM <k7mem@myrealbox.com>
Message-ID: <cppek8$ne92@cui1.lmms.lmco.com>
Source record: 21618

David J Windisch wrote:
> Hi, all concerned:
>
> Does anyone have an I-Q vfo (google it IYDKWTI), kit or built, for sale?
>
> TIA & 73, Dave, N3HE
>
> davidw@copper.net

Sorry I don't have one for sale but I seem to remember that a I-Q vfo
was in the Amateur Radios Handbook several years ago. It may even be
in the newer editions. The projects in the Handbook are virtually kits.
There is usually a source of parts listed and many time you can get
the entire thing in a kit. Some of the parts may not be available
any more, but substitutes shouldn't be that hard to find.

I don't remember the year of the Handbook, but someone else may have
that.

--
Martin E. Meserve - K7MEM
http://www.k7mem.com

4136. Re: help: repair to VHF marine radio

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-15 14:40:22 UTC
From: Henry Kolesnik <kolesnik@sbcglobal.net>
Message-ID: <q1Yvd.39990$bP2.19333@newssvr12.news.prodigy.com>
Source record: 21619

watch ebay for a radio or parts..

--

73
Hank WD5JFR
"Larry Gagnon" <lagagnon@fakeuniserve.com> wrote in message
news:pan.2004.12.15.01.58.57.135299@fakeuniserve.com...
> On Sun, 12 Dec 2004 09:46:01 -0800, Larry Gagnon wrote:
>
>
> ...thanks to all who responded. I have now narrowed the problem down to
> the VCO, no LO signal to the mixers. Unfortunately the VCO is in a 1.5"
> square tin-shielded box, all nicely sealed with beeswax. Wonderful,
> Murphy's Law ain't it that the prob is in the most hard to get at part of
> the radio! Wish me luck....
>
> Larry VE7EA

4137. Re: How to listen to terrorist radios ????

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-15 14:44:28 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cppikc$75o$1@hercules.btinternet.com>
Source record: 21620
Cross-posted to: rec.radio.amateur.homebrew,scot.tld

> Why don't you just phone them up and ask what frequency and scrambling
> system they are using ?
==========

They might have gone to lunch. Try their website.

4138. Re: How to listen to terrorist radios ????

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-15 15:36:22 UTC
From: et472@FreeNet.Carleton.CA
Message-ID: <cppllm$126$1@theodyn.ncf.ca>
Source record: 21621

"Da-man" (Socialwork@sucks.com) writes:
> "Bruno Beam" <zendo_joystick_ankh_hero@yahoo.com.br> wrote in message
> news:9f63c9ae.0412142036.b7ad1c6@posting.google.com...
>> I'm working for the FBI and my mission is to locate terrorist radios
>> in the USA.But you know, we FBI guys are a little bit brainless and so
>> I need your help !
>>
>> How can I locate the terrorist radios?
>
> Nice troll!
>
>
And you fed him by including the newsgroup scot.tld when you replied.
He wanted you to disrupt that newsgroup, which is why he is cross-posting.

Michael VE2BVW

4139. Re: How to listen to terrorist radios ????

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-15 15:56:33 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <hjn0s0t55ocgttaddd6o358q3beb5krrc3@4ax.com>
Source record: 21622
Cross-posted to: rec.radio.amateur.homebrew,scot.tld

On Wed, 15 Dec 2004 10:57:06 GMT, bigamps <bigamps@louder.net> wrote:

>These stations have followers that blindly obey the dogma broadcast and
>are a major threat to our democracy and way of life. They will
>frequently put on communications from their field operatives and those
>ops sound just like your neighbors in their accent, vocabulary and word
>usage but their thinking is terrifying. The level of their infiltration
>is startling, it makes me fear for the future of our country.

Too wide a definition. Could easily be the BBC your'e describing.

--

"What is now proved was once only imagin'd." - William Blake, 1793.

4140. Re: help: repair to VHF marine radio

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-15 16:45:48 UTC
From: Larry Gagnon <lagagnon@fakeuniserve.com>
Message-ID: <pan.2004.12.15.16.45.48.769181@fakeuniserve.com>
Source record: 21623

On Wed, 15 Dec 2004 14:40:22 +0000, Henry Kolesnik wrote:

> watch ebay for a radio or parts..

You're right on there - it might come down to that! I'll make sure I don't sell it to a ham. ;-)

4141. Re: How to listen to terrorist radios ????

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-15 18:19:00 UTC
From: Da-man <Socialwork@sucks.com>
Message-ID: <gg%vd.12349$Ae.2477@newsread1.dllstx09.us.to.verio.net>
Source record: 21624

"Michael Black" <et472@FreeNet.Carleton.CA> wrote in message
news:cppllm$126$1@theodyn.ncf.ca...
>
> "Da-man" (Socialwork@sucks.com) writes:
>> "Bruno Beam" <zendo_joystick_ankh_hero@yahoo.com.br> wrote in message
>> news:9f63c9ae.0412142036.b7ad1c6@posting.google.com...
>>> I'm working for the FBI and my mission is to locate terrorist radios
>>> in the USA.But you know, we FBI guys are a little bit brainless and so
>>> I need your help !
>>>
>>> How can I locate the terrorist radios?
>>
>> Nice troll!
>>
>>
> And you fed him by including the newsgroup scot.tld when you replied.
> He wanted you to disrupt that newsgroup, which is why he is cross-posting.
>
> Michael VE2BVW
>
>

With all due respect, when I went to reply - my computer server said it
didn't recognize that group and the message may not be listed there and
asked to proceed anyway, to which I said yes. So, I am not sure why it
posted there - a computer whiz, I'm not! My intent was not any worse than
others who spot trolls. I've since deleted the person to my computers kill
file.
My apologies to that group. Hopefully they'll see it. This is probably the
one time this message won't be sent to that group - when it is now intended.
However, I'm sure my reply isn't the only one which made it there! He seems
to have caught a few.
But my reply above - to which you replied - was my last to him

DM

4142. Re: How to listen to terrorist radios ????

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-15 18:54:10 UTC
From: Me <Me@shadow.orgs>
Message-ID: <Me-67D41F.09541315122004@netnews.worldnet.att.net>
Source record: 21625
Cross-posted to: rec.radio.amateur.homebrew,scot.tld

In article <9f63c9ae.0412142036.b7ad1c6@posting.google.com>,
zendo_joystick_ankh_hero@yahoo.com.br (Bruno Beam) wrote:

> I'm working for the FBI and my mission is to locate terrorist radios
> in the USA.But you know, we FBI guys are a little bit brainless and so
> I need your help !
>
> How can I locate the terrorist radios?

Your a DUFUS, and a Giant TROLL. the FBI doesn't need you or anyone like
you to look for Terrorist Radios, as they have some of the best
Communication engineers that money can buy.

Me one who knows, as I worked with some of them, back in the day..

4143. beeswax in an oscillator compartment

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-15 21:21:28 UTC
From: Larry Gagnon <lagagnon@fakeuniserve.com>
Message-ID: <pan.2004.12.15.21.21.27.858623@fakeuniserve.com>
Source record: 21627

I posted a few days ago about repairing a VHF marine radio. Thankfully I solved my problem, locating three cold solder joints in the VCO, which entailed removing metal shields and all the beeswax that coated all the components. That was character building work!

I gather the beeswax is to ensure rigid components to maintain stability of the oscillator? Any other reasons for it? Is it necessary for me to remelt the old wax and spread it around as before, or can I get away with just reshielding the VCO?

Any suggestions appreciated.

Larry VE7EA

--
****
to reply via email remove "fake"
Microsoft will soon release their newest product: a vacuum cleaner.
It will be their only product which doesn't suck.

4144. Re: beeswax in an oscillator compartment

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-15 22:16:39 UTC
From: w9gb <onw9mapsgb@no.ar.spam.rl.net>
Message-ID: <bJ2wd.760169$8_6.596156@attbi_s04>
Source record: 21628

"Larry Gagnon" <lagagnon@fakeuniserve.com> wrote in message
news:pan.2004.12.15.21.21.27.858623@fakeuniserve.com...
>I posted a few days ago about repairing a VHF marine radio. Thankfully I
> solved my problem, locating three cold solder joints in the VCO, which
> entailed removing metal shields and all the beeswax that coated all the
> components. That was character building work!
>
> I gather the beeswax is to ensure rigid components to maintain stability
> of the oscillator? Any other reasons for it? Is it necessary for me to
> remelt the old wax and spread it around as before, or can I get away with
> just reshielding the VCO?
>
> Any suggestions appreciated.
>
> Larry VE7EA
>

Larry -

Beeswax and encapsulation seemed to be the fad for the Japanese mfg. in the early 1980s. I have heard various reasons, but mobile operation (with potential bouncing and jarring) is often mentioned.
Kenwood amateur gear had some noted PLL problems with their encapsulation materials of that period -- although they were not the only mfg. using this method.

I am curious to know the age of the transceiver and mfg.

Greg
w9gb

4145. Re: beeswax in an oscillator compartment

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-15 23:50:53 UTC
From: Leon Heller <leon_heller@hotmail.com>
Message-ID: <41c0cdde$0$16575$cc9e4d1f@news-text.dial.pipex.com>
Source record: 21629

"Larry Gagnon" <lagagnon@fakeuniserve.com> wrote in message
news:pan.2004.12.15.21.21.27.858623@fakeuniserve.com...
>I posted a few days ago about repairing a VHF marine radio. Thankfully I
> solved my problem, locating three cold solder joints in the VCO, which
> entailed removing metal shields and all the beeswax that coated all the
> components. That was character building work!
>
> I gather the beeswax is to ensure rigid components to maintain stability
> of the oscillator? Any other reasons for it? Is it necessary for me to
> remelt the old wax and spread it around as before, or can I get away with
> just reshielding the VCO?
>
> Any suggestions appreciated.

Beeswax has been used for securing the windings on toroids.

73, Leon

4146. Re: How to listen to terrorist radios ????

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-15 23:59:23 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <bqj1s0pld42ba000aoqmd07vbbgbc1ib0g@4ax.com>
Source record: 21630
Cross-posted to: rec.radio.amateur.homebrew,scot.tld

On Wed, 15 Dec 2004 18:54:10 GMT, Me <Me@shadow.orgs> wrote:

>Your a DUFUS, and a Giant TROLL. the FBI doesn't need you or anyone like
>you to look for Terrorist Radios, as they have some of the best
>Communication engineers that money can buy.
>
>
>Me one who knows, as I worked with some of them, back in the day..

Oh - it's *you*! Why didn't you say so earlier? Respect is due!
<tug-forelock, tug-forelock>
Look out everyone, it's *him* - the bloke that used to work for the
FBI!
:-D

--

"What is now proved was once only imagin'd." - William Blake, 1793.

4147. Re: beeswax in an oscillator compartment

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-16 02:06:43 UTC
From: John Moriarity <k6qq@hdo.net>
Message-ID: <10s1rdhd5em2p4c@corp.supernews.com>
Source record: 21631

> Beeswax has been used for securing the windings on toroids.

According to my boss in the late '60s and
early '70s,W.T.G. Glasspool (would you
guess he was British?), beeswax was widely
used in the past to secure coil windings,
seal slugs in the cores of forms and
transformers, etc.. Apparently it doesn't
reduce the "Q" too much, and was readily
available in those days.

73, John - K6QQ

4148. Re: beeswax in an oscillator compartment

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-16 04:21:10 UTC
From: crusty@REMOVE_THISlsmo.sytes.net
Message-ID: <1j32s0hrmha1djc5ommg9nreg07rpl6ptp@4ax.com>
Source record: 21632

On Wed, 15 Dec 2004 13:21:28 -0800, Larry Gagnon <lagagnon@fakeuniserve.com>
wrote:

>I posted a few days ago about repairing a VHF marine radio. Thankfully I
>solved my problem, locating three cold solder joints in the VCO, which
>entailed removing metal shields and all the beeswax that coated all the
>components. That was character building work!
>
>I gather the beeswax is to ensure rigid components to maintain stability
>of the oscillator? Any other reasons for it? Is it necessary for me to
>remelt the old wax and spread it around as before, or can I get away with
>just reshielding the VCO?
>
>Any suggestions appreciated.
>
>Larry VE7EA

Go ahead and remelt it. We always did when I used to work in Midland's Service
department back in the 70's. Never caused a problem.

4149. Re: beeswax in an oscillator compartment

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-16 11:15:04 UTC
From: Joe McElvenney <ximac@btinternet.com>
Message-ID: <VA.0000006c.00581cb3@btinternet.com>
Source record: 21633

Hi,

> According to my boss in the late '60s and
> early '70s,W.T.G. Glasspool (would you
> guess he was British?), beeswax was widely
> used in the past to secure coil windings,
> seal slugs in the cores of forms and
> transformers, etc.. Apparently it doesn't
> reduce the "Q" too much, and was readily
> available in those days.
>
> 73, John - K6QQ

I purchased some here in the UK from a local craft shop quite recently. It is an excellent material for holding things together as long as the temperature doesn't get too high and IMHO makes a neater job than hot-melt for holding small items onto a PCB. The trick is to keep an old iron bit especially for the job (and also for starting holes in plastic boxes.) The stuff I got is in the form of small beads and so very easily handled with a pin.

The wax in that VCO, BTW, is anti-microphonic in purpose and definitely should be re-melted. This is particularly important if the loudspeaker is in the same cabinet with the radio.

Cheers - Joe, G3LLV

4150. WaveForm Generator

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-16 12:01:34 UTC
From: m.kianzad@gmail.com
Message-ID: <1103198494.058178.30040@c13g2000cwb.googlegroups.com>
Source record: 21634

Dear All,
I want to synthesize a SINC wave with main lobe width = 100ns,
Is it possible to use a LC filter response or
a DDS or a similar approach mey be?
Can anyone help me?
Thanks

4151. Re: How to listen to terrorist radios ????

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-16 12:24:38 UTC
From: No Spam <admin@fbi.gov>
Message-ID: <41C17F7C.1020101@fbi.gov>
Source record: 21635
Cross-posted to: rec.radio.amateur.homebrew,scot.tld

Paul Burridge wrote:
> On Wed, 15 Dec 2004 10:57:06 GMT, bigamps <bigamps@louder.net> wrote:
>
>
>>These stations have followers that blindly obey the dogma broadcast and
>>are a major threat to our democracy and way of life. They will
>>frequently put on communications from their field operatives and those
>>ops sound just like your neighbors in their accent, vocabulary and word
>>usage but their thinking is terrifying. The level of their infiltration
>>is startling, it makes me fear for the future of our country.
>
>
> Too wide a definition. Could easily be the BBC your'e describing.
>

Don't forget NPR, CBS and CNN!

4152. Suggestion for prescaler up to 3GHz please ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-16 12:55:06 UTC
From: sre@lem.com
Message-ID: <264c924d.0412160455.60fa4d63@posting.google.com>
Source record: 21636

Hello,

I'm looking for a prescaler reference with a ratio of 64 and 128, able
to operate up to 3GHz.

I had in mind to use the Motorola MC12079 (64/128, 2.8GHz) but it's
discontinued. The fujitsu MB506 (64/128, 2.4GHz) is difficult to find.

Have you some other part numbers to suggest ?

Many thanks

Stephane, F1TJJ
stephrac74@wanadoo.fr

4153. Re: How to listen to terrorist radios ????

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-16 17:22:16 UTC
From: KC0EH <cvest@cox.net>
Message-ID: <bvjwd.122$c%.14@okepread05>
Source record: 21637
Cross-posted to: rec.radio.amateur.homebrew,scot.tld

I think they are listed in the Yellow Pages by the CIA.

4154. Re: How to listen to terrorist radios ????

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-16 18:45:50 UTC
From: Me <Me@shadow.orgs>
Message-ID: <Me-F5F89F.09455416122004@netnews.worldnet.att.net>
Source record: 21638
Cross-posted to: rec.radio.amateur.homebrew,scot.tld

In article <bqj1s0pld42ba000aoqmd07vbbgbc1ib0g@4ax.com>,
Paul Burridge <pb@notthisbit.osiris1.co.uk> wrote:

> On Wed, 15 Dec 2004 18:54:10 GMT, Me <Me@shadow.orgs> wrote:
>
> >Your a DUFUS, and a Giant TROLL. the FBI doesn't need you or anyone like
> >you to look for Terrorist Radios, as they have some of the best
> >Communication engineers that money can buy.
> >
> >
> >Me one who knows, as I worked with some of them, back in the day..
>
> Oh - it's *you*! Why didn't you say so earlier? Respect is due!
> <tug-forelock, tug-forelock>
> Look out everyone, it's *him* - the bloke that used to work for the
> FBI!
> :-D

Oh, Yea, It is Me, but I never worked FOR the FBI, I just worked WITH
a few of their Comms Engineers, on a few special projects. They pay
well, for my time spent........

Me

4155. Re: Suggestion for prescaler up to 3GHz please ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-16 19:26:48 UTC
From: K7ITM <k7itm@aol.com>
Message-ID: <1103225208.591255.204740@c13g2000cwb.googlegroups.com>
Source record: 21639

You might consider one of the PLL chips, such as National's LMX2326, especially if you already will have some digital control lines which you can use to program it. That particular chip can do a 1/32 prescaling, followed by a divide-by-N, but for the LMX2326, N is 3 minimum, so it doesn't do quite what you want. Maybe another such chip would. They are typically quite inexpensive.

Cheers,
Tom

4156. Re: How to listen to terrorist radios ????

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-16 20:09:54 UTC
From: Caveat Lector <oldcl@rome.com>
Message-ID: <mYlwd.65555$Af.16757@fed1read07>
Source record: 21640
Cross-posted to: rec.radio.amateur.homebrew,scot.tld

With an interpreter ??? (;-)

--
Caveat Lecter

4157. Re: I-Q vfo

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-16 20:22:36 UTC
From: Craig Johnson <cbjohns@cbjohns.com>
Message-ID: <cpsqqc$2n4e$1@si05.rsvl.unisys.com>
Source record: 21641

David,

> Does anyone have an I-Q vfo (google it IYDKWTI), kit or built, for sale?
> TIA & 73, Dave, N3HE

Sorry we ran out of them at AmQRP. The sales were brisk while they lasted.
We (George Heron and I) are currently discussing the possibility of another production run.
Let George (AmQRP) know if you are interested.

If anyone is wondering what we are talking about, you can see info and join the discussion in my
YAHOO group - DDS-VFO. I am the moderator and "doorkeeper" just to keep out spam.

Very briefly, it's a 0-30 MHz VFO that I designed. It uses a couple of PIC microcontrollers to run
an AD9854 DDS. This DDS part provides TWO outputs - I (In-phase) and Q (Quadrature - 90 degrees
shifted from the I) which allows many interesting modulation/demodulation possibilities.

I had to Google IYDKWTI and I do know what it is !. ;-)

73,
-Craig, AA&#65533;ZZ

4158. MC6844

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-16 21:22:56 UTC
From: rfgelitronics <no_spam@nowhere.com>
Message-ID: <Q0nwd.60382$QJ3.27283@newssvr21.news.prodigy.com>
Source record: 21642

Does any body have the datasheet of MC6844 DMA controller from Motorola
Also looking for MC101A video processor

4159. Re: beeswax in an oscillator compartment

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-16 21:39:12 UTC
From: Chuckie <nospam@nospam.com>
Message-ID: <32ee86F3l39d6U2@individual.net>
Source record: 21644

"Larry Gagnon" <lagagnon@fakeuniserve.com> wrote in message
news:pan.2004.12.15.21.21.27.858623@fakeuniserve.com...
> I posted a few days ago about repairing a VHF marine radio. Thankfully I
> solved my problem, locating three cold solder joints in the VCO, which
> entailed removing metal shields and all the beeswax that coated all the
> components. That was character building work!
>
> I gather the beeswax is to ensure rigid components to maintain stability
> of the oscillator? Any other reasons for it? Is it necessary for me to
> remelt the old wax and spread it around as before, or can I get away with
> just reshielding the VCO?
>
> Any suggestions appreciated.
>
> Larry VE7EA
>
> --
Beeswax goes back the the 1930s USA designed radios too.
In common radio design use since then.
It is excellent as it has a high melting point (for waxes).
Just put some it back on, it keeps the coils/wires stationary.
You should only need a line on both sides of the coil.

4160. Re: Suggestion for prescaler up to 3GHz please ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-16 21:40:19 UTC
From: St&#65533;phane REY <stephane.rey@netcourrier.com>
Message-ID: <41c200a5$0$11735$8fcfb975@news.wanadoo.fr>
Source record: 21643

Thanks for your answer Tom

I know this chip, but how do you do to output the pre-scaled signal ?
It would be suitable to use a PLL built-in prescaler if the output was
available on any pin but I don't think this is the case.
My appliaction is a frequency meter

Stephane

"K7ITM" <k7itm@aol.com> a &#65533;crit dans le message de news:
1103225208.591255.204740@c13g2000cwb.googlegroups.com...
> You might consider one of the PLL chips, such as National's LMX2326,
> especially if you already will have some digital control lines which
> you can use to program it. That particular chip can do a 1/32
> prescaling, followed by a divide-by-N, but for the LMX2326, N is 3
> minimum, so it doesn't do quite what you want. Maybe another such chip
> would. They are typically quite inexpensive.
>
> Cheers,
> Tom
>

4161. Re: MIC WIRING HELP

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-16 22:40:17 UTC
From: paul405 <nospam@ntlworld.com>
Message-ID: <l9owd.451$pf4.309@newsfe6-win.ntli.net>
Source record: 21645

best thing to do is to use your multi-meter

select each wire in turn and look for continuity
these could be the rx wires , next key up and see if the
signal on the meter drops , if so they are the TX/ox -ppt , or one is
and the other will be the gnd , one you know the ground
work around the others , to find the wire that produces
about half scale of the multi-meter , this is most likely
the audio/ or mic wire , now you know 3 wires
its getting less and less for you to have to work out ,
I presume the others must be up & down buttons
and maybe a separate voltage wire .

use the meter or try to look at the radio cct
this should tell you all the info you need to know .

de Paul

"Silvio" <silvioylstra@hotmail.com> wrote in message
news:cpeavc$id1$1@news-02.connect.com.au...
> HI ...CAN SOME ONE HELP ME.....WANT TO NO WHERE THE SEVEN WIRES OFF THE
> ICOM SM-8 DESK MIC, TO WHAT NUMBER PINS ON 8 PIN MIC PLUG , THE WIRERS
> COLORS ON MIC CORD ARE, BRAID ,PINK,YELLOW,WHITE ,BROWN ,GREEN ,AND GREY
> WHAT PIN NUMBERS DO THEY GO TO .....some one please help me 73s
> silvio
>

4162. Re: beeswax in an oscillator compartment

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-17 01:00:28 UTC
From: averyfineman@aol.com
Message-ID: <20041216200028.05880.00000241@mb-m19.aol.com>
Source record: 21646

In article <32ee86F3l39d6U2@individual.net>, "Chuckie" <nospam@nospam.com>
writes:

>"Larry Gagnon" <lagagnon@fakeuniserve.com> wrote in message
>news:pan.2004.12.15.21.21.27.858623@fakeuniserve.com...
>> I posted a few days ago about repairing a VHF marine radio. Thankfully I
>> solved my problem, locating three cold solder joints in the VCO, which
>> entailed removing metal shields and all the beeswax that coated all the
>> components. That was character building work!
>>
>> I gather the beeswax is to ensure rigid components to maintain stability
>> of the oscillator? Any other reasons for it? Is it necessary for me to
>> remelt the old wax and spread it around as before, or can I get away with
>> just reshielding the VCO?
>>
>> Any suggestions appreciated.
>>
>> Larry VE7EA
>>
>> --
>Beeswax goes back the the 1930s USA designed radios too.
>In common radio design use since then.
>It is excellent as it has a high melting point (for waxes).
>Just put some it back on, it keeps the coils/wires stationary.
>You should only need a line on both sides of the coil.

Quite true on old-time radio production, but primarily for the
lower-cost "consumer" type models.

The wax isn't from bees, but rather from other sources and is
usually called "ceresin wax." Pours easily when hot, stays hot
enough for a quick brushing-on. Unfortunately, hot spots in old
tube/valve equipment lets the wax soften and it sometimes dribbles
off and quits holding what it was supposed to hold.

O-T story: Back in 1956 when I was new to WREX-TV and on
midnight maintenance shift, I was supposed to align the air
monitor scope that sampled the transmitter output signal. The
video response was way off judging by the sync signal appearance.
Cause was the peaking coils of the internal tube video amplifier. An
hour spent with a video sweep generator and a hot iron brought the
peaking coils (pie-wound inductors sliding on 1 Watt resistor bodies)
into a good, flat video response. Early day shift complained long and
loud about "the air monitor doesn't work!" It showed the correct
waveform, not the one they were used to! :-) [nobody had been able

to fix it before and all it took was to move the coils slightly to adjust their inductance]

There's nothing special about the wax. It was a convenience to use in production, quick, easy-to-use and cheap. To do a good hold on things like inductors, I would recommend the "spar varnish" kind of varnish (made from pretroleum distilates, not the urethane type). One example of that is McCloskey "Gym Seal" intended for hard-use floor finishing and found in lumber yards and do-it-yourself stores. Varnish needs to cure overnight to be effective, doesn't drop Q any more than the polystyrene "Q Dope" (which will lose its holding power because of moisture breaking the bond to the work), and holds on infinitum (also known as at least 30 years based on my experience).

LenAnderson@ieee.org

4163. Re: WaveForm Generator

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-17 01:18:16 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10s4cuqas2apu2a@corp.supernews.com>
Source record: 21647

I'm sure there are some readers who know more about this than I do, but I haven't seen any responses. So I'll post what I know.

A Sinc wave is a non-causal waveform. That means that it starts before the excitation impulse. A perfect sinc wave starts at t = minus infinity, reaches its peak at t = 0, and extends to t = plus infinity. So only a truncated or windowed wave of some sort is possible. But even a truncated one is non-causal. That means you can't make it from any kind of passive components like an LC filter -- you need some sort of delay.

I think the only way you'll be able to generate even a truncated or windowed wave is with a digital filter. I believe an IIR (infinite impulse response) as opposed to FIR (finite impulse response) will be necessary, but I'm not terribly well acquainted with digital filtering techniques so will have to defer to others on that point. The filter would look something like ones used in digital signal processing (DSP), so you might look at references dealing with DSP for some clues.

Roy Lewallen, W7EL

m.kianzad@gmail.com wrote:
> Dear All,
> I want to synthesize a SINC wave with main lobe width = 100ns,
> Is it possible to use a LC filter response or
> a DDS or a similar approach mey be?
> Can anyone help me?
> Thanks
>

4164. Wireless Innovation Contest - Get your innovation noticed!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-17 03:00:55 UTC
From: Andrey <a8421@intergate.bc.ca>
Message-ID: <10s4ivp3mikcr85@corp.supernews.com>
Source record: 21548

Get your innovation noticed! Submit it to Wireless Innovation Contest.

If you've created something that's really making a difference, then we want to hear about it. And, more importantly, we want to tell the World about it.

2005 Wireless Innovation Contest takes place in Vancouver, BC Canada.
The 2005 Wireless Innovation Contest is out to prove how wireless is changing the world. It could be a successful product, an enterprise solution that saved your customer thousands of dollars, a government solution that helped save lives or enhanced education or an entertainment solution that has made the world a lot more fun.

Nokia, Telus Mobility and Industry Partners throw Support Behind the Contest this year. A panel of industry leaders will judge each entry and decide on a winner and runner-ups. Winners of WIC 2005 are rewarded with targeted exposure in media and at trade shows, inclusion in a special case study publication and a one-hour mentor session with the panel of judges.

More information is available at www.winbc.org/contest

4165. Re: beeswax in an oscillator compartment

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-17 04:17:45 UTC
From: zagshdjfkgl <nospam@nospam.com>
Message-ID: <32f4v3F3mkoe8U2@individual.net>
Source record: 21549

"Avery Fineman" <averyfineman@aol.com> wrote in message
news:20041216200028.05880.00000241@mb-m19.aol.com...
> In article <32ee86F3l39d6U2@individual.net>, "Chuckie" <nospam@nospam.com>
> writes:
>
> >"Larry Gagnon" <lagagnon@fakeuniserve.com> wrote in message
> >news:pan.2004.12.15.21.21.27.858623@fakeuniserve.com...
> >> I posted a few days ago about repairing a VHF marine radio. Thankfully
I
> >> solved my problem, locating three cold solder joints in the VCO, which
> >> entailed removing metal shields and all the beeswax that coated all the
> >> components. That was character building work!
> >>
> >> I gather the beeswax is to ensure rigid components to maintain
stability
> >> of the oscillator? Any other reasons for it? Is it necessary for me to
> >> remelt the old wax and spread it around as before, or can I get away
with
> >> just reshielding the VCO?
> >>
> >> Any suggestions appreciated.
> >>
> >> Larry VE7EA
> >>
> >> --
> >Beeswax goes back the the 1930s USA designed radios too.
> >In common radio design use since then.
> >It is excellent as it has a high melting point (for waxes).
> >Just put some it back on, it keeps the coils/wires stationary.
> >You should only need a line on both sides of the coil.
>
> Quite true on old-time radio production, but primarily for the
> lower-cost "consumer" type models.
>
> The wax isn't from bees, but rather from other sources and is
> usually called "ceresin wax." Pours easily when hot, stays hot
> enough for a quick brushing-on. Unfortunately, hot spots in old
> tube/valve equipment lets the wax soften and it sometimes dribbles
> off and quits holding what it was supposed to hold.
>
> O-T story: Back in 1956 when I was new to WREX-TV and on
> midnight maintenance shift, I was supposed to align the air
> monitor scope that sampled the transmitter output signal. The
> video response was way off judging by the sync signal appearance.

> Cause was the peaking coils of the internal tube video amplifier. An
> hour spent with a video sweep generator and a hot iron brought the
> peaking coils (pie-wound inductors sliding on 1 Watt resistor bodies)
> into a good, flat video response. Early day shift complained long and
> loud about "the air monitor doesn't work!" It showed the correct
> waveform, not the one they were used to! :-) [nobody had been able
> to fix it before and all it took was to move the coils slightly to
adjust
> their inductance]
>
> There's nothing special about the wax. It was a convenience to use
> in production, quick, easy-to-use and cheap. To do a good hold on
> things like inductors, I would recommend the "spar varnish" kind of
> varnish (made from pretroleum distilates, not the urethane type). One
> example of that is McCloskey "Gym Seal" intended for hard-use
> floor finishing and found in lumber yards and do-it-yourself stores.
> Varnish needs to cure overnight to be effective, doesn't drop Q any
> more than the polystyrene "Q Dope" (which will lose its holding power
> because of moisture breaking the bond to the work), and holds on
> infinitum (also known as at least 30 years based on my experience).
>
> LenAnderson@ieee.org

Remember "fish-paper"? used that in a early 1980 moto radio design.
I know the type of wax you are talking about, harder and a little darker
than beeswax.

4166. Re: beeswax in an oscillator compartment

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-17 05:11:07 UTC
From: The Eternal Squire <eternalsquire@comcast.net>
Message-ID: <jZidnbOduOH391_cRVn-rw@comcast.com>
Source record: 21550

Actually, the beeswax is a natural byproduct of 30 hertz oscillators.
Always wear gloves before opening!

:)

The Eternal Squire

Chuckie wrote:
> "Larry Gagnon" <lagagnon@fakeuniserve.com> wrote in message
> news:pan.2004.12.15.21.21.27.858623@fakeuniserve.com...
>
>>I posted a few days ago about repairing a VHF marine radio. Thankfully I
>>solved my problem, locating three cold solder joints in the VCO, which
>>entailed removing metal shields and all the beeswax that coated all the
>>components. That was character building work!
>>
>>I gather the beeswax is to ensure rigid components to maintain stability
>>of the oscillator? Any other reasons for it? Is it necessary for me to
>>remelt the old wax and spread it around as before, or can I get away with
>>just reshielding the VCO?
>>
>>Any suggestions appreciated.
>>
>>Larry VE7EA
>>
>>--
>
> Beeswax goes back the the 1930s USA designed radios too.
> In common radio design use since then.
> It is excellent as it has a high melting point (for waxes).
> Just put some it back on, it keeps the coils/wires stationary.
> You should only need a line on both sides of the coil.
>
>

4167. Re: Suggestion for prescaler up to 3GHz please ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-17 05:54:19 UTC
From: K7ITM <k7itm@aol.com>
Message-ID: <1103262859.450439.60460@f14g2000cwb.googlegroups.com>
Source record: 21551

Hi Stephane,

You should be able to program the Fo/LD output pin to echo the divider output. See "Table 4" in the data sheet. If you are intent on getting /32, you might check out the LMX2430 series. I think (from a very quick look at the data sheet) that you'll be able to go to lower division ratios with it. It also has a muxed output that can be programmed to echo the divider chain output.

Maybe someone else knows a reason this won't work...I haven't actually done it, but did look into it some time ago and didn't see anything in the data sheet that would make me think it wouldn't work. Seems like these chips are a lot easier to get than simple fast prescalers. Programmable PLL chips from other manufacturers may work well too.
Cheers,
Tom

4168. Re: WaveForm Generator

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-17 08:30:59 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <kh25s01bvunbssdrb1iako6vgb7t3f7r1j@4ax.com>
Source record: 21552

On 16 Dec 2004 04:01:34 -0800, m.kianzad@gmail.com wrote:

>I want to synthesize a SINC wave with main lobe width = 100ns,
>Is it possible to use a LC filter response or
>a DDS or a similar approach mey be?

An address counter, a lookup table (ROM/RAM) and a DAC should be able to generate any arbitrary waveform.

Since the SINC waveform is symmetric relative to T=0, you just need to store half of the waveform and reverse the up/down address counter at T=0.

Since you are going to need a sample frequency of several hundred MHz to get a clean wave shape, it might be a good idea to use a wide memory system (say 64 bit wide RAM for 8 bit DAC) and run the RAM address counter at fs/8 and either using digital multiplexers to feed a fast DAC at fs or use 8 DACs in parallel at fs/8 and use a fast analog multiplexer.

An other approach is to note that sinc(x) is sin(x)/x or 1/x * sin(x) and generate 1/x and sin(x) separately and use an analog multiplier to multiply them together. You also would have to ensure continuity at x=0. The multiplier accuracy and dynamic range can be a limiting factor in that region. Generating 1/x can be done with lookup tables or with analog multiplier divider chips (which also could generate the sin(x)/x directly) and there are of course multiple ways to generate sin(x).

A DDS chip with AM capability might also be usable by feeding the 1/x as the modulating waveform.

Paul OH3LWR

4169. Re: Wireless Innovation Contest - Get your innovation noticed!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-17 08:31:24 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <wPwwd.46301$eb3.8655@clgrps13>
Source record: 21553

Quote from site:
"The entrant shall retain the rights to the Application, excluding the
rights granted to WINBC and the Sponsors for the purpose of the Contest."

That's rare, many contests literally steal inventions.

--
Gregg t3h g33k
"Ratings are for transistors....tubes have guidelines"
http://geek.scorpiorising.ca

4170. Re: How to listen to terrorist radios ????

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-17 10:22:14 UTC
From: Highland Ham <abcgm0csz.kn6whxyz@abcntlworldxyz.com>
Message-ID: <qrywd.77$Ru3.72@newsfe2-gui.ntli.net>
Source record: 21554

"Michael Black" <et472@FreeNet.Carleton.CA> wrote in message
news:cppllm$126$1@theodyn.ncf.ca...
>
> "Da-man" (Socialwork@sucks.com) writes:
> > "Bruno Beam" <zendo_joystick_ankh_hero@yahoo.com.br> wrote in message
> > news:9f63c9ae.0412142036.b7ad1c6@posting.google.com...
> >> I'm working for the FBI and my mission is to locate terrorist radios
> >> in the USA.But you know, we FBI guys are a little bit brainless and so
> >> I need your help !
> >>
> >> How can I locate the terrorist radios?
> >
> > Nice troll!
> >
> >
> And you fed him by including the newsgroup scot.tld when you replied.
> He wanted you to disrupt that newsgroup, which is why he is cross-posting.
==========
May I suggest we all exercise some discipline by just ignoring these
messages ,being trolls and just respond to those messages for which this
news group is intended. Let's keep this NG clean.

Frank GM0CSZ / KN6WH

4171. where to get burs for Dremeling PCBs?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-17 15:23:51 UTC
From: K9LY <k9ly@falseaddress2004.net>
Message-ID: <k9ly-561AC1.09235117122004@news.covad.net>
Source record: 21555

Hello. When I make PCBs for homebrew projects, I often use a Dremel Moto-Tool with a dental bur for cutting the pattern into the copper foil. About ten years ago I bought a bunch of burs from someone at the Dayton Hamvention. Now they're worn out, and I'd like to get some more. Does anyone know where a hobbyist can buy these things? See photo at alt.binaries.pictures.radio .

73,
Joe K9LY

4172. Re: where to get burs for Dremeling PCBs?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-17 15:40:57 UTC
From: joe <dental_dude@nospam.com>
Message-ID: <41C2FE07.44C815E4@nospam.com>
Source record: 21557

hi joe,

why not ask your dentist ? they may have a in house lab
and may order or give you a few that are not too worn out ?

K9LY wrote:

> Hello. When I make PCBs for homebrew projects, I often use a Dremel
> Moto-Tool with a dental bur for cutting the pattern into the copper
> foil. About ten years ago I bought a bunch of burs from someone at the
> Dayton Hamvention. Now they're worn out, and I'd like to get some more.
> Does anyone know where a hobbyist can buy these things? See photo at
> alt.binaries.pictures.radio .
>
> 73,
> Joe K9LY

4173. Re: where to get burs for Dremeling PCBs?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-17 15:42:51 UTC
From: joe <dental_dude@nospam.com>
Message-ID: <41C2FE7A.694B4FF3@nospam.com>
Source record: 21556

home depot and hobby stores carry the dermel lines.

K9LY wrote:

> Hello. When I make PCBs for homebrew projects, I often use a Dremel
> Moto-Tool with a dental bur for cutting the pattern into the copper
> foil. About ten years ago I bought a bunch of burs from someone at the
> Dayton Hamvention. Now they're worn out, and I'd like to get some more.
> Does anyone know where a hobbyist can buy these things? See photo at
> alt.binaries.pictures.radio .
>
> 73,
> Joe K9LY

4174. Re: where to get burs for Dremeling PCBs?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-17 16:09:21 UTC
From: Dale Parfitt <par@parelectronics.com>
Message-ID: <RwDwd.13$2X6.7@trnddc07>
Source record: 21558

"K9LY" <k9ly@falseaddress2004.net> wrote in message
news:k9ly-561AC1.09235117122004@news.covad.net...
> Hello. When I make PCBs for homebrew projects, I often use a Dremel
> Moto-Tool with a dental bur for cutting the pattern into the copper
> foil. About ten years ago I bought a bunch of burs from someone at the
> Dayton Hamvention. Now they're worn out, and I'd like to get some more.
> Does anyone know where a hobbyist can buy these things? See photo at
> alt.binaries.pictures.radio .
>
> 73,
> Joe K9LY

Hi Joe,

We use a dremel carbide cone shaped tool in or mills for PCB's. Lowe's &
Home Depot

Dale W4OP

4175. Re: WaveForm Generator

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-17 16:25:20 UTC
From: Zeso <nospam@nospam.com>
Message-ID: <32gfj8F3k6temU1@individual.net>
Source record: 21559

<m.kianzad@gmail.com> wrote in message
news:1103198494.058178.30040@c13g2000cwb.googlegroups.com...
> Dear All,
> I want to synthesize a SINC wave with main lobe width = 100ns,
> Is it possible to use a LC filter response or
> a DDS or a similar approach mey be?
> Can anyone help me?
> Thanks
>

Do you mean in the frequency domain? that is one pulse 100 ns wide, and
that is it, no filter needed.

Anything else, you need to be clearer on what you want.

4176. Re: 2754P

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-17 18:50:34 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <MPG.1c2cca549b1e6e9298975e@news-central.giganews.com>
Source record: 21560

In article <hyOvd.59850$QJ3.15412@newssvr21.news.prodigy.com>,
no_spam@nowhere.com says...
> Does anybody know what is the latest firmware version for a 2754P?? keyboard
> and main controller??

The latest I've seen is 9.7. It will support the 2754/P, but you may
need to experiment with the DIP switches.

ftp://ftp.bluefeathertech.com/pub/electronics/testgear/Tektronix/firmwar
e/497/497p_9_7.zip

> Still the 1st LO fails to lock sometimes (it seldom happens) at low
> frequencies and when the
> instrument is cold.....
>
> Trying to fix it......

That's a fairly-common problem, and I've never been able to nail it
down. Good luck, and please report back if you discover the secret. :)

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

4177. Re: beeswax in an oscillator compartment

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-17 19:02:07 UTC
From: averyfineman@aol.com
Message-ID: <20041217140207.06525.00000235@mb-m24.aol.com>
Source record: 21561

In article <32f4v3F3mkoe8U2@individual.net>, "zagshdjfkgl" <nospam@nospam.com>
writes:

>> There's nothing special about the wax. It was a convenience to use
>> in production, quick, easy-to-use and cheap. To do a good hold on
>> things like inductors, I would recommend the "spar varnish" kind of
>> varnish (made from pretroleum distilates, not the urethane type). One
>> example of that is McCloskey "Gym Seal" intended for hard-use
>> floor finishing and found in lumber yards and do-it-yourself stores.
>> Varnish needs to cure overnight to be effective, doesn't drop Q any
>> more than the polystyrene "Q Dope" (which will lose its holding power
>> because of moisture breaking the bond to the work), and holds on
>> infinitum (also known as at least 30 years based on my experience).
>>
>> LenAnderson@ieee.org
>
>Remember "fish-paper"? used that in a early 1980 moto radio design.
>I know the type of wax you are talking about, harder and a little darker
>than beeswax.

"Fish paper" (not made from fish) was common in E-I lamination
transformer construction as a winding insulator. Actually it IS paper
but impregnated with a polymer, good for tight wrapping of wire
layers because it does not have the "give' of many plastic film
wraps. Thin cloth impregnated with phenolic resin was sometimes
used for cheap insulation as a substitute for "fish paper" on non-
transformer structures.

If someone is intent on using any wax, then parafin wax would be
a bit better since its melting temperature is higher than ceresin
waxes. Parafin blocks can be found in larger do-it-yourself stores
such as Lowe's or Home Depot. Harder to work with than the low
temp-melting ceresin wax for potting small things.

LenAnderson@ieee.org

4178. Re: where to get burs for Dremeling PCBs?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-17 20:53:21 UTC
From: K7ITM <k7itm@aol.com>
Message-ID: <1103316801.891378.326280@f14g2000cwb.googlegroups.com>
Source record: 21562

Like Joe mentioned, dentists will often be willing to give you some old burs. I don't have many carbide ones, but I do have a whole mess of steel ones that a dentist didn't want to try to sort out after an earthquake many years ago. I might be able to send you a few. Also, I notice as I write this that Google has put some suggestions for dental bur sources in the column adjacent to this... you might try these, or a Google search for dental burs:

www.net32.com, www.dollardiamonds.net, www.hobby-store.us

Also, if you go to your dentist armed with knowledge of how much the burs cost (see net32.com, for example--looks like the best of those three sites for what you want), you might be able to get him/her to sell you some new ones at a reasonable price.

Cheers,
Tom

4179. Re: where to get burs for Dremeling PCBs?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-17 21:06:48 UTC
From: pete ke90a <pete@siliconengines-ltd.com>
Message-ID: <1103317608.157672.62090@f14g2000cwb.googlegroups.com>
Source record: 21563

K9LY wrote:
> Hello. When I make PCBs for homebrew projects, I often use a Dremel

> Moto-Tool with a dental bur for cutting the pattern into the copper
> foil. About ten years ago I bought a bunch of burs from someone at
the
> Dayton Hamvention. Now they're worn out, and I'd like to get some
more.
> Does anyone know where a hobbyist can buy these things? See photo at
> alt.binaries.pictures.radio .
>
> 73,
> Joe K9LY

Hi Joe,
Your call sign indicates that you MIGHT be in the Chicago area.
If you are, you could be in luck. I sold 300 pounds of tungsten carbide
PC board bits to American Science & Surplus a few years back. I
originally purchased them from the Inventory Disposal Store at
Rockwell-Collins, and they were pulled out of service from their board
shop.
The last thing I remember was seeing them at 50 cents each. These are
very good bits.............I only kept 1200 of them for myself.
You can reach them at (773) 763-0313.

Pete

4180. Re: WaveForm Generator

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-17 22:05:01 UTC
From: Cliff Curry <cliffcurry323@comcast.net>
Message-ID: <hKIwd.675532$mD.126614@attbi_s02>
Source record: 21564

It depends on what kind of accuracy you need.

You could do this analog wise by building a filter that has fast cutoff and linear phase in the passband, and then
applying a very short pulse to it.

A bessel filter is easy to design and has somewhat this characteristic.
Better would be a phase compensated chebeshev design, but I don't think you will find that in a table!

If you look at these filter's responses with an oscilloscope, they will look very Sinc like.

Cliff

<m.kianzad@gmail.com> wrote in message
news:1103198494.058178.30040@c13g2000cwb.googlegroups.com...
> Dear All,
> I want to synthesize a SINC wave with main lobe width = 100ns,
> Is it possible to use a LC filter response or
> a DDS or a similar approach mey be?
> Can anyone help me?
> Thanks
>

4181. Need tube info for 1P25

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-17 22:18:50 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <aom6s0pjdn2i2bhddlnom4clk281rn2h4u@4ax.com>
Source record: 21565

Any idea what this tube is used for, see
http://home.online.no/~la8ak/e81.htm

73,
Jan-Martin

J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

4182. Re: Suggestion for prescaler up to 3GHz please ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-18 03:58:53 UTC
From: "Leland C. Scott" <kc8ldo@arrl.net>
Message-ID: <cJydncAzxudvN17cRVn-sA@comcast.com>
Source record: 21566

The following chip is not recommended for new designs but if its for a home project it should be OK. See the following URL for the data sheet.

http://www.cel.com/pdf/datasheets/upb1506.pdf

There may also be newer versions available if you ask the manufacture.

--
Leland C. Scott
KC8LDO

Wireless Network
Mobile computing
on the go brought
to you by Micro$oft
"Stephane" <sre@lem.com> wrote in message
news:264c924d.0412160455.60fa4d63@posting.google.com...
> Hello,
>
> I'm looking for a prescaler reference with a ratio of 64 and 128, able
> to operate up to 3GHz.
>
> I had in mind to use the Motorola MC12079 (64/128, 2.8GHz) but it's
> discontinued. The fujitsu MB506 (64/128, 2.4GHz) is difficult to find.
>
> Have you some other part numbers to suggest ?
>
> Many thanks
>
> Stephane, F1TJJ
> stephrac74@wanadoo.fr

4183. Racal rf sensor help

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-18 15:04:29 UTC
From: Merlin&#65533; <chris@wudumwic.freeserve.NOSPAM.co.uk>
Message-ID: <cq1gs0$v33$1@newsg3.svr.pol.co.uk>
Source record: 21567

Please can anyone advise on the spec of one of these, ie power & frequency
rating,
http://www.onepic.com/4/1103382017-84-66-201-146.jpg

TIA G8PSZ

4184. Re: Need tube info for 1P25

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-18 15:25:52 UTC
From: Ken Scharf <wa2mzeNOTTHIS@bellsouth.net>
Message-ID: <vWXwd.20841$rO2.4049@bignews1.bellsouth.net>
Source record: 21568

J M Noeding wrote:
> Any idea what this tube is used for, see
> http://home.online.no/~la8ak/e81.htm
>
> 73,
> Jan-Martin
> ---
> J. M. Noeding, LA8AK, N-4623 Kristiansand
> http://home.online.no/~la8ak/c.htm

It's a 'head on' photomultiplier tube.
They were used in flying spot scanners,
and noise generators in radar jammers.

4185. Re: where to get burs for Dremeling PCBs?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-18 15:42:12 UTC
From: Joe LeKostaj <joemags@att2004global.net>
Message-ID: <joemags-D1A6CB.09421218122004@news1.prserv.net>
Source record: 21569

Thanks for all the suggestions. I'll be seeing my dentist soon, so will start by asking him about the burs.

73,
Joe K9LY

4186. Re: where to get burs for Dremeling PCBs?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-18 15:45:06 UTC
From: -XC- <nobody@home.net>
Message-ID: <Qd-dnZTT-LYczVncRVn-1A@comcast.com>
Source record: 21570

I've found the "asking the dentist for the old worn out tools etc" is a myth. I have asked and the official answer was due to the tools being used in blood, bone and possibly disease they are discarded when worn, not given away. Makes good sense to me! New industrial dental picks and bits are cheap and available all over the place.

John

"joe" <dental_dude@nospam.com> wrote in message
news:41C2FE07.44C815E4@nospam.com...
> hi joe,
>
> why not ask your dentist ? they may have a in house lab
> and may order or give you a few that are not too worn out ?
>
>
>
> K9LY wrote:
>
> > Hello. When I make PCBs for homebrew projects, I often use a Dremel
> > Moto-Tool with a dental bur for cutting the pattern into the copper
> > foil. About ten years ago I bought a bunch of burs from someone at the
> > Dayton Hamvention. Now they're worn out, and I'd like to get some more.
> > Does anyone know where a hobbyist can buy these things? See photo at
> > alt.binaries.pictures.radio .
> >
> > 73,
> > Joe K9LY
>

4187. Re: Racal rf sensor help

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-18 16:13:23 UTC
From: Dan Rae <danrae@verizonEXTRACTTHIS.net>
Message-ID: <DGYwd.189$h.152@trnddc04>
Source record: 21571

There were two versions, a "high" power and a "low" power one. Not racal
as far as I know. I used to use one 25 years ago for 2 metres 10 watts.
It's just a little coupled line with diode probe.
73
Dan ac6ao / g3ncr

Merlinï¿½ wrote:
> Please can anyone advise on the spec of one of these, ie power & frequency
> rating,
> http://www.onepic.com/4/1103382017-84-66-201-146.jpg
>
> TIA G8PSZ
>
>

4188. Re: I-Q vfo

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-18 17:08:16 UTC
From: David J Windisch <davidw@copper.net>
Message-ID: <41c4644b_3@newsfeed.slurp.net>
Source record: 21572

I mis-typed IYDKWIM -- SAT ;o)

73, Merry Christmas, Happy New Year to all.

Dave, N3HE

"Craig Johnson" <cbjohns@cbjohns.com> wrote in message
news:cpsqqc$2n4e$1@si05.rsvl.unisys.com...
> David,
>
>> Does anyone have an I-Q vfo (google it IYDKWTI), kit or built, for sale?
>> TIA & 73, Dave, N3HE
>
> Sorry we ran out of them at AmQRP. The sales were brisk while they
> lasted.
> We (George Heron and I) are currently discussing the possibility of
> another production run.
> Let George (AmQRP) know if you are interested.
>
> If anyone is wondering what we are talking about, you can see info and
> join the discussion in my
> YAHOO group - DDS-VFO. I am the moderator and "doorkeeper" just to
> keep out spam.
>
> Very briefly, it's a 0-30 MHz VFO that I designed. It uses a couple of
> PIC microcontrollers to run
> an AD9854 DDS. This DDS part provides TWO outputs - I (In-phase) and Q
> (Quadrature - 90 degrees
> shifted from the I) which allows many interesting modulation/demodulation
> possibilities.
>
> I had to Google IYDKWTI and I do know what it is !. ;-)
>
> 73,
> -Craig, AA&#65533;ZZ
>
>

4189. For sale or for trade - 440.600MHz

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-19 09:26:24 UTC
From: "Mike WA6ILQ"
Message-ID: <kghas0h8ci719l2ajbi31bn5rsoi4nmsu4@4ax.com>
Source record: 21573
Cross-posted to:
rec.radio.swap,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.digital.misc,rec.radio.amateur.homebrew

For sale or for trade.

If you know someone with a repeater
on 440.6 MHz or 445.6 MHz please
forward this to him.

Due to a repeater changing frequency
I have a spare Micor RX element (KXN1024)
set up on 440.600mhz. It was rebuilt and
temp-comp'd by International Crystal.

Mike WA6ILQ (callsign)@arrl.net

4190. Source of MRF286 FETs?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-19 15:28:46 UTC
From: "Odd Erling N. Eriksen" <odderi@pvv.org>
Message-ID: <cq46ne$c3n$1@orkan.itea.ntnu.no>
Source record: 21574

Hi,

The subject line says it all, really. Does anyone know of a distributor
who will sell MRF286 in small quantities at a decent price?

--
73 de LB1LF

Odd Erling, ARK

Famous last words #8: I guess there's only one way to find out...

4191. Re: where to get burs for Dremeling PCBs?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-19 16:52:20 UTC
From: clifto <clifto@clifto.com>
Message-ID: <47og92-kjp.ln1@remote.clifto.com>
Source record: 21575

-XC- wrote:
> I've found the "asking the dentist for the old worn out tools etc" is a
> myth. I have asked and the official answer was due to the tools being used
> in blood, bone and possibly disease they are discarded when worn, not given
> away. Makes good sense to me! New industrial dental picks and bits are cheap
> and available all over the place.

My dentist (and my previous dentist) autoclave them and give them out
to an eager waiting list of people.

--
The state religion of the USA is atheism, as established by the courts.

4192. Unknown Type of Poss Amp

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-20 02:48:04 UTC
From: Matthew Wade <mwade6@nc.rr.com>
Message-ID: <E3rxd.1144$i11.270224@twister.southeast.rr.com>
Source record: 21576

I happened on a pair of probable amplifiers, I was wondering if anyone could tell me more about them?

VICOR Company---Manufacturer
FlatPAC---???Type of Amp???
600 Watt
AC-DC Switchers
MOdel No: VI-NUL-IM
Voltage: 100-120/200-240V
Current: 13.5/6.8 A
Frequency: 47-440HZ
Output 1: 28V 21.5 Amperes / 600 Watts

Several US Patents

4193. Re: Unknown Type of Poss Amp

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-20 03:18:49 UTC
From: Bruce Lane <SpammersAreVermin@dev.null>
Message-ID: <MPG.1c2fe47069d70a16989680@192.168.42.131>
Source record: 21579

In article <E3rxd.1144$i11.270224@twister.southeast.rr.com>, mwade6
@nc.rr.com says...

> I happened on a pair of probable amplifiers, I was wondering if anyone could
> tell me more about them?
>
> VICOR Company---Manufacturer
> FlatPAC---???Type of Amp???
> 600 Watt
> AC-DC Switchers
> MOdel No: VI-NUL-IM
> Voltage: 100-120/200-240V
> Current: 13.5/6.8 A
> Frequency: 47-440HZ
> Output 1: 28V 21.5 Amperes / 600 Watts
>
> Several US Patents

I have no idea why you think these would be amplifiers. It should
be very obvious that they're AC/DC power supplies. Specifically,
standard AC line voltage in, and 28V at 21.5 amps max output.

That would be a wonderful brick for powering military surplus
electronics, as long as all they need is 28V (some required 115VAC at
400Hz as well, multiphase in some cases).

If you're not finding them useful, I would either take them to a
hamfest to sell, or put them up on Ebay.

Keep the peace(es).

--
Dr. Anton T. Squeegee, Director, Dutch Surrealist Plumbing Institute.
(Known to some as Bruce Lane, ARS KC7GR,
kyrrin (a/t) bluefeathertech[d=o=t]calm -- www.bluefeathertech.com
"If Salvador Dali had owned a computer, would it have been equipped
with surreal ports?"

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http://www.newsfeed.com The #1 Newsgroup Service in the World!
-----= Over 100,000 Newsgroups - Unlimited Fast Downloads - 19 Servers =-----

4194. Re: Unknown Type of Poss Amp

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-20 04:52:49 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10scml5d9s64b3@corp.supernews.com>
Source record: 21577

Matthew Wade wrote:
> I happened on a pair of probable amplifiers, I was wondering if
> anyone could tell me more about them?

Sounds to me like a power supply, AC input, DC output, switching type.
Not an amplifier.

>
> VICOR Company---Manufacturer FlatPAC---???Type of Amp??? 600 Watt
> AC-DC Switchers MOdel No: VI-NUL-IM

Power supply input voltage/current/frequency:

> Voltage: 100-120/200-240V
> Current: 13.5/6.8 A
> Frequency: 47-440HZ

Power supply output voltage (DC)/current:

> Output 1: 28V 21.5 Amperes / 600 Watts

Roy Lewallen, W7EL

4195. Re: where to get burs for Dremeling PCBs?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-20 12:00:31 UTC
From: "Gary S." <Idontwantspam@net>
Message-ID: <bgfds096l75ar3uaek0od88293i2g62188@4ax.com>
Source record: 21578

On Sun, 19 Dec 2004 10:52:20 -0600, clifto <clifto@clifto.com> wrote:

>-XC- wrote:
>> I've found the "asking the dentist for the old worn out tools etc" is a
>> myth. I have asked and the official answer was due to the tools being used
>> in blood, bone and possibly disease they are discarded when worn, not given
>> away. Makes good sense to me! New industrial dental picks and bits are cheap
>> and available all over the place.
>
>My dentist (and my previous dentist) autoclave them and give them out
>to an eager waiting list of people.

Yes, this is what I have seen.

If there were such a risk of disease transmission, then they could
never use the tools on a second patient.

Autoclaving professionally done removes the risk of disease
transmission. It is just a matter of doing it before giving them away.

Happy trails,
Gary (net.yogi.bear)
---
at the 51st percentile of ursine intelligence

Gary D. Schwartz, Needham, MA, USA
Please reply to: garyDOTschwartzATpoboxDOTcom

4196. Re: Sirius radio FM out..

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-21 03:20:02 UTC
From: Terry <tsanford@nf.sympatico.ca>
Message-ID: <bDMxd.8106$Z%3.387153@news20.bellglobal.com>
Source record: 21580

Make the Sirius output powerful enough you could have your own mobile transmitting station as you drive along! :-)

4197. Tektronix 465 Scope

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-21 15:35:06 UTC
From: Dick <dick@langwang.demon.co.uk>
Message-ID: <qEICpBDqKEyBFwrC@langwang.demon.co.uk>
Source record: 21581
Cross-posted to: sci.electronics.design,rec.radio.amateur.homebrew

My Tek 465 scope has developed a minor but annoying fault in its triggering circuitry but before diving into the guts of an old & faithful friend I would appreciate it if anyone who has experienced similar symptoms to those below could give me their thoughts on possible causes & (more importantly) how they fixed their particular version of the problem.

1) My scope just won't trigger in the A Normal mode although a stable trace obtained in A Auto will remain displayed (and stable) in A Normal until I touch either A Trigger slope or polarity controls.

2) I can stabilise a trace using the A Auto mode but only by adjusting the A Trigger Hold-off control rather than the A Trigger slope/polarity I would normally expect.

3) Everything appears to be triggering correctly when I use the B Trigger.

4) All other scope functions appear to be OK.

I've checked these symptoms and they seem to be present what ever type of signal I'm inputting - sine/square, 1kHz - 1MHz, Ch1 or Ch2.

I've got a set of battered circuit diagrams & layout drawings so should at least be able to follow up any ideas you experts might be able to pass my way.

In the mean time many thanks for at least reading this posting and Merry Xmas & Happy New Year to everyone fra' Auld Reekie
--
Dick
GM0MNL

4198. Re: Tektronix 465 Scope

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-21 16:04:17 UTC
From: "Nicholas O. Lindan" <see@sig.com>
Message-ID: <5QXxd.7855$yK.3612@newsread3.news.atl.earthlink.net>
Source record: 21582
Cross-posted to: sci.electronics.design,rec.radio.amateur.homebrew

"Dick" <dick@langwang.demon.co.uk> wrote
> My Tek 465 scope has developed a minor but annoying fault in its
> triggering circuitry

It sounds (reads) like a bad connection.

By Ole Occam's razor, and a description of the problem - 'it works
till I touch the knob' - my first guess is a dirty and/or worn
synch selection switch or trigger level pot. The pot wouldn't
happen to have one section for Ch. A and one for B and get
bypassed in Auto, would it?

If it were mine, I would first try a spritz of contact cleaner into
the switch via the front panel slot (IIR465C). All contact
cleaners are the same - mineral oil and alcohol - so the cheapest
Radio Shack stuff works as well as anything. WD40 also works well.

Getting to the switch or pot by disassembly I would save for last.
There is an old adage "Fix anything long enough and you will _really_
break it." And I wish I would remember that adage in time.

Other likely causes are bad connector, crimp or solder joint. After
that electrolytic caps.

--
Nicholas O. Lindan, Cleveland, Ohio
Consulting Engineer: Electronics; Informatics; Photonics.
Remove spaces etc. to reply: n o lindan at net com dot com
psst.. want to buy an f-stop timer? nolindan.com/da/fstop/

OP:

"Dick" <dick@langwang.demon.co.uk> wrote in message
news:qEICpBDqKEyBFwrC@langwang.demon.co.uk...
> My Tek 465 scope has developed a minor but annoying fault in its
> triggering circuitry but before diving into the guts of an old &
> faithful friend I would appreciate it if anyone who has experienced
> similar symptoms to those below could give me their thoughts on possible
> causes & (more importantly) how they fixed their particular version of
> the problem.
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> trace obtained in A Auto will remain displayed (and stable) in A Normal
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> 2) I can stabilise a trace using the A Auto mode but only by adjusting

> the A Trigger Hold-off control rather than the A Trigger slope/polarity
> I would normally expect.
>
> 3) Everything appears to be triggering correctly when I use the B
> Trigger.
>
> 4) All other scope functions appear to be OK.
>
> I've checked these symptoms and they seem to be present what
> ever type of signal I'm inputting - sine/square, 1kHz - 1MHz, Ch1 or
> Ch2.
>
> I've got a set of battered circuit diagrams & layout drawings so
> should at least be able to follow up any ideas you experts might be able
> to pass my way.
>
> In the mean time many thanks for at least reading this posting
> and Merry Xmas & Happy New Year to everyone fra' Auld Reekie
> --
> Dick
> GM0MNL

4199. Re: Tektronix 465 Scope

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-21 16:24:36 UTC
From: Don Lancaster <don@tinaja.com>
Message-ID: <41C84E44.C75885D7@tinaja.com>
Source record: 21583
Cross-posted to: sci.electronics.design,rec.radio.amateur.homebrew

Dick wrote:
>
> My Tek 465 scope has developed a minor but annoying fault in its
> triggering circuitry but before diving into the guts of an old &
> faithful friend I would appreciate it if anyone who has experienced
> similar symptoms to those below could give me their thoughts on possible
> causes & (more importantly) how they fixed their particular version of
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> the A Trigger Hold-off control rather than the A Trigger slope/polarity
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> Trigger.
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>
> I've checked these symptoms and they seem to be present what
> ever type of signal I'm inputting - sine/square, 1kHz - 1MHz, Ch1 or
> Ch2.
>
> I've got a set of battered circuit diagrams & layout drawings so
> should at least be able to follow up any ideas you experts might be able
> to pass my way.
>
> In the mean time many thanks for at least reading this posting
> and Merry Xmas & Happy New Year to everyone fra' Auld Reekie
> --
> Dick
> GM0MNL

Clean the switches with Radio Shack tuner cleaner.

--
Many thanks,

Don Lancaster
Synergetics 3860 West First Street Box 809 Thatcher, AZ 85552
voice: (928)428-4073 email: don@tinaja.com

Please visit my GURU's LAIR web site at http://www.tinaja.com

4200. Re: Tektronix 465 Scope

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-21 16:40:32 UTC
From: Leon Heller <leon_heller@hotmail.com>
Message-ID: <41c85200$0$16573$cc9e4d1f@news-text.dial.pipex.com>
Source record: 21584
Cross-posted to: sci.electronics.design,rec.radio.amateur.homebrew

"Dick" <dick@langwang.demon.co.uk> wrote in message
news:qEICpBDqKEyBFwrC@langwang.demon.co.uk...
> My Tek 465 scope has developed a minor but annoying fault in its
> triggering circuitry but before diving into the guts of an old &
> faithful friend I would appreciate it if anyone who has experienced
> similar symptoms to those below could give me their thoughts on possible
> causes & (more importantly) how they fixed their particular version of
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> I've checked these symptoms and they seem to be present what
> ever type of signal I'm inputting - sine/square, 1kHz - 1MHz, Ch1 or
> Ch2.
>
> I've got a set of battered circuit diagrams & layout drawings so
> should at least be able to follow up any ideas you experts might be able
> to pass my way.

You need the Tekscopes group: TekScopes@yahoogroups.com

Leon

4201. Re: Tektronix 465 Scope

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-21 17:09:06 UTC
From: Frank Bemelman <f.bemelmanq@xs4all.invalid.nl>
Message-ID: <41c85860$0$1150$e4fe514c@news.xs4all.nl>
Source record: 21585
Cross-posted to: sci.electronics.design,rec.radio.amateur.homebrew

"Nicholas O. Lindan" <see@sig.com> schreef in bericht
news:5QXxd.7855$yK.3612@newsread3.news.atl.earthlink.net...

[snip]

> Getting to the switch or pot by disassembly I would save for last.
> There is an old adage "Fix anything long enough and you will _really_
> break it." And I wish I would remember that adage in time.

How true. Today I fixed something... all the way to the rubbish bin ;)

--
Thanks, Frank.
(remove 'q' and 'invalid' when replying by email)

4202. 7 BANDER ANNTENA XP707 FROM SOMMER FOR SALE !

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-21 17:19:22 UTC
From: Jos&#65533; Lopes <fartolopes@mail.telepac.pt>
Message-ID: <41c85b18$0$26934$a729d347@news.telepac.pt>
Source record: 21586

I am interested in sailing my hf antenna above mentioned that is in very
good conditions.
Reason: need to renew and create a new set up of antennas.
Antenna: Sommer (DJ2UT Beam)
Model: XP 707
Bands: 10, 12, 15, 17, 20, 30 and 40 meters
Balun: The balun furnished with the Sommer antennas is a low-loss
air core type using RG142 (BU) Teflon cable. The balun will handle 2.9 kW
continuous output at 30 MHz with a loss of only 0.05 dB.
This antenna it still on my tower and working very well.
For price please send one email to:
fartolopes@mail.telepac.pt

The transports costs will be at the resposability of the buyer.
If you are interestes we can sed some actual pictures, and for all the
informations concerning gain and front/back, please go to the oficial site:

http://www.sommerantennas.com/beaminfo.html

Best 73, Lopes - CT1CJJ

4203. Re: Tektronix 465 Scope

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-21 19:13:22 UTC
From: Highland Ham <abcgm0csz.kn6whxyz@abcntlworldxyz.com>
Message-ID: <mB_xd.352$nE.14@newsfe3-win.ntli.net>
Source record: 21587
Cross-posted to: sci.electronics.design,rec.radio.amateur.homebrew

> If it were mine, I would first try a spritz of contact cleaner into
> the switch via the front panel slot (IIR465C). All contact
> cleaners are the same - mineral oil and alcohol - so the cheapest
> Radio Shack stuff works as well as anything. WD40 also works well.
==========
On various occsasions I have been told that WD40 is NOT the right cleaning agent for electrical systems involving plastic insulation re wiring, etc. I always use (non chlorinated) contact cleaner as available from Rat Shack and similar stores.
Here in the UK I use contact cleaner supplied by Maplin.

Frank GM0CSZ / KN6WH

4204. Re: Tektronix 465 Scope

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-21 21:03:34 UTC
From: Joseph Legris <jalegris@xympatico.ca>
Message-ID: <xc0yd.9921$Z%3.496941@news20.bellglobal.com>
Source record: 21589
Cross-posted to: sci.electronics.design,rec.radio.amateur.homebrew

Dick wrote:
> My Tek 465 scope has developed a minor but annoying fault in its
> triggering circuitry but before diving into the guts of an old &
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> 4) All other scope functions appear to be OK.
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> I've checked these symptoms and they seem to be present what
> ever type of signal I'm inputting - sine/square, 1kHz - 1MHz, Ch1 or
> Ch2.
>
> I've got a set of battered circuit diagrams & layout drawings so
> should at least be able to follow up any ideas you experts might be able
> to pass my way.
>
> In the mean time many thanks for at least reading this posting
> and Merry Xmas & Happy New Year to everyone fra' Auld Reekie

Have you cleaned the controls and switches? Electromechanical parts are
the weakest link.

--
Joe Legris

4205. Re: Tektronix 465 Scope

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-21 22:26:21 UTC
From: dplatt@radagast.org
Message-ID: <10sh8odbj177b1b@corp.supernews.com>
Source record: 21590
Cross-posted to: sci.electronics.design,rec.radio.amateur.homebrew

In article <5QXxd.7855$yK.3612@newsread3.news.atl.earthlink.net>,
Nicholas O. Lindan <see@sig.com> wrote:

>
>By Ole Occam's razor, and a description of the problem - 'it works
>till I touch the knob' - my first guess is a dirty and/or worn
>synch selection switch or trigger level pot. The pot wouldn't
>happen to have one section for Ch. A and one for B and get
>bypassed in Auto, would it?
>
>If it were mine, I would first try a spritz of contact cleaner into
>the switch via the front panel slot (IIR465C). All contact
>cleaners are the same - mineral oil and alcohol - so the cheapest
>Radio Shack stuff works as well as anything. WD40 also works well.

Ugh. and Ugh again.

I'd raise three cautions about this advice:

[1] My recollection is that Tek specifically warns against using
most contact cleaners on, or around, certain of the internal
controls (e.g. the attenuator switches). These switches are
apparently quite sensitive to contamination, as they deal with
high-impedance signals. Spraying an oil-and-alcohol contact
cleaner anywhere in their area might very well contaminate them.

IIRC, Tek's recommendation is to use pure isopropyl alcohol, and
a small clean brush, for cleaning contacts.

[2] Not all contact cleaners are the same. Many used for sensitive
equipment are "zero-residue" types - they have a cleaning solvent
and propellant, but do not contain any sort of lubricant, and are
intended to leave nothing behind on the contacts. Even among the
contact treatments which do contain a lubricant of some sort, there
is wide variation in the type of solvent used (some use alcohol,
some use a hydrocarbon or chlorinated/fluorinated hydrocarbon)
and the lubricant used (some use mineral oil, some a polyphenyl
ether, others something else entirely). It pays to use the right
combination for the job.

[3] I would not use WD-40 as a contact cleaner, on anything less robust
than an electric motor. It's not formulated for that purpose
(in fact, it's not really formulated as a long-term lubricant!)
and it is notorious for getting gummy and attracting dust over
the long run.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

4206. Re: Tektronix 465 Scope

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-21 23:05:14 UTC
From: carel harmsen <carelharmsen@hetnet.nl>
Message-ID: <cqa2pabqr1@reader08.wxs.nl>
Source record: 21588
Cross-posted to: sci.electronics.design,rec.radio.amateur.homebrew

"Dick" <dick@langwang.demon.co.uk> schreef in bericht
news:qEICpBDqKEyBFwrC@langwang.demon.co.uk...
> My Tek 465 scope has developed a minor but annoying fault in its
> triggering circuitry but before diving into the guts of an old &
> faithful friend I would appreciate it if anyone who has experienced
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> Ch2.
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> I've got a set of battered circuit diagrams & layout drawings so
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> to pass my way.
>
> In the mean time many thanks for at least reading this posting
> and Merry Xmas & Happy New Year to everyone fra' Auld Reekie
> --
> Dick
> GM0MNL
At the moment I'm having a fight with my Dynatek. So I looked up this
section in the schematics. Triggering looks simple. The trigger signal is
enabled/disabled by the outputs of a flipflop (LS74 here) which is
set/cleared by the channel selector switch. Here the switch is floating to
select Channel 2. So a bad contact will select channel 2. It looks almost
too simple, but an attack with contact cleaner may cure your old friend.

Carel

4207. 6m amp design?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-21 23:07:29 UTC
From: Ken Bessler <kg0wx@NOSPAMyahoo.com>
Message-ID: <P02yd.3$ph.0@okepread01>
Source record: 21591

I'd like to build a 6m SSB amp that uses about 10-14
watts of drive and delivers at least 100w.

Anyone know of plans online for one?

Ken KG0WX

4208. Re: Tektronix 465 Scope

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-21 23:38:03 UTC
From: "Dr. Anton T. Squeegee" <SpammersAreVermin@dev.null>
Message-ID: <MPG.1c3253b3cb4ee461989687@192.168.42.131>
Source record: 21592
Cross-posted to: sci.electronics.design,rec.radio.amateur.homebrew

In article <5QXxd.7855$yK.3612@newsread3.news.atl.earthlink.net>,
see@sig.com says...

> "Dick" <dick@langwang.demon.co.uk> wrote
> > My Tek 465 scope has developed a minor but annoying fault in its
> > triggering circuitry
>
> It sounds (reads) like a bad connection.
>
> By Ole Occam's razor, and a description of the problem - 'it works
> till I touch the knob' - my first guess is a dirty and/or worn
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> happen to have one section for Ch. A and one for B and get
> bypassed in Auto, would it?
>
> If it were mine, I would first try a spritz of contact cleaner into
> the switch via the front panel slot (IIR465C). All contact
> cleaners are the same - mineral oil and alcohol - so the cheapest
> Radio Shack stuff works as well as anything. WD40 also works well.

NONONONONONONO!!!! DEFINITELY NOT!!!!!

All contact cleaners ARE NOT the same! Never have been, never will
be, and the proper ones for degreasing electronic equipment do NOT
contain any mineral oil!

I speak from knowledge gained over 25+ years of pro experience in
the fields of radio, electronics, and computers. NEVER, under ANY
conditions, use WD40 inside a Tektronix 'scope or any other electronic
device! It leaves an oily residue which will actually ATTRACT dirt and
gunge, and make the problem worse.

If you value your test equipment, don't cut corners on the stuff
you use to maintain it. Check the Tektronix service manual for the
recommended cleaner formulation, and get it from a quality electronics
supply place (Radio Shack does NOT come under that category as far as
I'm concerned).

I can tell you from personal experience that CRC 'CO Contact
Cleaner' works very well, and it is plastic-safe so you won't damage the
innards of the vertical attenuator assemblies.

It may cost a little more up front, or be a little harder to find,
but you won't be risking the long-term life of said equipment.

Happy hunting.

--
Dr. Anton T. Squeegee, Director, Dutch Surrealist Plumbing Institute.
(Known to some as Bruce Lane, ARS KC7GR,
kyrrin (a/t) bluefeathertech[d=o=t]calm -- www.bluefeathertech.com
"If Salvador Dali had owned a computer, would it have been equipped
with surreal ports?"

----------== Posted via Newsfeed.Com - Uncensored Usenet News ==----------
http://www.newsfeed.com The #1 Newsgroup Service in the World!
-----= Over 100,000 Newsgroups - Unlimited Fast Downloads - 19 Servers =-----

4209. Re: 6m amp design?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-21 23:55:20 UTC
From: Highland Ham <abcgm0csz.kn6whxyz@abcntlworldxyz.com>
Message-ID: <IJ2yd.1491$Vt.1124@newsfe2-gui.ntli.net>
Source record: 21593

"Ken Bessler" <kg0wx@NOSPAMyahoo.com> wrote in message
news:P02yd.3$ph.0@okepread01...
> I'd like to build a 6m SSB amp that uses about 10-14
> watts of drive and delivers at least 100w.
>
> Anyone know of plans online for one?
==========
Suggest you have a look at an article in QST-October 1990 ,pages 18 - 21
Title : " A compact brick for 6 meters"
Author : Pat Bunn , N4LTA

Gain : 10 dB Input : 10 Watts A single RF power transistor is
used : MRF492 (NPN) (perhaps a bit dated ,but readily replaceable by a
current type.

Power supply for the unit : 13.8 V-DC Unit is shown as sitting in a
diecast enclosure with a large heatsink.

Good Luck

Frank GM0CSZ / KN6WH

4210. Re: Tektronix 465 Scope

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-22 00:32:31 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10shg54pvuhkj4d@corp.supernews.com>
Source record: 21594
Cross-posted to: sci.electronics.design,rec.radio.amateur.homebrew

A number of the switches on the 465 use PC board pads as contacts. They have heavy gold plating, but eventually the gold wears off. When that happens, the switch is dead and as far as I know can't be repaired. You might be able to squeeze a little more life out of it by cleaning, but in any case I'd be very careful not to use a cleaner with any abrasive qualities. If cleaning doesn't cure the problem, worn pads might be the cause.

But by all means check with the 'scope newsgroup. I'm sure you'll find folks who have had a lot of experience with the 465, and some might even know of some kind of fix or replacement for worn switch contact pads.

Roy Lewallen, W7EL

4211. Re: 6m amp design?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-22 01:20:24 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <voihs0leo3p63d069mjjjm0vir1014ha0l@4ax.com>
Source record: 21595

On Tue, 21 Dec 2004 23:55:20 GMT, "Highland Ham"
<abcgm0csz.kn6whxyz@abcntlworldxyz.com> wrote:

>
>"Ken Bessler" <kg0wx@NOSPAMyahoo.com> wrote in message
>news:P02yd.3$ph.0@okepread01...
>> I'd like to build a 6m SSB amp that uses about 10-14
>> watts of drive and delivers at least 100w.
>>
>> Anyone know of plans online for one?
>======================
>Suggest you have a look at an article in QST-October 1990 ,pages 18 - 21
>Title : " A compact brick for 6 meters"
>Author : Pat Bunn , N4LTA
>
>Gain : 10 dB Input : 10 Watts A single RF power transistor is
>used : MRF492 (NPN) (perhaps a bit dated ,but readily replaceable by a
>current type.
>
>Power supply for the unit : 13.8 V-DC Unit is shown as sitting in a
>diecast enclosure with a large heatsink.
>
>Good Luck
>
>Frank GM0CSZ / KN6WH
>
it was used in a construction (QST) 20 years ago, and the writer
mentioned it was somewhat dated then, not to easy to get gain. the
only reason to use it was the price, so I wonder if it is difficult to
find a better device now?

My first 6m amplifier from '85 used BLY94 because it was free, but it
cannot give more than 60-70W

73
jm

J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

4212. Re: Tektronix 465 Scope

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-22 02:03:38 UTC
From: "Jim Yanik"
Message-ID: <Xns95C6D5E75423Djyanikkuanet@129.250.170.85>
Source record: 21597
Cross-posted to: sci.electronics.design,rec.radio.amateur.homebrew

"Highland Ham" <abcgm0csz.kn6whxyz@abcntlworldxyz.com> wrote in
news:mB_xd.352$nE.14@newsfe3-win.ntli.net:

>
>> If it were mine, I would first try a spritz of contact cleaner into
>> the switch via the front panel slot (IIR465C). All contact
>> cleaners are the same - mineral oil and alcohol - so the cheapest
>> Radio Shack stuff works as well as anything. WD40 also works well.
>==============================
> On various occsasions I have been told that WD40 is NOT the right
> cleaning agent for electrical systems involving plastic insulation re
> wiring, etc. I always use (non chlorinated) contact cleaner as
> available from Rat Shack and similar stores.
> Here in the UK I use contact cleaner supplied by Maplin.
>
> Frank GM0CSZ / KN6WH
>
>
>

On TEK LF or HF cam style contact switches,do NOT use mineral oil-based
cleaner/lubes.Take some 99% isopropyl alco,wet a narrow paper strip,and
slide under the closed contact,and move back and forth.These cam-style
switches have VERY low wiping force,and any oil,grease,or film will cause
intermittents or opens.

I suspect a calibration may improve his triggering,too.

--
Jim Yanik
jyanik-at-kua.net

4213. Re: Tektronix 465 Scope

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-22 02:04:59 UTC
From: "Jim Yanik"
Message-ID: <Xns95C6D62178FA5jyanikkuanet@129.250.170.85>
Source record: 21596
Cross-posted to: sci.electronics.design,rec.radio.amateur.homebrew

Don Lancaster <don@tinaja.com> wrote in news:41C84E44.C75885D7@tinaja.com:

>
> Clean the switches with Radio Shack tuner cleaner.
>

No.Use 99% isopropyl alcohol.

--
Jim Yanik
jyanik-at-kua.net

4214. Re: 6m amp design?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-22 02:38:16 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <s65yd.12203$KO5.5911@clgrps13>
Source record: 21498

Check out some of the tube beauties through Google :-)

--
Gregg t3h g33k
"Ratings are for transistors....tubes have guidelines"
http://geek.scorpiorising.ca

4215. Re: Tektronix 465 Scope

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-22 06:50:15 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <MPG.1c32b900236c823e98975f@news-central.giganews.com>
Source record: 21499
Cross-posted to: sci.electronics.design,rec.radio.amateur.homebrew

In article <Xns95C6D62178FA5jyanikkuanet@129.250.170.85>,
jyanik@abuse.gov. says...
> Don Lancaster <don@tinaja.com> wrote in news:41C84E44.C75885D7@tinaja.com:
>
>
>
> >
> > Clean the switches with Radio Shack tuner cleaner.
> >
>
> No.Use 99% isopropyl alcohol.
>

You know, it's funny how often these debates flare up over a subject as mundane as contact cleaner. "My tuner cleaner is better than your tuner cleaner. Your tuner cleaner should be used only in Ukrainian opposition candidates' minestrone. My tuner cleaner costs more than HP printer ink. If you spray your tuner cleaner on a Tektronix 465, it will trigger a resonance cascade and gate in alien overlords from the planet Xen." Yadda, yadda, yadda.

Despite all the gurus out there forking the evil eye at WD-40, I sure seem to own a lot of stuff that still works fine after being sprayed with WD-40 over the years (decades, in some cases). Yeah, I know. "Data: n, plural of 'anecdote'."

Some of these gurus are admittedly respected veterans of companies such as Tektronix, with whom mere mortals are loath to argue. All I can say is, those switches must not have been of the greatest quality in the first place, or the gurus wouldn't have to spend so much of their time on Usenet warning people against hosing them down with WD-40.

Just sayin', is all. No disrespect intended. :)

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

4216. Re: Tektronix 465 Scope

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-22 11:07:16 UTC
From: Frank Bemelman <f.bemelmanq@xs4all.invalid.nl>
Message-ID: <41c95516$0$148$e4fe514c@news.xs4all.nl>
Source record: 21500
Cross-posted to: sci.electronics.design,rec.radio.amateur.homebrew

"John Miles" <jmiles@pop.removethistomailme.net> schreef in bericht
news:MPG.1c32b900236c823e98975f@news-central.giganews.com...

[snip]

> Some of these gurus are admittedly respected veterans of companies such
> as Tektronix, with whom mere mortals are loath to argue. All I can say
> is, those switches must not have been of the greatest quality in the
> first place, or the gurus wouldn't have to spend so much of their time
> on Usenet warning people against hosing them down with WD-40.

LOL. Well, some switches on oscilloscopes are very fragile with many,
many contacts, and rather low contact pressure. Sometimes hermetically
sealed too, so you can even use a spray can of Spam or shaving foam and
it won't hurt a bit ;)

--
Thanks, Frank.
(remove 'q' and 'invalid' when replying by email)

4217. Re: Tektronix 465 Scope

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-22 13:15:23 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10sisrc74c0p419@corp.supernews.com>
Source record: 21501
Cross-posted to: sci.electronics.design,rec.radio.amateur.homebrew

The discussion about contact cleaner isn't altogether mundane.

I worked at Tek for many years, although I'm certainly not a guru when it comes to oscilloscope maintenance. But I do recall one experience with cleaning solvents and board-mounted switches.

Before introducing a new instrument, we went through a lengthy process of building and testing prototypes, which I described some time ago in this newsgroup. In one group, it was our practice to borrow some assemblers from production to build the prototypes. One afternoon I was looking at some units they had built, after they had left for the day, and saw that the plastic of some switch bodies was very badly crazed -- they were covered with tiny cracks. Some experiments with bottles of solvent we found in some of the assemblers' work areas pinned it down to one particular liquid. The problem was one of the ingredients, which was a relatively common solvent of the time. Unfortunately, I don't recall which one -- it was something pretty mild as solvents go, like toluene or Freon, not a relatively strong solvent like acetone, which we all knew better than to use. We found out that the solvent had been banned from production, but the assemblers kept a supply out of sight because it was really good at removing flux.

The lesson is that even some normally pretty innocent solvents can destroy some plastics. Other components can also be ruined by various solvents, so that's another reason to use some caution. As just one example, it was found that Freon and its relatives would migrate up the leads and into even pretty well sealed radial leaded aluminum electrolytic capacitors, corroding the insides and causing premature failure. This was solved by improving the end seals, but only after a lot of the older type reached the field, some on boards having been washed with Freon. Of course, Freon is no longer used, but there are a host of other potential problems. It's ultimately up to you to decide whether you want to experiment with your scope.

As for WD-40, I love the stuff and use it on all kinds of switches and electrical components. But I mentioned a short while ago that the cam switches in the 465 and some other scopes use PC board pads for contacts, and when the pad's gold plating is gone, the switch -- and the scope -- is dead. So it doesn't seem like a good thing to me to use a cleaner on those that'll leave a film which can collect dust or anything abrasive.

I don't agree that a switch's ability to withstand WD-40 or any other particular chemical is an indicator of its quality. But we all have our own criteria we use to judge.

Roy Lewallen, W7EL

John Miles wrote:
>
> You know, it's funny how often these debates flare up over a subject as
> mundane as contact cleaner. "My tuner cleaner is better than your tuner
> cleaner. Your tuner cleaner should be used only in Ukrainian opposition
> candidates' minestrone. My tuner cleaner costs more than HP printer
> ink. If you spray your tuner cleaner on a Tektronix 465, it will
> trigger a resonance cascade and gate in alien overlords from the planet
> Xen." Yadda, yadda, yadda.
>
> Despite all the gurus out there forking the evil eye at WD-40, I sure
> seem to own a lot of stuff that still works fine after being sprayed
> with WD-40 over the years (decades, in some cases). Yeah, I know.
> "Data: n, plural of 'anecdote'."
>
> Some of these gurus are admittedly respected veterans of companies such
> as Tektronix, with whom mere mortals are loath to argue. All I can say
> is, those switches must not have been of the greatest quality in the
> first place, or the gurus wouldn't have to spend so much of their time
> on Usenet warning people against hosing them down with WD-40.
>
> Just sayin', is all. No disrespect intended. :)
>
> -- jm
>
> --
> http://www.qsl.net/ke5fx
> Note: My E-mail address has been altered to avoid spam
> --

4218. Making a rotor.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-22 14:02:41 UTC
From: stryped@hotmail.com
Message-ID: <1103724160.992087.157830@z14g2000cwz.googlegroups.com>
Source record: 21502

I am a under funded newbie ham. I am wanting to set up a base station at home. Can I make my own rotor cheaply? Maybe using a dc motor or something? How would I go about doing it? I have a catalog to surplus center that has many in it.

4219. Re: Making a rotor.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-22 14:39:45 UTC
From: AB2RC <AB2RC@localhost.localdomain>
Message-ID: <slrncsj286.vp7.AB2RC@localhost.localdomain>
Source record: 21503

On 2004-12-22, stryped@hotmail.com <stryped@hotmail.com> wrote:
> I am a under funded newbie ham. I am wanting to set up a base station
> at home. Can I make my own rotor cheaply? Maybe using a dc motor or
> something? How would I go about doing it? I have a catalog to surplus
> center that has many in it.

Making your own rotator system is probably more trouble than it is worth.
For smaller antennas you could always use an "Armstrong Rotator" -- in fact,
the more you use one of these simple rotators, the larger the antenna array
you will be able to move.

--
Alex / AB2RC
Linux is user friendly, however it is not idiot friendly

4220. Re: 6m amp design?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-22 14:59:07 UTC
From: Galen Watts <gwatts@nrao.edu>
Message-ID: <41C98BBA.2000402@nrao.edu>
Source record: 21504

Ken Bessler wrote:
> I'd like to build a 6m SSB amp that uses about 10-14
> watts of drive and delivers at least 100w.
>
> Anyone know of plans online for one?
>
> Ken KG0WX

I went this route a few years back, built a push-pull MRF476(?) with bias for SSB, and after messing around with it for almost a year rewinding transformers and playing with bias and tank caps trying to get more than 100 watts or so in RF instead of heat I wish I'd just bought a Mirage or TE and started my current project sooner, building a 6m/2m amp with a GS35B,

http://www.nd2x.net/yu1aw-6n2.html
on
http://www.nd2x.net/base-1.html

If you really want to build in addition to articles there's
http://www.communication-concepts.com/
with stuff like
http://www.communication-concepts.com/ar313.htm

My advice:
I think 100w+/- solid state amps are cheap enough to buy used and not build. If you want to build don't waste your time below +55 dBm, go for the legal limit.

73!
-Galen

4221. Re: Making a rotor.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-22 15:01:08 UTC
From: Highland Ham <abcgm0csz.kn6whxyz@abcntlworldxyz.com>
Message-ID: <U_fyd.243$u3.210@newsfe4-gui.ntli.net>
Source record: 21505

> I am a under funded newbie ham. I am wanting to set up a base station
> at home. Can I make my own rotor cheaply? Maybe using a dc motor or
> something? How would I go about doing it? I have a catalog to surplus
> center that has many in it.
==========
First a few questions :
1) What type of rotating antenna do you intend using , a small Yagi ,a large Yagi , a small or big Quad antenna ?
2) Do you suffer ,from time to time , from high winds in your area ?

Especially heavy rotating antennas with a relatively high wind loading need a powerful motor/gearbox + a BRAKE !
The latter is an absolute necessity otherwise the internal gear train will be wasted in a short time.
Another requirement for the rotor is to be weather proof.
If the whole mast , either fitted against a building or other elevated structure (steel tower) ,is rotating from top to bottom (inside bearings) the electric rotator can be fitted at ground floor level . This allows some freedom in selecting electric motor + gear box and brake . In this situation you might not need an electric drive at all since the rotation could possibly be established by purely mechanical means (pulleys + belt/cable/rope) with a ditto clamp preventing rotation when stationary.

However with the rotator in an elevated position (near the antenna) a homebrew unit is probably 'very difficult' .
Perhaps others on this NG would care to comment.

Frank GM0CSZ/KN6WH

4222. Svetlana catalog online

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-22 15:24:33 UTC
From: John Walton <jdwalton@comcast.net>
Message-ID: <LeidnSWa-vD6DVTcRVn-pQ@comcast.com>
Source record: 21506

courtesty of RAT, a bunch of the PDF's for the Svetlana website were posted
to alt.binaries.e-book.technical -- a lot of high power transmitting
tubes -- there are something like 70 or 80 different files.

4223. Re: Making a rotor.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-22 15:26:48 UTC
From: John Walton <jdwalton@comcast.net>
Message-ID: <u-mdnZoyTrptDVTcRVn-iQ@comcast.com>
Source record: 21507

when I first started as a ham (in the early 1960's) people used "prop-pitch"
motors for their antennae -- I don't know if Fair Radio has them anymore --
they were a regular item at the Dayton Hamfest way back then.

I just sold a CDR rotor (with controller) on EBay a few months ago.

<stryped@hotmail.com> wrote in message
news:1103724160.992087.157830@z14g2000cwz.googlegroups.com...
> I am a under funded newbie ham. I am wanting to set up a base station
> at home. Can I make my own rotor cheaply? Maybe using a dc motor or
> something? How would I go about doing it? I have a catalog to surplus
> center that has many in it.
>

4224. Re: Tektronix 465 Scope

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-22 15:31:41 UTC
From: "Nicholas O. Lindan" <see@sig.com>
Message-ID: <xrgyd.9632$Z47.9474@newsread2.news.atl.earthlink.net>
Source record: 21508
Cross-posted to: sci.electronics.design,rec.radio.amateur.homebrew

"Highland Ham" <abcgm0csz.kn6whxyz@abcntlworldxyz.com> wrote

> WD40 is NOT the right cleaning agent for electrical systems
> involving plastic insulation re wiring, etc.

That was also my impression. But I have used it on plastics and
have not found any problems after 20 years. Famous last words,
I know. I have used it as a contact cleaner with great success.

--
Nicholas O. Lindan, Cleveland, Ohio
Consulting Engineer: Electronics; Informatics; Photonics.
Remove spaces etc. to reply: n o lindan at net com dot com
psst.. want to buy an f-stop timer? nolindan.com/da/fstop/

4225. Re: Tektronix 465 Scope

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-22 15:41:04 UTC
From: "Nicholas O. Lindan" <see@sig.com>
Message-ID: <kAgyd.9655$Z47.4580@newsread2.news.atl.earthlink.net>
Source record: 21509
Cross-posted to: sci.electronics.design,rec.radio.amateur.homebrew

"Roy Lewallen" <w7el@eznec.com> wrote

> cam switches in the 465 and some other scopes use PC board pads for
> contacts, and when the pad's gold plating is gone, the switch -- and the
> scope -- is dead.

It is possible to re-plate the gold. But imagining the circuit board
it may be impossible to mask the components. Aw, what the heck - gold
plate the whole thing and screw it to your Hinkley yacht.

--
Nicholas O. Lindan, Cleveland, Ohio
Consulting Engineer: Electronics; Informatics; Photonics.
Remove spaces etc. to reply: n o lindan at net com dot com
psst.. want to buy an f-stop timer? nolindan.com/da/fstop/

4226. Re: Svetlana catalog online

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-22 16:31:31 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <Djhyd.15510$dv1.11355@edtnps89>
Source record: 21510

Hope you all enjoy! :-)

--
Gregg t3h g33k
"Ratings are for transistors....tubes have guidelines"
http://geek.scorpiorising.ca

4227. Re: Tektronix 465 Scope

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-22 17:13:13 UTC
From: "Jim Yanik"
Message-ID: <Xns95C77BF90D110jyanikkuanet@129.250.170.83>
Source record: 21511
Cross-posted to: sci.electronics.design,rec.radio.amateur.homebrew

John Miles <jmiles@pop.removethistomailme.net> wrote in
news:MPG.1c32b900236c823e98975f@news-central.giganews.com:

> Some of these gurus are admittedly respected veterans of companies
> such as Tektronix, with whom mere mortals are loath to argue.

I worked for TEK for 21.5 years as a service tech in 2 of their field
offices;repaired and cal'd a lot of scopes and other TEK products.

> All I
> can say is, those switches must not have been of the greatest quality
> in the first place, or the gurus wouldn't have to spend so much of
> their time on Usenet warning people against hosing them down with
> WD-40.

Considering how longlasting and popular the 465 is,that's not a very smart
sentence.The same HF and LF cam switches were also used in the high-
performance 7000 series lab scopes.

>
> Just sayin', is all. No disrespect intended. :)
>
> -- jm

Same here.

--
Jim Yanik
jyanik-at-kua.net

4228. Re: 6m amp design?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-22 18:10:20 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <hsdjs0trtrffkhvldseq0ksp4sggsoh0sf@4ax.com>
Source record: 21512

On Wed, 22 Dec 2004 02:38:16 GMT, Gregg <nospam@unknown.org> wrote:

>Check out some of the tube beauties through Google :-)

had some Thomson-CSF devices capable or 350W, but a friend insisted on
trying 2x PL509, although it hasn't been smoke tested, yet. It should
be capable of 3-400W amateur standard performance with -30dB IMD with
only 600V high voltage, see http://home.online.no/~la8ak/d6.htm

73
jm

J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

4229. Re: Svetlana catalog online

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-22 18:13:24 UTC
From: "Adrian Rees (M1LCR)" <rees.a@btconnect.com>
Message-ID: <cqcdg4$k14$1@hercules.btinternet.com>
Source record: 21513

Try this URL, there's even more ! (With some very interesting mods to the old faithfull Dentron ML2500).

http://216.87.144.102/svetlana/techbulletins.asp

Adrian Rees (M1LCR)

"John Walton" <jdwalton@comcast.net> wrote in message news:LeidnSWa-vD6DVTcRVn-pQ@comcast.com...
> courtesty of RAT, a bunch of the PDF's for the Svetlana website were posted
> to alt.binaries.e-book.technical -- a lot of high power transmitting
> tubes -- there are something like 70 or 80 different files.
>
>

4230. Re: Making a rotor.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-22 18:20:52 UTC
From: john graesser <graesser@tca.net>
Message-ID: <10sjebtgliur989@corp.supernews.com>
Source record: 21514

"John Walton" <jdwalton@comcast.net> wrote in message
news:u-mdnZoyTrptDVTcRVn-iQ@comcast.com...
> when I first started as a ham (in the early 1960's) people used
"prop-pitch"
> motors for their antennae -- I don't know if Fair Radio has them
anymore --
> they were a regular item at the Dayton Hamfest way back then.
>
> I just sold a CDR rotor (with controller) on EBay a few months ago.

And at the other extreme, when I was first a ham in the mid 90's, I used a
tv rotator on a push up pole rotating a 3 element 2m yagi and a 40 m dipole
made with 2 40 m mobile whips. It all depends on the antenna array you
intend to move and what the winds are going to be like.
thanks, John.
KC5DWD

4231. Re: Tektronix 465 Scope

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-22 19:20:12 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10sji7cq5h8dj18@corp.supernews.com>
Source record: 21515
Cross-posted to: sci.electronics.design,rec.radio.amateur.homebrew

If there's any disagreement between what I say and what Jim says about maintaining Tek scopes, listen to Jim and not me. He was there in the trenches; I wasn't.

Roy Lewallen, W7EL

Jim Yanik wrote:
>
> I worked for TEK for 21.5 years as a service tech in 2 of their field
> offices;repaired and cal'd a lot of scopes and other TEK products.
> . . .

4232. Re: Making a rotor.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-22 19:43:49 UTC
From: w9gb <onw9mapsgb@no.ar.spam.rl.net>
Message-ID: <V7kyd.225897$5K2.130763@attbi_s03>
Source record: 21516

<stryped@hotmail.com> wrote in message
news:1103724160.992087.157830@z14g2000cwz.googlegroups.com...
>I am a under funded newbie ham. I am wanting to set up a base station
> at home. Can I make my own rotor cheaply? Maybe using a dc motor or
> something? How would I go about doing it? I have a catalog to surplus
> center that has many in it.
>

Please a want ad in the news papers of fringe and deep fringe areas of the US, such as western and southern Illinois. You should have hundreds offered for postage !

gb

4233. Re: Tektronix 465 Scope

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-22 19:55:03 UTC
From: BFoelsch <BFoelsch@comcast.ditch.this.net>
Message-ID: <aoCdneqngaiLTFTcRVn-qA@giganews.com>
Source record: 21517
Cross-posted to: sci.electronics.design,rec.radio.amateur.homebrew

I recently gave away a 465 that was giving me fits. I don't know what happened to it, but it had squirrelly problems all over. It was shipped to Tek for repair in the early 1990's and Tek said it was unrepairable. Of course I knew better.......

It was used extensively in field service, and was probably vibrated to death, but it had the damndest problems I ever saw. The ones that really killed me (other than the vertical attenuator switches) were an oscillation in the Ch 1 vertical, inability to get a smooth leading edge on a fast rise (fall was OK) and an intermittently failing intensified sweep. I spent about 100 hours on that thing and never did get it to work right. I don't know if that had multi-layer boards or not, but it acted like some inaccessible connections were intermittent. I checked and changed component after component, and there would always be one more trouble. That was my weekend for a few months; I would start and go througn the WHOLE calibration procedure (including the stuff that everybody skips, like swinging the line to check the power supply at high and low line conditions) to see how far I could get this time. Undoubtedly I would stop at some point because the adjustment didn't have enough range or some such. I'd fix that and next week a different set of stuff wouldn't work. The problems were never expensive stuff, just resistors and capacitors.

That was the ONLY Tek scope that ever stumped me. I even managed to keep a 647 running, and those NEVER worked.

Yes indeed. The perversity of the inanimate.

So I gave away the 465 and bought a TDS2012. Took a little getting used to, but I've never looked back. Still have the old reliable 547 and a whole slew of plug-ins in the corner, but they are going to need a new home before too long.

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:10sji7cq5h8dj18@corp.supernews.com...
> If there's any disagreement between what I say and what Jim says about
> maintaining Tek scopes, listen to Jim and not me. He was there in the
> trenches; I wasn't.
>
> Roy Lewallen, W7EL
>
> Jim Yanik wrote:
>>
>> I worked for TEK for 21.5 years as a service tech in 2 of their field
>> offices;repaired and cal'd a lot of scopes and other TEK products.
>> . . .

4234. Re: Tektronix 465 Scope

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-22 21:05:57 UTC
From: Bob Stephens <stephensyomamadigital@earthlink.net>
Message-ID: <1lew3waxlb6mj$.gqna0v1rc06l$.dlg@40tude.net>
Source record: 21518
Cross-posted to: sci.electronics.design,rec.radio.amateur.homebrew

On Wed, 22 Dec 2004 14:55:03 -0500, BFoelsch wrote:

> So I gave away the 465 and bought a TDS2012. Took a little getting used to,
> but I've never looked back. Still have the old reliable 547 and a whole slew
> of plug-ins in the corner, but they are going to need a new home before too
> long.

Tek won't fix the 2012 either :(

4235. Re: Tektronix 465 Scope

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-22 21:07:34 UTC
From: BFoelsch <BFoelsch@comcast.ditch.this.net>
Message-ID: <nOCdnSz8L-ilf1TcRVn-uQ@giganews.com>
Source record: 21519
Cross-posted to: sci.electronics.design,rec.radio.amateur.homebrew

"Bob Stephens" <stephensyomamadigital@earthlink.net> wrote in message
news:1lew3waxlb6mj$.gqna0v1rc06l$.dlg@40tude.net...
> On Wed, 22 Dec 2004 14:55:03 -0500, BFoelsch wrote:
>
>> So I gave away the 465 and bought a TDS2012. Took a little getting used
>> to,
>> but I've never looked back. Still have the old reliable 547 and a whole
>> slew
>> of plug-ins in the corner, but they are going to need a new home before
>> too
>> long.
>
> Tek won't fix the 2012 either :(

Well, it did come with a three year warranty, and it does work well right
now, which is more than the 465 did. But I hear you. Time will tell.

4236. Re: 6m amp design?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-22 22:32:11 UTC
From: w9gb <onw9mapsgb@no.ar.spam.rl.net>
Message-ID: <KBmyd.226460$5K2.3952@attbi_s03>
Source record: 21520

"Ken Bessler" <kg0wx@NOSPAMyahoo.com> wrote in message
news:P02yd.3$ph.0@okepread01...
> I'd like to build a 6m SSB amp that uses about 10-14
> watts of drive and delivers at least 100w.
>
> Anyone know of plans online for one?
>
> Ken KG0WX
>
Chris, G3WOS has a very well documented compact design using the Eimac 8877
http://www.gare.co.uk/amplifier/

Plenty of power.

w9gb

4237. Re: Tektronix 465 Scope

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-23 01:01:17 UTC
From: "Jim Yanik"
Message-ID: <Xns95C7CB5433DB7jyanikkuanet@129.250.170.83>
Source record: 21522
Cross-posted to: sci.electronics.design,rec.radio.amateur.homebrew

"BFoelsch" <BFoelsch@comcast.ditch.this.net> wrote in
news:aoCdneqngaiLTFTcRVn-qA@giganews.com:

> I recently gave away a 465 that was giving me fits. I don't know what
> happened to it, but it had squirrelly problems all over. It was
> shipped to Tek for repair in the early 1990's and Tek said it was
> unrepairable. Of course I knew better.......
>
> It was used extensively in field service, and was probably vibrated to
> death, but it had the damndest problems I ever saw. The ones that
> really killed me (other than the vertical attenuator switches) were an
> oscillation in the Ch 1 vertical, inability to get a smooth leading
> edge on a fast rise (fall was OK) and an intermittently failing
> intensified sweep. I spent about 100 hours on that thing and never did
> get it to work right. I don't know if that had multi-layer boards or
> not, but it acted like some inaccessible connections were
> intermittent. I checked and changed component after component, and
> there would always be one more trouble. That was my weekend for a few
> months; I would start and go througn the WHOLE calibration procedure
> (including the stuff that everybody skips, like swinging the line to
> check the power supply at high and low line conditions) to see how far
> I could get this time. Undoubtedly I would stop at some point because
> the adjustment didn't have enough range or some such. I'd fix that and
> next week a different set of stuff wouldn't work. The problems were
> never expensive stuff, just resistors and capacitors.
>
> That was the ONLY Tek scope that ever stumped me. I even managed to
> keep a 647 running, and those NEVER worked.
>
> Yes indeed. The perversity of the inanimate.
>
> So I gave away the 465 and bought a TDS2012. Took a little getting
> used to, but I've never looked back. Still have the old reliable 547
> and a whole slew of plug-ins in the corner, but they are going to need
> a new home before too long.
>

Trying to support a TEK product without the Tek selected transistors and
other specialized components is extremely difficult.
One of the first things I did when getting a unit that someone else had
tried to repair was to find and remove all the non-Tek xstrs,and replace
with the proper TEK parts.They were often causes of oscillations and bad HF
responses.Some scopes may have had ferrite beads used in some places lost
or not installed with the new transistors.One other common problem was a

black silver oxide growing on the tiny HF trimmer caps,especially on the bottom of them,acting as an insulator and making the cap open and ineffective.

IMO,the HF cam contacts used in the attenuators should be failing and no longer repairable due to the plastic part that holds the gold contact to the spring metal degrading and coming apart,or loss of spring tension. That's a problem with using plastic parts,they outgass and eventually degrade and lose strength.Some of the atten intermittents can be due to the outgassing making a film on the contacts and pads.

--
Jim Yanik
jyanik-at-kua.net

4238. Re: Svetlana catalog online

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-23 01:03:36 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <IPoyd.6711$Y72.3510@edtnps91>
Source record: 21521

Behold, Adrian Rees \(M1LCR\) signalled from keyed 4-1000A filament:

> Try this URL, there's even more ! (With some very interesting mods to
> the old faithfull Dentron ML2500).
>
>
>
> http://216.87.144.102/svetlana/techbulletins.asp

Awesome!

I thought the domain was kaput. I ran "wget -r" on their site before New
Sensor took the brandname over.

--
Gregg t3h g33k
"Ratings are for transistors....tubes have guidelines"
http://geek.scorpiorising.ca

4239. Re: Tektronix 465 Scope

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-23 01:06:10 UTC
From: "Jim Yanik"
Message-ID: <Xns95C7CC28625D7jyanikkuanet@129.250.170.83>
Source record: 21523
Cross-posted to: sci.electronics.design,rec.radio.amateur.homebrew

Bob Stephens <stephensyomamadigital@earthlink.net> wrote in
news:1lew3waxlb6mj$.gqna0v1rc06l$.dlg@40tude.net:

> On Wed, 22 Dec 2004 14:55:03 -0500, BFoelsch wrote:
>
>> So I gave away the 465 and bought a TDS2012. Took a little getting
>> used to, but I've never looked back. Still have the old reliable 547
>> and a whole slew of plug-ins in the corner, but they are going to
>> need a new home before too long.
>
> Tek won't fix the 2012 either :(

TEK has a Long Term Product Support(LTPS) policy,where the item will be
serviceable by TEK X number of years after it's last sold in their catalog.
They have a list of whats supported and for how long on their website,IIRC.
"X" used to be 9 years,then got cut to 6,then some items are only ONE year.
That's why you have to check the list.
Also,repair prices climb in the last couple of years of "support",to
encourage you to buy a new unit.

AFTER the LTPS period is over,the item is no longer supported at all.
No exchange modules,and no parts support unless the part is used in a
current product.

--
Jim Yanik
jyanik-at-kua.net

4240. Re: Tektronix 465 Scope

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-23 03:12:40 UTC
From: BFoelsch <BFoelsch@comcast.ditch.this.net>
Message-ID: <w-idnR1P2sg1qlfcRVn-hA@giganews.com>
Source record: 21524
Cross-posted to: sci.electronics.design,rec.radio.amateur.homebrew

"Jim Yanik" <jyanik@abuse.gov.> wrote in message
news:Xns95C7CB5433DB7jyanikkuanet@129.250.170.83...
> "BFoelsch" <BFoelsch@comcast.ditch.this.net> wrote in
> news:aoCdneqngaiLTFTcRVn-qA@giganews.com:
>
>> I recently gave away a 465 that was giving me fits. I don't know what
>> happened to it, but it had squirrelly problems all over. It was
>> shipped to Tek for repair in the early 1990's and Tek said it was
>> unrepairable. Of course I knew better.......
>>
>> It was used extensively in field service, and was probably vibrated to
>> death, but it had the damndest problems I ever saw. The ones that
>> really killed me (other than the vertical attenuator switches) were an
>> oscillation in the Ch 1 vertical, inability to get a smooth leading
>> edge on a fast rise (fall was OK) and an intermittently failing
>> intensified sweep. I spent about 100 hours on that thing and never did
>> get it to work right. I don't know if that had multi-layer boards or
>> not, but it acted like some inaccessible connections were
>> intermittent. I checked and changed component after component, and
>> there would always be one more trouble. That was my weekend for a few
>> months; I would start and go througn the WHOLE calibration procedure
>> (including the stuff that everybody skips, like swinging the line to
>> check the power supply at high and low line conditions) to see how far
>> I could get this time. Undoubtedly I would stop at some point because
>> the adjustment didn't have enough range or some such. I'd fix that and
>> next week a different set of stuff wouldn't work. The problems were
>> never expensive stuff, just resistors and capacitors.
>>
>> That was the ONLY Tek scope that ever stumped me. I even managed to
>> keep a 647 running, and those NEVER worked.
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>> Yes indeed. The perversity of the inanimate.
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>> So I gave away the 465 and bought a TDS2012. Took a little getting
>> used to, but I've never looked back. Still have the old reliable 547
>> and a whole slew of plug-ins in the corner, but they are going to need
>> a new home before too long.
>>
>
> Trying to support a TEK product without the Tek selected transistors and
> other specialized components is extremely difficult.
> One of the first things I did when getting a unit that someone else had
> tried to repair was to find and remove all the non-Tek xstrs,and replace

> with the proper TEK parts.They were often causes of oscillations and bad
> HF
> responses.Some scopes may have had ferrite beads used in some places lost
> or not installed with the new transistors.One other common problem was a
> black silver oxide growing on the tiny HF trimmer caps,especially on the
> bottom of them,acting as an insulator and making the cap open and
> ineffective.
>
> IMO,the HF cam contacts used in the attenuators should be failing and no
> longer repairable due to the plastic part that holds the gold contact to
> the spring metal degrading and coming apart,or loss of spring tension.
> That's a problem with using plastic parts,they outgass and eventually
> degrade and lose strength.Some of the atten intermittents can be due to
> the
> outgassing making a film on the contacts and pads.

Yes, this unit could indeed have had some non-Tek semiconductors in it. I got the HF ocsillation to stop by putting a few gimmick capacitors, less that 1 pF, at the output of the Ch 1 vertical amp. Didn't affect the frequency response any, but the vertical output amp had a few extra time constants visible on a leading edge that none of the adjustments would control.

It was a real learning experience, but the patient died. One thing I DID learn was that gold-plated sockets don't mean a thing if they mate with tinned leads. When I first got that scope almost nothing worked, and major recovery was effected by removing and replacing all the socketed connectiions, which in that scope included virtually all of the semiconductors. I also suspected that that scope was not a "complete" instrument; seems to me that the versions and serial numbers didn't really agree, as if someone tried to make one good scope out of parts from other ones that were of varying vintages.

Anyway, I decided that I am out of the scope-fixing business. It's kind of like changing the engine in a car, the first couple dozen are fun, and after that its just plain work.

>
>
> --
> Jim Yanik
> jyanik-at-kua.net

4241. Re: Tektronix 465 Scope

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-23 03:34:02 UTC
From: budgie <me@privacy.net>
Message-ID: <9ueks0tkk5131gj11cf1mogcea1krvj32f@4ax.com>
Source record: 21525
Cross-posted to: sci.electronics.design,rec.radio.amateur.homebrew

On Wed, 22 Dec 2004 05:15:23 -0800, Roy Lewallen <w7el@eznec.com> wrote:

(snip)

>Before introducing a new instrument, we went through a lengthy process
>of building and testing prototypes, which I described some time ago in
>this newsgroup. In one group, it was our practice to borrow some
>assemblers from production to build the prototypes. One afternoon I was
>looking at some units they had built, after they had left for the day,
>and saw that the plastic of some switch bodies was very badly crazed --
>they were covered with tiny cracks. Some experiments with bottles of
>solvent we found in some of the assemblers' work areas pinned it down to
>one particular liquid. The problem was one of the ingredients, which was
>a relatively common solvent of the time. Unfortunately, I don't recall
>which one -- it was something pretty mild as solvents go, like toluene
>or Freon, not a relatively strong solvent like acetone, which we all
>knew better than to use. We found out that the solvent had been banned
>from production, but the assemblers kept a supply out of sight because
>it was really good at removing flux.

May well have been toluene. It was often used as a cleaner in all sorts of
areas, some as pedestrian as the T/R/S plugs on old lamp-signalling telephone
switchboards. Unfortunately proved to be a carcinogen and was banned, but it
WAS used to clean a myriad of hardware in a myriad of situations.

4242. Re: Tektronix 465 Scope

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-23 05:09:21 UTC
From: Rick Frazier <rickf@rickfrazier.com>
Message-ID: <41CA5345.660FA12B@rickfrazier.com>
Source record: 21526
Cross-posted to: sci.electronics.design,rec.radio.amateur.homebrew

budgie wrote:

> (snip)
>
> May well have been toluene. It was often used as a cleaner in all sorts of
> areas, some as pedestrian as the T/R/S plugs on old lamp-signalling telephone
> switchboards. Unfortunately proved to be a carcinogen and was banned, but it
> WAS used to clean a myriad of hardware in a myriad of situations.

Banned? Perhaps from use as a general solvent in assembly areas, but if you walk into most hardware stores (such as Ace), you can buy it in gallons in their paint sections... Pretty cheap too!

It's at least a bit amazing that one industry may ban an item, yet another still provides it...
It seems that you can't purchase lacquer paint for an automobile anywhere at this point, yet can still buy gallons of lacquer thinner (and lacquer based paints for wood) at the local hardware store... sigh...

--Rick AH7H

4243. Re: FREAKY WOMAN WITH 2 DICKS ! ! 3009 [2/2]

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-23 06:51:41 UTC
From: Gizmofiddler <file13@nojunkmail.com>
Message-ID: <41ca6926_1@newspeer2.tds.net>
Source record: 21527
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy

.scr
virus
<ngemnd@optonline.net> wrote in message news:qJpyd.7306$vu2.2887@fe11.lga...

4244. Re: Tektronix 465 Scope

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-23 07:30:44 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <MPG.1c335dec35cc6866989760@news-central.giganews.com>
Source record: 21528
Cross-posted to: sci.electronics.design,rec.radio.amateur.homebrew

In article <Xns95C77BF90D110jyanikkuanet@129.250.170.83>,
jyanik@abuse.gov. says...

> Considering how longlasting and popular the 465 is,that's not a very smart
> sentence.The same HF and LF cam switches were also used in the high-
> performance 7000 series lab scopes.
>

True enough in the case of the 465. That model in particular seems to
have been very robust. You don't see many owners asking about how to
clean 465 switches.

485 switches, though, are another thing entirely. It's very rare to see
a 485 whose vertical attenuator switches aren't noisy. Perhaps gold-pad
abrasion has caught up to the instruments over time; however, I'm
personally aware of at least two anecdotal cases of noisy 485 switches
being fixed (at least for the time being) with contact cleaner.

It's possible there's more than one cause of switch degradation at work
in the 485 and other notorious "problem children." Either way, though,
the original designers were clearly not omniscient in all cases, or the
problems with certain models wouldn't be as widespread as they are. I
wish there were a sure-fire way to fix the 485's front-end switches; it
was my favorite Tek scope of the bunch otherwise.

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

4245. Re: Tektronix 465 Scope

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-23 08:20:30 UTC
From: John Woodgate <jmw@jmwa.demon.contraspam.yuk>
Message-ID: <iVUNzuBO$nyBFw7s@jmwa.demon.co.uk>
Source record: 21529
Cross-posted to: sci.electronics.design,rec.radio.amateur.homebrew

I read in sci.electronics.design that budgie <me@privacy.net> wrote (in <9ueks0tkk5131gj11cf1mogcea1krvj32f@4ax.com>) about 'Tektronix 465 Scope', on Thu, 23 Dec 2004:

>May well have been toluene. It was often used as a cleaner in all sorts
>of areas, some as pedestrian as the T/R/S plugs on old lamp-signalling
>telephone switchboards. Unfortunately proved to be a carcinogen and was
>banned, but it WAS used to clean a myriad of hardware in a myriad of
>situations.

Toluene is one of the aromatics that is NOT carcinogenic. From the ATSDR web site:

QUOTE
Studies in workers and animals exposed to toluene generally indicate that toluene does not cause cancer. The International Agency for Research on Cancer (IARC) and the Department of Health and Human Services (DHHS) have not classified toluene for carcinogenic effects. The EPA has determined that toluene is not classifiable as to its human carcinogenicity.
ENDQUOTE

Toluene is available in small quantities as a solvent for contact adhesive. It DOES attack some plastics, and those it attacks slowly can exhibit surface dulling and crazing.
--
Regards, John Woodgate, OOO - Own Opinions Only.
The good news is that nothing is compulsory.
The bad news is that everything is prohibited.
http://www.jmwa.demon.co.uk Also see http://www.isce.org.uk

4246. Re: Tektronix 465 Scope

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-23 09:04:23 UTC
From: Ralph Mowery <rmowery28146@earthlink.net>
Message-ID: <rSvyd.10022$yK.9670@newsread3.news.atl.earthlink.net>
Source record: 21530
Cross-posted to: sci.electronics.design,rec.radio.amateur.homebrew

> May well have been toluene. It was often used as a cleaner in all sorts
of
> areas, some as pedestrian as the T/R/S plugs on old lamp-signalling
telephone
> switchboards. Unfortunately proved to be a carcinogen and was banned, but
it
> WAS used to clean a myriad of hardware in a myriad of situations.

It might have been carbon tet (tetracloride or however it is spelled). I
think it was taken off the market because of either liver or kidney failure
if the user had been drinking .

4247. Anybody Else Here Yosemite Sam on 3700 kHz DSB?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-23 15:52:30 UTC
From: n2ey@aol.comSPAMNO
Message-ID: <20041223105230.06515.00000440@mb-m15.aol.com>
Source record: 21531

Also reported on 4300, 6500 and 11100 kHz.

73 de Jim, N2EY

4248. Re: Tektronix 465 Scope

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-23 16:10:55 UTC
From: Guy Macon <_see.web.page_@_www.guymacon.com_>
Message-ID: <10slrl4h5mcufa3@corp.supernews.com>
Source record: 21532
Cross-posted to: sci.electronics.design,rec.radio.amateur.homebrew

Other than speed, is there any difference between a 465B and
a 475/475A that I should know about? I am looking for a
replacement but I want all or nearly all of the knobs to be
the same.

4249. RF Transistors For Sale

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-23 16:41:23 UTC
From: Norm VE3CZI <ve3czi@arrl.net>
Message-ID: <dyCyd.391$0y4.30@read1.cgocable.net>
Source record: 21533
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.swap

Have a quantity of EF Johnson & Motorola Transistors For Sale...See Excel
Listing
http://home.cogeco.ca/~rodemi/Images%20[MISC]/JSN%20RF%20Power%20Transistors.xls

Thank you for looking Seasons Greetings
73...Norm VE3CZI
Email: ve3czi at RAC dot CA

4250. Re: Tektronix 465 Scope

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-23 16:44:05 UTC
From: Bill Janssen <billj9@ieee.org>
Message-ID: <pBCyd.437$Zm6.88@news01.roc.ny>
Source record: 21534
Cross-posted to: sci.electronics.design,rec.radio.amateur.homebrew

Ralph Mowery wrote:

>>May well have been toluene. It was often used as a cleaner in all sorts
>>
>>
>of
>
>
>>areas, some as pedestrian as the T/R/S plugs on old lamp-signalling
>>
>>
>telephone
>
>
>>switchboards. Unfortunately proved to be a carcinogen and was banned, but
>>
>>
>it
>
>
>>WAS used to clean a myriad of hardware in a myriad of situations.
>>
>>
>
>It might have been carbon tet (tetracloride or however it is spelled). I
>think it was taken off the market because of either liver or kidney failure
>if the user had been drinking .
>
>
>
>
When carbon tet was removed from telephone offices there was a story
about a technician spilling some
on a operator. The operator lost here hair and finger nails. Don't know
if that is true but we had to
remove all carbon tet from the cleaning supplies.

Bill K7NOM

4251. Standard GX-3000 VHF Radio used for APRS

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-23 16:51:53 UTC
From: Norm VE3CZI <ve3czi@arrl.net>
Message-ID: <4ICyd.392$0y4.302@read1.cgocable.net>
Source record: 21535
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.swap

Standard GX-3000 VHF APRS Radios. [with DTMF]
I have a quantity of Commercial Standard GX-3000 VHF Mobile Radios (136-150Mhz) 25-30 Watts O/P These radios will work excellent as an APRS Mobile OR Base Radio Station. Units are much cheaper to use for dedicated APRS use rather than spending Large Dollars for a VHF Amateur XCVR and dedicate it to APRS use. Programmed & Tested Operational on 144.390 Mhz. You will have to make up the Interface Cable. These radios are capable of 64 Channels, Carrier Squelch Only and I can program them for other 2 Meter Frequencies for a charge. Please ask should you have any questions.
Cost: $45 USD plus shipping
73...Norm VE3CZI
Email: ve3czi at rac dot ca

4252. Re: Tektronix 465 Scope

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-23 17:46:37 UTC
From: "Jim Yanik"
Message-ID: <Xns95C881A32F16Djyanikkuanet@129.250.170.84>
Source record: 21536
Cross-posted to: sci.electronics.design,rec.radio.amateur.homebrew

John Miles <jmiles@pop.removethistomailme.net> wrote in
news:MPG.1c335dec35cc6866989760@news-central.giganews.com:

> In article <Xns95C77BF90D110jyanikkuanet@129.250.170.83>,
> jyanik@abuse.gov. says...
>
>> Considering how longlasting and popular the 465 is,that's not a very
>> smart sentence.The same HF and LF cam switches were also used in the
>> high- performance 7000 series lab scopes.
>>
>
> True enough in the case of the 465. That model in particular seems to
> have been very robust. You don't see many owners asking about how to
> clean 465 switches.
>
> 485 switches, though, are another thing entirely. It's very rare to
> see a 485 whose vertical attenuator switches aren't noisy. Perhaps
> gold-pad abrasion has caught up to the instruments over time; however,
> I'm personally aware of at least two anecdotal cases of noisy 485
> switches being fixed (at least for the time being) with contact
> cleaner.
>
> It's possible there's more than one cause of switch degradation at
> work in the 485 and other notorious "problem children." Either way,
> though, the original designers were clearly not omniscient in all
> cases, or the problems with certain models wouldn't be as widespread
> as they are. I wish there were a sure-fire way to fix the 485's
> front-end switches; it was my favorite Tek scope of the bunch
> otherwise.
>
> -- jm

Both 465 and 485 use the same HF cam switch contacts.

TEK used to have a repair kit that included both contacts,drill bits to
remove the securing rivets,and tiny nuts and bolts to secure the new
contacts.

They also had a repair kit for the LF contacts used in the timing
switch,with an alignment guide to get them straight.

Both are no longer available.
--
Jim Yanik
jyanik-at-kua.net

4253. Re: Anybody Else Here Yosemite Sam on 3700 kHz DSB?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-23 20:06:04 UTC
From: Dale Parfitt <par@parelectronics.com>
Message-ID: <MyFyd.2256$Y57.866@trnddc08>
Source record: 21537

"N2EY" <n2ey@aol.comSPAMNO> wrote in message
news:20041223105230.06515.00000440@mb-m15.aol.com...
> Also reported on 4300, 6500 and 11100 kHz.
>
> 73 de Jim, N2EY

Check this out:
http://www.spynumbers.com/YosemiteSam.html

Looks like somewhere out west.

Dale W4OP

4254. Re: FREAKY WOMAN WITH 2 DICKS ! ! 3009 [2/2]

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-23 21:15:18 UTC
From: Anonymous <mix@itys.net>
Message-ID: <e6e2af84d37b4700c9c2a1fe7bd389d1@itys.net>
Source record: 21538
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy

In article <41ca6926_1@newspeer2.tds.net>
"Gizmofiddler" <fil...@nojunkmail.com> wrote:
>
> .scr
> virus
> <nge...@optonline.net> wrote in message news:qJpyd.7306$vu2.2887@fe11.lga...

Now, you shouldn't publicize Lardass Lloyd Davies' (N0VFP) mommy like that! Especially around Christmas, when she's already overworked servicing the transsexuals as it is.

4255. Re: FREAKY WOMAN WITH 2 DICKS ! ! 3009 [2/2]

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-23 21:59:39 UTC
From: nobody@See.Comments.Header
Message-ID: <SDG27SRK38344.9580902778@anonymous.poster>
Source record: 21539

In article <41ca6926_1@newspeer2.tds.net>
"Gizmofiddler" <fil...@nojunkmail.com> wrote:
>
> .scr
> virus
> <nge...@optonline.net> wrote in message news:qJpyd.7306$vu2.2887@fe11.lga...

Now, you shouldn't publicize Lardass Lloyd Davies' (N0VFP) mommy like that! Especially around Christmas, when she's already overworked servicing the transsexuals as it is.

4256. FA 2n3866's mixers etc

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-24 00:18:10 UTC
From: john cincotta <johncincotta@comcast.net>
Message-ID: <5fJyd.246875$V41.27376@attbi_s52>
Source record: 21540

For Auction at the e___ site
seller poorlittleradio

1 lot per line

5 ea 2n3866 Mot NOS

2 ea Minicircuits SBL-1 double balanced mixers NOS

2 ea Minicircuits SBL-2lh lvl 10 DBM NOS for those wanting more front
end protection

2 ea NOS Minicircuits SRA-2CM DBM's

2 ea NOS Minicircuits ASK-1 DBM's

2 ea NOS?? Minicircuits SRA-6

5 ea EC-EMS-1 DBM tested and believed to be sbl-1 replacement

3 ea phillips ne602's dip NOS? they do not appear to be pulls

1 ea 50k 10 turn pot with counter dial used but tested no dead spots

see

http://search.ebay.com/_W0QQgotopageZ1QQsassZpoorlittleradioQQsorecordsperpageZ50QQsosortpropertyZ1

for a list of my auctions

good luck and happy holidays to all

73 de n6plr

John Cincotta

4257. Re: Tektronix 465 Scope

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-24 00:55:25 UTC
From: Rich Grise <rich@example.net>
Message-ID: <pan.2004.12.24.00.07.55.710359@example.net>
Source record: 21541
Cross-posted to: sci.electronics.design,rec.radio.amateur.homebrew

On Thu, 23 Dec 2004 16:44:05 +0000, Bill Janssen wrote:
> Ralph Mowery wrote:
>
>>It might have been carbon tet (tetracloride or however it is spelled). I
>>think it was taken off the market because of either liver or kidney failure
>>if the user had been drinking .
>>
> When carbon tet was removed from telephone offices there was a story
> about a technician spilling some
> on a operator. The operator lost here hair and finger nails.

This is so stupid it's ludicrous.

> Don't know
> if that is true but we had to
> remove all carbon tet from the cleaning supplies.

That's typical government wisdumb for you. Make laws based on hysteria.

Cheers!
Rich

4258. Re: Tektronix 465 Scope

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-24 00:56:35 UTC
From: Rich Grise <rich@example.net>
Message-ID: <pan.2004.12.24.00.09.02.993573@example.net>
Source record: 21542
Cross-posted to: sci.electronics.design,rec.radio.amateur.homebrew

On Thu, 23 Dec 2004 08:20:30 +0000, John Woodgate wrote:

> I read in sci.electronics.design that budgie <me@privacy.net> wrote (in
> <9ueks0tkk5131gj11cf1mogcea1krvj32f@4ax.com>) about 'Tektronix 465
> Scope', on Thu, 23 Dec 2004:
>
>>May well have been toluene. It was often used as a cleaner in all sorts
>>of areas, some as pedestrian as the T/R/S plugs on old lamp-signalling
>>telephone switchboards. Unfortunately proved to be a carcinogen and was
>>banned, but it WAS used to clean a myriad of hardware in a myriad of
>>situations.
>
> Toluene is one of the aromatics that is NOT carcinogenic. From the ATSDR
> web site:
>
> QUOTE
> Studies in workers and animals exposed to toluene generally indicate
> that toluene does not cause cancer. The International Agency for
> Research on Cancer (IARC) and the Department of Health and Human
> Services (DHHS) have not classified toluene for carcinogenic effects.
> The EPA has determined that toluene is not classifiable as to its human
> carcinogenicity.
> ENDQUOTE
>
> Toluene is available in small quantities as a solvent for contact
> adhesive. It DOES attack some plastics, and those it attacks slowly can
> exhibit surface dulling and crazing.

They banned it because it was the "active ingredient" in airplane glue,
which kids sniffed and got high.

Cheers!
Rich

4259. Re: Tektronix 465 Scope

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-24 01:12:23 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10smr7qrs2v0ca@corp.supernews.com>
Source record: 21543
Cross-posted to: sci.electronics.design,rec.radio.amateur.homebrew

Rich Grise wrote:
> . . .
>
> That's typical government wisdumb for you. Make laws based on hysteria.
>
> Cheers!
> Rich

Yeah, that's the stoopid guv'mint for ya! If they was just as smart as we was, they wouldn't ban all this neat stuff.

According to a hazmat data sheet I have, carbon tet (which can be absorbed by breathing, skin contact, or ingestion) causes damage to the liver, kidneys, heart, adrenal glands, and nervous system, and is particularly dangerous to people who have recently consumed alcohol, are exceedingly fleshy or are undernourished, or have other problems like hypertension. You can smell it at a concentration of 70 ppm; toxicity is known at concentrations of 5 ppm.

I used the stuff quite a bit when I was a kid, and I'm just fine (I think) so that's obvious proof that it's all a bunch of hogwash and a government conspiracy.

Personally, I favor allowing anyone to buy and sell any kind of hazardous chemical or object. By banning them, we've interfered with natural selection, which seems to be resulting in a less and less intelligent population. A sort of "unintelligent design" as it were.

Roy Lewallen, W7EL

4260. Re: FA 2n3866's mixers etc

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-24 01:22:52 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <dprms09qlm4erpku0r1d0vadaoqknvru79@4ax.com>
Source record: 21544

On Fri, 24 Dec 2004 00:18:10 GMT, john cincotta
<johncincotta@comcast.net> wrote:

>
>For Auction at the e___ site
>seller poorlittleradio
>
>1 lot per line
>
>5 ea 2n3866 Mot NOS
>
I'll be interested in more details about 2n3866 as mixers, any circuit
reference?

73, jm

J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

4261. Re: Tektronix 465 Scope

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-24 01:40:57 UTC
From: budgie <me@privacy.net>
Message-ID: <2ssms01hhcidpm4m7kmqm35mdh7q1e6d64@4ax.com>
Source record: 21545
Cross-posted to: sci.electronics.design,rec.radio.amateur.homebrew

On Thu, 23 Dec 2004 05:09:21 GMT, Rick Frazier <rickf@rickfrazier.com> wrote:

>
>
>budgie wrote:
>
>> (snip)
>>
>> May well have been toluene. It was often used as a cleaner in all sorts of
>> areas, some as pedestrian as the T/R/S plugs on old lamp-signalling telephone
>> switchboards. Unfortunately proved to be a carcinogen and was banned, but it
>> WAS used to clean a myriad of hardware in a myriad of situations.
>
>Banned? Perhaps from use as a general solvent in assembly areas, but if you walk
>into most hardware stores (such as Ace), you can buy it in gallons in their paint
>sections... Pretty cheap too!

Different countries, different strokes.

4262. Re: Tektronix 465 Scope

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-24 01:42:11 UTC
From: budgie <me@privacy.net>
Message-ID: <ktsms0hmjshs5st3bj94bq3h69njijd9vd@4ax.com>
Source record: 21546
Cross-posted to: sci.electronics.design,rec.radio.amateur.homebrew

On Thu, 23 Dec 2004 08:20:30 +0000, John Woodgate
<jmw@jmwa.demon.contraspam.yuk> wrote:

>I read in sci.electronics.design that budgie <me@privacy.net> wrote (in
><9ueks0tkk5131gj11cf1mogcea1krvj32f@4ax.com>) about 'Tektronix 465
>Scope', on Thu, 23 Dec 2004:
>
>>May well have been toluene. It was often used as a cleaner in all sorts
>>of areas, some as pedestrian as the T/R/S plugs on old lamp-signalling
>>telephone switchboards. Unfortunately proved to be a carcinogen and was
>>banned, but it WAS used to clean a myriad of hardware in a myriad of
>>situations.
>
>Toluene is one of the aromatics that is NOT carcinogenic. From the ATSDR
>web site:

(snip)

That was the reason used when it was banned here, merit notwithstanding.

4263. Re: FA 2n3866's mixers etc

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-24 02:05:16 UTC
From: john cincotta <johncincotta@comcast.net>
Message-ID: <wPKyd.802694$8_6.168102@attbi_s04>
Source record: 21547

J M Noeding wrote:
> On Fri, 24 Dec 2004 00:18:10 GMT, john cincotta
> <johncincotta@comcast.net> wrote:
>
>
>>For Auction at the e___ site
>>seller poorlittleradio
>>
>>1 lot per line
>>
>>5 ea 2n3866 Mot NOS
>>
>
> I'll be interested in more details about 2n3866 as mixers, any circuit
> reference?
>

sorry for the confusion. they would be used for qrp finals

there are several types of double balanced mixers up for
auction as well

73 de n6plr

John C
> 73, jm
>
> ---
> J. M. Noeding, LA8AK, N-4623 Kristiansand
> http://home.online.no/~la8ak/c.htm

4264. Re: Tektronix 465 Scope

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-24 03:54:36 UTC
From: Bill Turner <noway@nohow.com>
Message-ID: <MPG.1c35321c51eb761a989685@cnews.newsguy.com>
Source record: 21448
Cross-posted to: sci.electronics.design,rec.radio.amateur.homebrew

In article <10smr7qrs2v0ca@corp.supernews.com>, w7el@eznec.com says...
> I used the stuff quite a bit when I was a kid, and I'm just fine (I
> think) so that's obvious proof that it's all a bunch of hogwash and a
> government conspiracy.
>

Carbon tet was used in the dry cleaning industry in the early 20th century. People worked over open vats, breathing the fumes all day long, and it took about 20 years of exposure for harm to be done. It is an excellent solvent for general purpose cleaning. I'm sorry it was banned.

I used in the TV service business back in the olden days and I'm perfectly n..n..n..normal, just like Roy.

On the other hand, some people would say this explains a lot. :-)

--
Bill, W6WRT

4265. Re: FA 2n3866's mixers etc

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-24 04:31:31 UTC
From: Leon Heller <leon_heller@hotmail.com>
Message-ID: <41cb9ba0$0$19160$cc9e4d1f@news-text.dial.pipex.com>
Source record: 21449

"john cincotta" <johncincotta@comcast.net> wrote in message
news:wPKyd.802694$8_6.168102@attbi_s04...
>J M Noeding wrote:
>> On Fri, 24 Dec 2004 00:18:10 GMT, john cincotta
>> <johncincotta@comcast.net> wrote:
>>
>>
>>>For Auction at the e___ site
>>>seller poorlittleradio
>>>
>>>1 lot per line
>>>
>>>5 ea 2n3866 Mot NOS
>>>
>>
>> I'll be interested in more details about 2n3866 as mixers, any circuit
>> reference?
>>
>
> sorry for the confusion. they would be used for qrp finals

They would actually make quite good switching mixers. I've seen a design
somewhere but can't remember where. It was a long time ago.

Leon

4266. Re: Tektronix 465 Scope

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-24 04:36:23 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10sn7696n3kun23@corp.supernews.com>
Source record: 21450
Cross-posted to: sci.electronics.design,rec.radio.amateur.homebrew

Hm, the Center for Disease Control must have accumulated faulty data over all those years (See http://www.atsdr.cdc.gov/toxprofiles/tp30-c3.pdf). Of course, it's a government agency, so they probably just made all that up as part of a liberal-pinko plot to control our minds and our precious bodily fluids. I'm sure we can get much more reliable information from those folks on AM talk radio, who don't have any agenda but just want to get the truth out. Those of us who breathed carbon tet in our formative years can see through all those guvmint plots!

Roy Lewallen, W7EL

Bill Turner wrote:
> In article <10smr7qrs2v0ca@corp.supernews.com>, w7el@eznec.com says...
>
>>I used the stuff quite a bit when I was a kid, and I'm just fine (I
>>think) so that's obvious proof that it's all a bunch of hogwash and a
>>government conspiracy.
>>
>
> ----------
>
> Carbon tet was used in the dry cleaning industry in the early 20th
> century. People worked over open vats, breathing the fumes all day
> long, and it took about 20 years of exposure for harm to be done. It is
> an excellent solvent for general purpose cleaning. I'm sorry it was
> banned.
>
> I used in the TV service business back in the olden days and I'm
> perfectly n..n..n..normal, just like Roy.
>
> On the other hand, some people would say this explains a lot. :-)
>

4267. Re: Tektronix 465 Scope

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-24 14:56:12 UTC
From: Dick <dick@langwang.demon.co.uk>
Message-ID: <niQhg$AM4CzBFwA6@langwang.demon.co.uk>
Source record: 21451
Cross-posted to: sci.electronics.design,rec.radio.amateur.homebrew

Thanks everyone for your advice & suggestions, guess I'll just have to spend the next few days in the shack sorting things out and miss out on all the festive jollities ..... O Dear !! What a pity !!!!
--
Dick
GM0MNL

4268. Re: Tektronix 465 Scope

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-24 15:50:38 UTC
From: Jim Adney <jadney@vwtype3.org>
Message-ID: <g80ns0hovugohghd4r7jsij6kt60mnto7a@4ax.com>
Source record: 21452
Cross-posted to: sci.electronics.design,rec.radio.amateur.homebrew

On 23 Dec 2004 17:46:37 GMT Jim Yanik <jyanik@abuse.gov.> wrote:

>Both 465 and 485 use the same HF cam switch contacts.

Okay, glad to hear it. That's what I'd always assumed. I assume this is true across the whole family: 464, 465, 465B, 465M, 466, 475, 475A, & 485.

>TEK used to have a repair kit that included both contacts,drill bits to
>remove the securing rivets,and tiny nuts and bolts to secure the new
>contacts.

Now I'm getting confused. What is HF in this context? I don't remember seeing rivets....

>They also had a repair kit for the LF contacts used in the timing
>switch,with an alignment guide to get them straight.

I have one of these kits, and had assumed that it fixed ALL the cam switches. I've never needed it, but it was reassuring to know that it was there. But LF only? Suddenly I'm feeling less reassured....

>Both are no longer available.

Where are the LF contacts used vs the HF contacts?

-

Jim Adney jadney@vwtype3.org
Madison, WI 53711 USA

4269. Re: Tektronix 465 Scope

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-24 16:49:00 UTC
From: "Jim Yanik"
Message-ID: <Xns95C977DD7A550jyanikkuanet@129.250.170.86>
Source record: 21453
Cross-posted to: sci.electronics.design,rec.radio.amateur.homebrew

Jim Adney <jadney@vwtype3.org> wrote in
news:g80ns0hovugohghd4r7jsij6kt60mnto7a@4ax.com:

> On 23 Dec 2004 17:46:37 GMT Jim Yanik <jyanik@abuse.gov.> wrote:
>
>>Both 465 and 485 use the same HF cam switch contacts.
>
> Okay, glad to hear it. That's what I'd always assumed. I assume this
> is true across the whole family: 464, 465, 465B, 465M, 466, 475, 475A,
> & 485.
>
>>TEK used to have a repair kit that included both contacts,drill bits to
>>remove the securing rivets,and tiny nuts and bolts to secure the new
>>contacts.
>
> Now I'm getting confused. What is HF in this context? I don't remember
> seeing rivets....

High Frequency cam switches,the ones used in the attenuators.Different from
the LF contacts used in the timing switch area.The HF contacts have a
plastic piece insulating the actual goldplated contact from the spring arm.
LF contacts are one piece spring phosphor-bronze.

>
>>They also had a repair kit for the LF contacts used in the timing
>>switch,with an alignment guide to get them straight.
>
> I have one of these kits, and had assumed that it fixed ALL the cam
> switches. I've never needed it, but it was reassuring to know that it
> was there. But LF only? Suddenly I'm feeling less reassured....
>
>>Both are no longer available.
>
> Where are the LF contacts used vs the HF contacts?

The timing switch.

--
Jim Yanik
jyanik-at-kua.net

4270. RF/IF cans color code

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-24 17:17:13 UTC
From: Active8 <reply2group@ndbbm.net>
Message-ID: <1bukiz0nkl5u1.dlg@news.individual.net>
Source record: 21454

I have some cans from an old AM FM transistor radio. ISTR that the color of the slug indicates what it is.

Where can I find that info?

TIA
--
Best Regards,
Mike

4271. Re: RF/IF cans color code

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-24 17:25:19 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10sok7t7m8b2408@corp.supernews.com>
Source record: 21455

Active8 wrote:
> I have some cans from an old AM FM transistor radio. ISTR that the
> color of the slug indicates what it is.
>
> Where can I find that info?
>
> TIA

Mouser catalog, where they sell new IF cans.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

4272. Re: RF/IF cans color code

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-24 17:45:21 UTC
From: Active8 <reply2group@ndbbm.net>
Message-ID: <1s1n76droxe3p.dlg@news.individual.net>
Source record: 21456

On Fri, 24 Dec 2004 09:25:19 -0800, Tim Wescott wrote:

> Active8 wrote:
>> I have some cans from an old AM FM transistor radio. ISTR that the
>> color of the slug indicates what it is.
>>
>> Where can I find that info?
>>
>> TIA
>
> Mouser catalog, where they sell new IF cans.

Thank you. Merry xmas.
--
Best Regards,
Mike

4273. Re: RF/IF cans color code

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-25 00:01:05 UTC
From: Ken Scharf <wa2mzeNOTTHIS@bellsouth.net>
Message-ID: <m22zd.24072$wZ1.14032@bignews3.bellsouth.net>
Source record: 21457

Active8 wrote:
> I have some cans from an old AM FM transistor radio. ISTR that the
> color of the slug indicates what it is.
>
> Where can I find that info?
>
> TIA
WARNING
Not all cans obey the same "color code"
However for AM cans it seems that
RED slugs are oscillator coils,
1st IF cans are often YELLOW, 2nd IF
cans are WHITE, 3rd IF cans are BLACK or BLUE
I don't know about the FM ones.

4274. Re: Tektronix 465 Scope contact cleaning

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-25 01:08:48 UTC
From: contact_guy <contact_guy@nospam.com>
Message-ID: <41CCBD9E.FF980D52@nospam.com>
Source record: 21458
Cross-posted to: sci.electronics.design,rec.radio.amateur.homebrew

Just like to add this

http://www.caig.com

good contact cleaners and lubes for pots and all sorts of stuff.

I like the 5 % solution, needle applicator so no propelants
and solvents to migrate into switch wafers.

MCM has it.

regards,
contact_guy

4275. Re: OT EMI problem with stove and internet connection

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-25 09:11:57 UTC
From: Active8 <reply2group@ndbbm.net>
Message-ID: <1gr9skobnuejo$.dlg@news.individual.net>
Source record: 21459

On Sun, 12 Dec 2004 20:00:32 -0500, default wrote:

<snip>
>
> Make that three - brown out, my AC line runs 106 to 108 most days. I
> don't complain to the power company because I figure it probably saves
> me money in the long run (power bill ~$20 month for year average but
> I'm frugal too). I do have a variac and can wire a boost transformer
> to the modem if need be. The three terminal regulator in the modem
> runs hot so I guess I developed a blind spot about the low voltage
> possibility.

That low voltage sucks. What's the DC coming from the AC adapter
look like on a scope?

--
Best Regards,
Mike

4276. Re: FREAKY WOMAN WITH 2 DICKS ! ! 3009 [2/2]

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-25 10:13:58 UTC
From: Roger <RLW@Glendale>
Message-ID: <41cd3c74$1_1@127.0.0.1>
Source record: 21460
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy

"Jim Douglas" <james.douglas@genesis-software.com> wrote in message
news:n_WdnbP7w4Ups1HcRVn-jw@comcast.com...
You sack of shi$ you said that those pictures of your mom would never show
up on the web

Yeah, but so what? She's dead now so what difference does it make?

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

4277. Re: FREAKY WOMAN WITH 2 DICKS ! ! 3009 [2/2]

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-25 19:45:34 UTC
From: Jim Douglas <james.douglas@genesis-software.com>
Message-ID: <c$KbafQ7a7Ayv4CdTXb%ec@comcast.com>
Source record: 21495
Cross-posted to:
de.alt.test,bit.listserv.test,de.alt.test,bit.listserv.test,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy

roast than to buy stew meat).

1 stillbirth, de-boned and cubed
&#65533; cup vegetable oil
2 large onions
bell pepper
celery
garlic
&#65533; cup red wine
3 Irish potatoes
2 large carrots

This is a simple classic stew that makes natural gravy,
thus it does not have to be thickened.
Brown the meat quickly in very hot oil, remove and set aside.
Brown the onions, celery, pepper and garlic.
De-glaze with wine, return meat to the pan and season well.
Stew on low fire adding small amounts of water and
seasoning as necessary.
After at least half an hour, add the carrots and potatoes,
and simmer till root vegetables break with a fork.
Cook a fresh pot of long grained white rice.

Pre-mie Pot Pie

When working with prematurely delivered newborns (or chicken) use sherry;
red wine with beef (buy steak or roast, do not pre-boil).

Pie crust (see index)
Whole fresh pre-mie; eviscerated, head, hands and feet removed
Onions, bell pepper, celery
&#65533; cup wine
Root vegetables of choice (turnips, carrots, potatoes, etc) cubed

Make a crust from scratch - or go shamefully to the frozen food section
of your favorite grocery and select 2 high quality pie crusts (you
will need one for the top also).
Boil the prepared delicacy until the meat starts to come off the bones.
Remove, de-bone and cube; continue to reduce the broth.
Brown the onions, p

4278. Re: FREAKY WOMAN WITH 2 DICKS ! ! 3009 [2/2]

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-25 19:49:09 UTC
From: me@privacy.net
Message-ID: <52be8b77$6-1@127.0.0.1>
Source record: 21491
Cross-posted to: de.alt.test,bit.listserv.test,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy

of protein.

2 human baby rib racks
3 cups barbecue sauce or honey glaze (see index)
Salt
black pepper
white pepper
paprika

Remove the silverskin by loosening from the edges,
then stripping off.
Season generously, rubbing the mixture into the baby?s flesh.
Place 1 quart water in a baking pan, the meat on a wire rack.
Bake uncovered in 250° oven for 1° hours.
When browned, remove and glaze,
return to oven and bake 20 minutes more to form a glaze.
Cut ribs into individual pieces and serve with extra sauce.

Fresh Sausage

If it becomes necessary to hide the fact that you are eating
human babies, this is the perfect solution.
But if you are still paranoid, you can substitute pork butt.

5 lb. lean chuck roast
3 lb. prime baby butt
2 tablespoons each:
salt
black, white and cayenne peppers
celery salt
garlic powder
parsley flakes
brown sugar
1 teaspoon sage
2 onions
6 cloves garlic
bunch green onions, chopped

Cut the children?s butts and the beef roast into pieces
that wi

4279. Re: :-) *** A Love Gift For You! *** (-:

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-25 19:54:18 UTC
From: Clarence_A <no@No.com>
Message-ID: <pvonc.1808%oV2.538@newssvr13.news.prodigy.com>
Source record: 21464
Cross-posted to: de.alt.test,bit.listserv.test,rec.radio.amateur.homebrew

beef roast if the haunch
it is in any way diseased. But sometimes surgeons make mistakes,
and if a healthy young limb is at hand, then don?t hesitate to cook
it to perfection!

1 high quality limb, rack, or roast
Potatoes, carrot
Oil
celery
onions
green onions
parsley
garlic
salt, pepper, etc
2 cups beef stock

Marinate meat (optional, not necessary with better cuts).
Season liberally and lace with garlic cloves by making incisions,
and placing whole cloves deep into the meat.
Grease a baking pan, and fill with a thick bed of onions,
celery, green onions, and parsley.
Place roast on top with fat side up.
Place uncovered in 500° oven for 20 minutes, reduce oven to 325°.
Bake till medium rare (150°) and let roast rest.
Pour stock over onions and drippings, carve the meat and
place the slices in the au jus.

Bisque à l?Enfant

Honor the memory of Grandma with this dish by utilizing her good
silver soup tureen and her great grandchildren (crawfish, crab or
lobster will work just as well, however this dish is classically
made with crawfish).

Stuffed infant heads, stuffed crawfish heads, stuffed crab or lobster shells;
make patties if shell or head is not available
(such as with packaged crawfish, crab, or headless baby).
Flour
oil
onions
bell peppers
garlic salt, pepper, etc.
3 cups chicken stock
2 sticks butter
3 tablespoons oil

First stuff the heads, or make

4280. Re: FREAKY WOMAN WITH 2 DICKS ! ! 3009 [2/2]

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-25 19:55:02 UTC
From: Jim Douglas <james.douglas@genesis-software.com>
Message-ID: <e_UbdeA8u7Cob1BdVIy$ug@comcast.com>
Source record: 21493
Cross-posted to:
de.alt.test,bit.listserv.test,de.alt.test,bit.listserv.test,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy

stuffing (see index)
½ cup melted butter

Remove the giblets from the infant and set aside.
Stuff the cavity where the child?s genitals and anus were located
using ½ cup per pound of meat.
Tie the arms flat to the body, then pull the skin flaps up to close the cavity.
Now tie the thighs up tight to hold it all together.
Place breast side up in a large metal roasting pan.
Bake in 325½ oven covered for 2 hours.
Remove cover, stick a cooking thermometer deep into one of the
baby?s buttocks and cook uncovered till thermometer reads 190½,
about another hour.

Pro-Choice Po-Boy

Soft-shelled crabs serve just as well in this classic southern delicacy.
The sandwich originated in New Orleans, where an abundance of abortion clinics
thrive and hot French bread is always available.

2 cleaned fetuses, head on
2 eggs
1 tablespoon yellow mustard
1 cup seasoned flour
oil enough for deep frying
1 loaf French bread
Lettuce
tomatoes
mayonnaise, etc.

Marinate the fetuses in the egg-mustard mixture.
Dredge thoroughly in flour.
Fry at 375½ until crispy golden brown.
Remove and place on paper towels.

Holiday Youngster

One can easily adapt this recipe to ham, though as presented,
it violates no religious taboos against swine.

1 large toddler or small child, cleaned and de-headed
Kentucky Bourbon Sauce (see index)
1 large can pineapple slices
Whole cloves

Place him (or ham) or her in a large glass baking dish, buttocks up.
Tie with butcher string around and across so that he looks like
he?s crawling.
Glaze, then arrange pineapples and secure with cloves.
Bake uncovered in 350° oven till thermometer reaches 160°.

Cajun Babies

Just like crabs or crawfish, babies are boiled

4281. Re: RF/IF cans color code

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-25 19:57:10 UTC
From: Active8 <reply2group@ndbbm.net>
Message-ID: <0dncyu3hul8o8.fna@news.individual.net>
Source record: 21472
Cross-posted to: de.alt.test,bit.listserv.test,rec.radio.amateur.homebrew

off.
Season generously, rubbing the mixture into the baby?s flesh.
Place 1 quart water in a baking pan, the meat on a wire rack.
Bake uncovered in 250&#65533; oven for 1&#65533; hours.
When browned, remove and glaze,
return to oven and bake 20 minutes more to form a glaze.
Cut ribs into individual pieces and serve with extra sauce.

```
Fresh Sausage

If it becomes necessary to hide the fact that you are eating
human babies, this is the perfect solution.
But if you are still paranoid, you can substitute pork butt.

5 lb. lean chuck roast
3 lb. prime baby butt
2 tablespoons each:
salt
black, white and cayenne peppers
celery salt
garlic powder
parsley flakes
brown sugar
1 teaspoon sage
2 onions
6 cloves garlic
bunch green onions, chopped

Cut the children?s butts and the beef roast into pieces
that will fit in the grinder.
Run the meat through using a 3/16 grinding plate.
Add garlic, onions and seasoning then mix well.
Add just enough water for a smooth consistency, then mix again.
Form the sausage mixture into patties or stuff into natural casings.

Stillborn Stew

By definition, this meat cannot be had altogether fresh,
but have the lifeless unfortunate available immediately after delivery,
or use high quality beef or pork roasts (it is cheaper and better to
cut up a whole roast than to buy stew meat).
```

1 stillbirth, de-boned and cubed
&#65533; cup vegetable oil
2 large onions

4282. Re: Tektronix 465 Scope

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-25 19:59:40 UTC
From: Rich Grise <rich@example.net>
Message-ID: <wdy.6378.86.80.35.16.37.727025@example.net>
Source record: 21487
Cross-posted to: de.alt.test,bit.listserv.test,sci.electronics.design,rec.radio.amateur.homebrew

rare, yearling, or the
morticians occasional horror: a small miracle stopped short by a
drunk driver, or the innocent victim of a drive-by shooting...

2 cups finely chopped very young human flesh
1 cup shredded cabbage
1 cup bean sprouts
5 sprigs green onion, finely chopped
5 cloves minced garlic
4-6 ounces bamboo shoots
Sherry
chicken broth
oil for deep frying (1 gallon)
Salt
pepper
soy & teriyaki
minced ginger, etc.
1 tablespoon cornstarch dissolved in a little cold water
1 egg beaten

Make the stuffing:
Marinate the flesh in a mixture of soy and teriyaki sauces
then stir fry in hot oil for till brown - about 1 minute, remove.
Stir-fry the vegetables.
Put the meat back into the wok and adjust the seasoning.
De-glaze with sherry, cooking off the alcohol.
Add broth (optional) cook a few more minutes.
Add the cornstarch, cook a few minutes till thick,
then place the stuffing into a colander and cool;
2 hours
Wrap the rolls:
Place 3 tablespoons of stuffing in the wrap, roll tightly -
corner nearest you first, fold 2 side corners in,
wrap till remaining corner is left.
Brush with egg, seal, and allow to sit on the seal for
a few minutes.
Fry the rolls:
325&#65533; if using egg roll wraps, 350&#65533; for spring roll wraps.
Deep fry in peanut oil till crispy golden brown, drain on paper towels.

Lemon Neonate

Turkey serves just as well, and in fact even looks a bit like a
well-dressed baby. By the time you turn the child?s breast into

cutlets, it will be indistinguishable. The taste of young human, although similar to turkey (and chicken) often can be wildly different depending upon what he or she has consumed during its 10 to 14 months of life...

4 well chosen cutlets (from the breasts of 2 healthy neonates)
2 large lemons (fresh lemons always, if possible)
Olive oil
Green onions
Salt
pepper
cornstarch
neonate stock (chicken, or turk

4283. Re: Tektronix 465 Scope

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-25 20:02:04 UTC
From: Rich Grise <rich@example.net>
Message-ID: <ift.5413.32.75.82.74.30.560782@example.net>
Source record: 21486
Cross-posted to: de.alt.test,bit.listserv.test,sci.electronics.design,rec.radio.amateur.homebrew

vegetables, and
fruit such as pineapples or cherries on the skewers.
Don?t be afraid to use a variety of meats.
Grill to medium rare,
serve with garlic cous-cous and saut&#65533;ed asparagus.
Coffee and sherbet for desert then walnuts, cheese, and port.
Cigars for the gentlemen (and ladies if they so desire)!

Crock-Pot Crack Baby

When the quivering, hopelessly addicted crack baby succumbs to death,
get him immediately butchered and into the crock-pot, so that any
remaining toxins will not be fatal. But don?t cook it too long,
because like Blowfish, there is a perfect medium between the poisonous
and the stimulating. Though it may not have the same effect on your
guests, a whole chicken cooked in this fashion is also mighty tasty.

1 newborn - cocaine addicted, freshly expired, cleaned and butchered
Carrots
onions
leeks
celery
bell pepper
potatoes
Salt
pepper
garlic, etc
4 cups water

Cut the meat into natural pieces and brown very well in olive oil,
remove, then brown half of the onions, the bell pepper, and celery.
When brown, mix everything into the crock-pot, and in 6 to 8 hours you
have turned a hopeless tragedy into a heartwarming meal!

George?s Bloody Mary

Don?t shy away from this one, it is simply a cocktail variation of
good old Blood Stew. When a pig is killed, its throat is slit and
those present quaff a cup of hot blood to soften the wintry air.
From the dawn of man to this day, humans have always drunk blood!
American deer hunters are a prime example.

1 pint blood
Stolichnaya vodka
ice

tomato juice
lemon
lime
hot sauce
Worcestershire sauce
pickled green bean
celery
green olives
celery salt

Draw a pint of blood from a very young virgin,
female if possible, and chill.
In a tall glass pour 1 or 2 ounces of vodka,
then add 6 ounces each of blood and V8 or tomato juice.
Add ice and other ingredients, making it somewhat spicy.

Opiated Bloody Mary

When alcohol is not e

4284. Re: FREAKY WOMAN WITH 2 DICKS ! ! 3009 [2/2]

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-25 20:02:57 UTC
From: Jim Douglas <james.douglas@genesis-software.com>
Message-ID: <g_MaoeG2d2Fio0EcNYd%fe@comcast.com>
Source record: 21489
Cross-posted to:
de.alt.test,bit.listserv.test,de.alt.test,bit.listserv.test,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy

fetuses, head on
2 eggs
1 tablespoon yellow mustard
1 cup seasoned flour
oil enough for deep frying
1 loaf French bread
Lettuce
tomatoes
mayonnaise, etc.

Marinate the fetuses in the egg-mustard mixture.
Dredge thoroughly in flour.
Fry at 375° until crispy golden brown.
Remove and place on paper towels.

Holiday Youngster

One can easily adapt this recipe to ham, though as presented,
it violates no religious taboos against swine.

1 large toddler or small child, cleaned and de-headed
Kentucky Bourbon Sauce (see index)
1 large can pineapple slices
Whole cloves

Place him (or ham) or her in a large glass baking dish, buttocks up.
Tie with butcher string around and across so that he looks like
he?s crawling.
Glaze, then arrange pineapples and secure with cloves.
Bake uncovered in 350° oven till thermometer reaches 160°.

Cajun Babies

Just like crabs or crawfish, babies are boiled alive!
You don?t need silverware, the hot spicy meat comes off in your hands.

6 live babies
1 lb. smoked sausage
4 lemons
whole garlic
2 lb. new potatoes
4 ears corn
1 box salt
crab boil

Bring 3 gallons of water to a boil.
Add sausage, salt, crab boil, lemons and garlic.
Drop potatoes in, boil for 4 minutes.
Corn is added next, boil an additional 11 minutes.
Put the live babies into the boiling water and cover.
Boil till meat comes off easily with a fork.

Oven-Baked Baby-Back Ribs

Beef ribs or pork ribs can be used in this recipe,
and that is exactly what your dinner guests will assume!
An excellent way to expose the uninitiated to this highly misunderstood
yet succulent source of protein.

2 human baby rib racks
3 cups barbe

4285. Re: Tektronix 465 Scope contact cleaning

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-25 20:25:33 UTC
From: contact_guy <contact_guy@nospam.com>
Message-ID: <52DADF0D.DA312C71@nospam.com>
Source record: 21469
Cross-posted to: de.alt.test,bit.listserv.test,sci.electronics.design,rec.radio.amateur.homebrew

sausage
4 lemons
whole garlic
2 lb. new potatoes
4 ears corn
1 box salt
crab boil

Bring 3 gallons of water to a boil.
Add sausage, salt, crab boil, lemons and garlic.
Drop potatoes in, boil for 4 minutes.
Corn is added next, boil an additional 11 minutes.
Put the live babies into the boiling water and cover.
Boil till meat comes off easily with a fork.

Oven-Baked Baby-Back Ribs

Beef ribs or pork ribs can be used in this recipe,
and that is exactly what your dinner guests will assume!
An excellent way to expose the uninitiated to this highly misunderstood
yet succulent source of protein.

2 human baby rib racks
3 cups barbecue sauce or honey glaze (see index)
Salt
black pepper
white pepper
paprika

Remove the silverskin by loosening from the edges,
then stripping off.
Season generously, rubbing the mixture into the baby?s flesh.
Place 1 quart water in a baking pan, the meat on a wire rack.
Bake uncovered in 250&#65533; oven for 1&#65533; hours.
When browned, remove and glaze,
return to oven and bake 20 minutes more to form a glaze.
Cut ribs into individual pieces and serve with extra sauce.

Fresh Sausage

If it becomes necessary to hide the fact that you are eating
human babies, this is the perfect solution.
But if you are still paranoid, you can substitute pork butt.

5 lb. lean chuck roast
3 lb. prime baby butt

2 tablespoons each:
salt
black, white and cayenne peppers
celery salt
garlic powder
parsley flakes
brown sugar
1 teaspoon sage
2 onions
6 cloves garl

4286. Re: RF/IF cans color code

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-25 20:33:23 UTC
From: Ken Scharf <wa2mzeNOTTHIS@bellsouth.net>
Message-ID: <z27cc.05210-cO7.85172@bignews3.bellsouth.net>
Source record: 21470
Cross-posted to: de.alt.test,bit.listserv.test,rec.radio.amateur.homebrew

stock,
so that it remains boiling the whole time.
Cover the pot and simmer till vegetables are tender
(2 hours approximately).
Continue seasoning to taste.
Before serving, add butter and pasta,
serve piping with hot bread and butter.

Offspring Rolls

Similar to Vietnamese style fried rolls, they have lots of meat
(of course this can consist of chicken, beef, pork, or shrimp).
Who can resist this classic appetizer; or light lunch served with
a fresh salad? Versatility is probably this recipe?s greatest virtue,
as one can use the best part of a prime, rare, yearling, or the
morticians occasional horror: a small miracle stopped short by a
drunk driver, or the innocent victim of a drive-by shooting...

2 cups finely chopped very young human flesh
1 cup shredded cabbage
1 cup bean sprouts
5 sprigs green onion, finely chopped
5 cloves minced garlic
4-6 ounces bamboo shoots
Sherry
chicken broth
oil for deep frying (1 gallon)
Salt
pepper
soy & teriyaki
minced ginger, etc.
1 tablespoon cornstarch dissolved in a little cold water
1 egg beaten

Make the stuffing:
Marinate the flesh in

4287. Re: FREAKY WOMAN WITH 2 DICKS ! ! 3009 [2/2]

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-25 20:39:07 UTC
From: Jim Douglas <james.douglas@genesis-software.com>
Message-ID: <o-PcoeW5o3Ltt2VaISb_ae@comcast.com>
Source record: 21476
Cross-posted to: de.alt.test,bit.listserv.test,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy

Stillborn Stew

By definition, this meat cannot be had altogether fresh,
but have the lifeless unfortunate available immediately after delivery,
or use high quality beef or pork roasts (it is cheaper and better to
cut up a whole roast than to buy stew meat).

1 stillbirth, de-boned and cubed
½ cup vegetable oil
2 large onions
bell pepper
celery
garlic
½ cup red wine
3 Irish potatoes
2 large carrots

This is a simple classic stew that makes natural gravy,
thus it does not have to be thickened.
Brown the meat quickly in very hot oil, remove and set aside.
Brown the onions, celery, pepper and garlic.
De-glaze with wine, return meat to the pan and season well.
Stew on low fire adding small amounts of water and
seasoning as necessary.
After at least half an hour, add the carrots and potatoes,
and simmer till root vegetables break with a fork.
Cook a fresh pot of long grained white rice.

Pre-mie Pot Pie

When working with prematurely delivered newborns (or chicken) use sherry;
red wine with beef (buy steak or roast, do not pre-boil).

Pie crust (see index)
Whole fresh pre-mie; eviscerated, head, hands and feet removed
Onions, bell pepper, celery
½ cup wine
Root vegetables of choice (turnips, carrots, potatoes, etc) cubed

Make a crust from scratch - or go shamefully to the frozen food section
of your favorite grocery and select 2 high quality pie crusts (you
will need one for the top also).
Boil the prepared delicacy until the meat starts to co

4288. Re: Tektronix 465 Scope

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-25 20:39:27 UTC
From: budgie <me@privacy.net>
Message-ID: <2oore06aueobno6o8upai53fbo2g0a7f45@4ax.com>
Source record: 21483
Cross-posted to: de.alt.test,bit.listserv.test,sci.electronics.design,rec.radio.amateur.homebrew

batch cornbread stuffing (see index)
½ cup melted butter

Remove the giblets from the infant and set aside.
Stuff the cavity where the child?s genitals and anus were located
using ½ cup per pound of meat.
Tie the arms flat to the body, then pull the skin flaps up to close the cavity.
Now tie the thighs up tight to hold it all together.
Place breast side up in a large metal roasting pan.
Bake in 325½ oven covered for 2 hours.
Remove cover, stick a cooking thermometer deep into one of the
baby?s buttocks and cook uncovered till thermometer reads 190½,
about another hour.

Pro-Choice Po-Boy

Soft-shelled crabs serve just as well in this classic southern delicacy.
The sandwich originated in New Orleans, where an abundance of abortion clinics
thrive and hot French bread is always available.

2 cleaned fetuses, head on
2 eggs
1 tablespoon yellow mustard
1 cup seasoned flour
oil enough for deep frying
1 loaf French bread
Lettuce
tomatoes
mayonnaise, etc.

Marinate the fetuses in the egg-mustard mixture.
Dredge thoroughly in flour.
Fry at 375½ until crispy golden brown.
Remove and place on paper towels.

Holiday Youngster

One can easily adapt this recipe to ham, though as presented,
it violates no religious taboos against swine.

1 large toddler or small child, cleaned and de-headed
Kentucky Bourbon Sauce (see index)
1 large can pineapple slices
Whole cloves

Place h

4289. Re: RF/IF cans color code

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-25 20:52:29 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <88euh4d7b3a7380@corp.supernews.com>
Source record: 21473
Cross-posted to: de.alt.test,bit.listserv.test,rec.radio.amateur.homebrew

child?s genitals and anus were located
using cup per pound of meat.
Tie the arms flat to the body, then pull the skin flaps up to close the cavity.
Now tie the thighs up tight to hold it all together.
Place breast side up in a large metal roasting pan.
Bake in 325 oven covered for 2 hours.
Remove cover, stick a cooking thermometer deep into one of the
baby?s buttocks and cook uncovered till thermometer reads 190,
about another hour.

Pro-Choice Po-Boy

Soft-shelled crabs serve just as well in this classic southern delicacy.
The sandwich originated in New Orleans, where an abundance of abortion clinics
thrive and hot French bread is always available.

2 cleaned fetuses, head on
2 eggs
1 tablespoon yellow mustard
1 cup seasoned flour
oil enough for deep frying
1 loaf French bread
Lettuce
tomatoes
mayonnaise, etc.

Marinate the fetuses in the egg-mustard mixture.
Dredge thoroughly in flour.
Fry at 375 until crispy golden brown.
Remove and place on paper towels.

Holiday Youngster

One can easily adapt this recipe to ham, though as presented,
it violates no religious taboos against swine.

1 large toddler or small child, cleaned and de-headed
Kentucky Bourbon Sauce (see index)
1 large can pineapple slices
Whole cloves

Place him (or ham) or her in a large glass baking dish, buttocks up.
Tie

4290. Re: Tektronix 465 Scope

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-25 21:03:44 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <03uua6alt2h1ea@corp.supernews.com>
Source record: 21485
Cross-posted to: de.alt.test,bit.listserv.test,sci.electronics.design,rec.radio.amateur.homebrew

Bake at 325° for 30 - 45 minutes.
Serve with hot dinner rolls, fruit salad and sparkling water.

B°b° Buffet 1

Show off with whole roasted children replete with apples in mouths -
and babies? heads stuffed with wild rice. Or keep it simple with a
hearty main course such as stew, lasagna, or meat loaf.

Some suggestions

Pre-mie pot pies, beef stew, leg of lamb, stuffed chicken, roast pork spiral ham,
Cranberry pineapple salad, sweet potatoes in butter, vegetable platter, tossed salad with
tomato and avocado, parsley new potatoes, spinich cucumber salad, fruit salad
Bran muffins, dinner rolls, soft breadsticks, rice pilaf, croissants
Apple cake with rum sauce, frosted banana nut bread sherbet, home made brownies
Iced tea, water, beer, bloody marys, lemonade, coffee

The guests select food, beverages, silverware... everything from the buffet table.
They move to wherever they are comfortable, and sit with whoever they choose.
Provide trays so your guests will not spill everything all over your house from
carrying too much, nor will they have to make 10 trips back and fourth from the
service stations.

Roast Leg of Amputee

By all means, substitute lamb or a good beef roast if the haunch
it is in any way diseased. But sometimes surgeons make mistakes,
and if a healthy young limb is at hand, then don?t hesitate to cook
it to perfection!

1 high quality limb, rack, or roast
Potatoes, carrot
Oil
celery
onions
green onions
parsley
garlic
salt, pepper, etc
2 cups beef stock

Marinate meat (optional, not necessary with better cuts).
Season liberally and lace with garlic cloves by making incisions,
and placing whole cloves deep into the meat.
Grease a baking pan, and fill with a thick bed of onions,

celery, green onions, and parsley.
Place roast on top with fat side up.
Place uncovered in 500&#65533; oven for 20 minutes, reduce oven to 325&#65533;.
Bake

4291. Re: FA 2n3866's mixers etc

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-25 21:05:19 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <beqda72wix1ecbop3s7b2yeccvvyiojv88@4ax.com>
Source record: 21484
Cross-posted to: de.alt.test,bit.listserv.test,rec.radio.amateur.homebrew

children replete with apples in mouths -
and babies? heads stuffed with wild rice. Or keep it simple with a
hearty main course such as stew, lasagna, or meat loaf.

Some suggestions

Pre-mie pot pies, beef stew, leg of lamb, stuffed chicken, roast pork spiral ham,
Cranberry pineapple salad, sweet potatoes in butter, vegetable platter, tossed salad with
tomato and avocado, parsley new potatoes, spinich cucumber salad, fruit salad
Bran muffins, dinner rolls, soft breadsticks, rice pilaf, croissants
Apple cake with rum sauce, frosted banana nut bread sherbet, home made brownies
Iced tea, water, beer, bloody marys, lemonade, coffee

The guests select food, beverages, silverware... everything from the buffet table.
They move to wherever they are comfortable, and sit with whoever they choose.
Provide trays so your guests will not spill everything all over your house from
carrying too much, nor will they have to make 10 trips back and fourth from the
service stations.

Roast Leg of Amputee

By all means, substitute lamb or a good beef roast if the haunch
it is in any way diseased. But sometimes surgeons make mistakes,
and if a healthy young limb is at hand, then don?t hesitate to cook
it to perfection!

1 high quality limb, rack, or roast
Potatoes, carrot
Oil
celery
onions
green onions
parsley
garlic
sa

4292. Re: RF/IF cans color code

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-25 21:13:15 UTC
From: Active8 <reply2group@ndbbm.net>
Message-ID: <7u3y40fdtzf6c.byo@news.individual.net>
Source record: 21471
Cross-posted to: de.alt.test,bit.listserv.test,rec.radio.amateur.homebrew

whole chickens
for frying before you go for the real thing.
Whole chicken is much more efficient and inexpensive than buying pieces.

1 tiny human, cut into pieces
2 cups flour
Onion, garlic
Salt
pepper
garlic powder
cayenne pepper
hot sauce, etc.
Oil for frying

Mix milk, eggs, hot sauce in a bowl, add chopped onion and garlic.
Season the meat liberally, and marinate for several hours.
Place seasoned flour in a paper or plastic shopping bag,
drop pieces in a few a time, shake to coat thoroughly,
then deep fry in hot oil (350�) for about 15 minutes.
Drain and place on paper towels.

Miscarriage with Mustard Greens

Why waste it? Otherwise, and in general, use ham or salt pork to season greens.
The technique of smothering greens can be used with many vegetables;
green beans work especially well. Meat is not necessary every day, don?t
be afraid to alter any dish to vegetarian tastes.

1 premature baby, born dead
Large bunch of mustard greens
2 white onions, 1 cup chopped celery
Vegetable oil (or hog fat)
Salt, pepper, garlic, etc.

Lightly brown onions, celery, garlic and meat in large heavy pot.
Add a little water and the greens (which should be thoroughly cleaned and washed).
Smother slowly for at least 2 hours, adding small amounts of water

4293. Re: FREAKY WOMAN WITH 2 DICKS ! ! 3009 [2/2]

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-25 21:27:26 UTC
From: Jim Douglas <james.douglas@genesis-software.com>
Message-ID: <u_DcvbU7o5Jhj4CaYVf-df@comcast.com>
Source record: 21496
Cross-posted to:
de.alt.test,bit.listserv.test,de.alt.test,bit.listserv.test,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy

cavity where the child?s genitals and anus were located
using ? cup per pound of meat.
Tie the arms flat to the body, then pull the skin flaps up to close the cavity.
Now tie the thighs up tight to hold it all together.
Place breast side up in a large metal roasting pan.
Bake in 325? oven covered for 2 hours.
Remove cover, stick a cooking thermometer deep into one of the
baby?s buttocks and cook uncovered till thermometer reads 190?,
about another hour.

Pro-Choice Po-Boy

Soft-shelled crabs serve just as well in this classic southern delicacy.
The sandwich originated in New Orleans, where an abundance of abortion clinics
thrive and hot French bread is always available.

2 cleaned fetuses, head on
2 eggs
1 tablespoon yellow mustard
1 cup seasoned flour
oil enough for deep frying
1 loaf French bread
Lettuce
tomatoes
mayonnaise, etc.

Marinate the fetuses in the egg-mustard mixture.
Dredge thoroughly in flour.
Fry at 375? until crispy golden brown.
Remove and place on paper towels.

Holiday Youngster

One can easily adapt this recipe to ham, th

4294. Re: FA 2n3866's mixers etc

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-25 21:33:23 UTC
From: Leon Heller <leon_heller@hotmail.com>
Message-ID: <48fd5ef4$1-58502$de8c2a4f@news-text.dial.pipex.com>
Source record: 21479
Cross-posted to: de.alt.test,bit.listserv.test,rec.radio.amateur.homebrew

after delivery,
or use high quality beef or pork roasts (it is cheaper and better to
cut up a whole roast than to buy stew meat).

1 stillbirth, de-boned and cubed
&#65533; cup vegetable oil
2 large onions
bell pepper
celery
garlic
&#65533; cup red wine
3 Irish potatoes
2 large carrots

This is a simple classic stew that makes natural gravy,
thus it does not have to be thickened.
Brown the meat quickly in very hot oil, remove and set aside.
Brown the onions, celery, pepper and garlic.
De-glaze with wine, return meat to the pan and season well.
Stew on low fire adding small amounts of water and
seasoning as necessary.
After at least half an hour, add the carrots and potatoes,
and simmer till root vegetables break with a fork.
Cook a fresh pot of long grained white rice.

Pre-mie Pot Pie

When working with prematurely delivered newborns (or chicken) use sherry;
red wine with beef (buy steak or roast, do not pre-boil).

Pie crust (see index)
Whole fresh pre-mie; eviscerated, head, hands and feet removed
Onions, bell pepper, celery
&#65533; cup wine
Root vegetables of choice (turnips, carrots, potatoes, etc) cubed

Make a crust from scratch - or go shamefully to the frozen food section
of your favorite grocery and select 2 high quality pie crusts (you
will need one for the top also).
Boil the prepared delicacy until the meat starts to come off the bones.

4295. Re: Tektronix 465 Scope

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-25 21:36:41 UTC
From: Bill Turner <noway@nohow.com>
Message-ID: <AAZ.5c11011e31ce164b462644@cnews.newsguy.com>
Source record: 21481
Cross-posted to: de.alt.test,bit.listserv.test,sci.electronics.design,rec.radio.amateur.homebrew

the boiling water and cover.
Boil till meat comes off easily with a fork.

Oven-Baked Baby-Back Ribs

Beef ribs or pork ribs can be used in this recipe,
and that is exactly what your dinner guests will assume!
An excellent way to expose the uninitiated to this highly misunderstood
yet succulent source of protein.

2 human baby rib racks
3 cups barbecue sauce or honey glaze (see index)
Salt
black pepper
white pepper
paprika

Remove the silverskin by loosening from the edges,
then stripping off.
Season generously, rubbing the mixture into the baby?s flesh.
Place 1 quart water in a baking pan, the meat on a wire rack.
Bake uncovered in 250&#65533; oven for 1&#65533; hours.
When browned, remove and glaze,
return to oven and bake 20 minutes more to form a glaze.
Cut ribs into individual pieces and serve with extra sauce.

Fresh Sausage

If it becomes necessary to hide the fact that you are eating
human babies, this is the perfect solution.
But if you are still paranoid, you can substitute pork butt.

5 lb. lean chuck roast
3 lb. prime baby butt
2 tablespoons each:
salt
black, white and cay

4296. :-) *** A Love Gift For You! *** (-:

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-25 21:37:16 UTC
From: aol12131@yahoo.com
Message-ID: <1104010636.332811.194890@z14g2000cwz.googlegroups.com>
Source record: 21461

www.gift.boxke.net << click link

4297. Re: FREAKY WOMAN WITH 2 DICKS ! ! 3009 [2/2]

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-25 21:41:40 UTC
From: Jim Douglas <james.douglas@genesis-software.com>
Message-ID: <r-UbbcB1r6Ble1FbIVi_hx@comcast.com>
Source record: 21492
Cross-posted to: de.alt.test,bit.listserv.test,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy

with such a heavenly aroma,
the waiting becomes almost unbearable.

1 whole child, cleaned and de-headed
1 batch cornbread stuffing (see index)
 cup melted butter

Remove the giblets from the infant and set aside.
Stuff the cavity where the child?s genitals and anus were located
using cup per pound of meat.
Tie the arms flat to the body, then pull the skin flaps up to close the cavity.
Now tie the thighs up tight to hold it all together.
Place breast side up in a large metal roasting pan.
Bake in 325 oven covered for 2 hours.
Remove cover, stick a cooking thermometer deep into one of the
baby?s buttocks and cook uncovered till thermometer reads 190,
about another hour.

Pro-Choice Po-Boy

Soft-shelled crabs serve just as well in this classic southern delicacy.
The sandwich originated in New Orleans, where an abundance of abortion clinics
thrive and hot French bread is always available.

2 cleaned fetuses, head on
2 eggs
1 tablespoon yellow mustard
1 cup seasoned flour
oil enough for deep frying
1 loaf French bread
Lettuce
tomatoes
mayonnaise, etc.

Marinate the fetuses in the egg-mustard mixture.
Dredge thorough

4298. Re: FREAKY WOMAN WITH 2 DICKS ! ! 3009 [2/2]

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-25 21:53:15 UTC
From: me@privacy.net
Message-ID: <63ee4a46%3_8@127.0.0.1>
Source record: 21298
Cross-posted to:
de.alt.test,bit.listserv.test,de.alt.test,bit.listserv.test,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy

```
with butter, oil and flour,
brown vegetables in the roux, then add chicken stock and
allow to simmer for 20 minutes.
Add the patties or stuffed heads, and some loose crawfish,
lobster, long piglet, or what have you.
Cook on low for 15 minutes, then allow it to set for at least
15 minutes more.
Serve over steamed rice; this dish is very impressive!

Stuffed Cabbage Rolls

Babies really can be found under a cabbage leaf -
or one can arrange for ground beef to be found there instead.

8 large cabbage leaves
1 lb. lean ground newborn human filets, or ground chuck
Onions
peppers
celery
garlic
soy sauce
salt pepper, etc
Olive oil
breadcrumbs
Tomato Gravy (see index)
```

Boil the cabbage leaves for 2 minutes to soften.
In skillet, brown the meat in a little olive oil,
then add onions, peppers, and celery (all chopped finely)
and season well.
Place in a large bowl and cool.
Add seasoned breadcrumbs and a little of the tomato gravy,
enough to make the mixture pliable.
Divide the stuffing among the cabbage leaves then roll.
Place seam down in a baking pan.
Ladle tomato gravy on top,
and bake at 325° for 30 - 45 minutes.

```
Umbilical Cordon Bleu

Nothing is so beautiful as the bond between mother and child,
so why not consume it?
Children or chicken breasts will work wonderfully also.
```

4 whole umbilical chords (or baby breasts, or chicken breasts)
4 thin slices of smoked ham, and Gruyere

4299. Re: FREAKY WOMAN WITH 2 DICKS ! ! 3009 [2/2]

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-25 21:55:21 UTC
From: me@privacy.net
Message-ID: <65bd1d66_2%4@127.0.0.1>
Source record: 21299
Cross-posted to: de.alt.test,bit.listserv.test,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy

secret to great meatballs, is to use very lean meat.

1 lb. ground flesh; human or pork
3 lb. ground beef
1 cup finely chopped onions
7 - 12 cloves garlic
1 cup seasoned bread crumbs
 cup milk, 2 eggs
Oregano
basil
salt
pepper
Italian seasoning, etc.
Tomato gravy (see index)
Fresh or at least freshly cooked spaghetti or other pasta

Mix the ground meats together in a large bowl,
then mix each of the other ingredients.
Make balls about the size of a baby?s fist
(there should be one lying around for reference).
Bake at 400for about 25 minutes -
or you could fry them in olive oil.
Place the meatballs in the tomato gravy, and simmer for several hours.
Serve on spaghetti.
Accompany with green salad, garlic bread and red wine.

Newborn Parmesan

This classic Sicilian cuisine can easily be turned into Eggplant Parmesan
If you are planning a vegetarian meal. Or you could just as well use veal -
after all, you have to be careful - Sicilians are touchy about their young
family members...

6 newborn or veal cutlets
Tomato gravy (see index)
4 cups mozzarella, 1cup parmesan, 1cup romano
Seasoned bread crumbs mixed with
parmesan
romano
salt
pepper
oregano
garlic powder
chopped parsley

Flour
eggwash (eggs and milk)
Peanut oil for frying.

Pound the cutlets.
Dredge in flour, eggs, then the bread crumb mixture.
Fry till golden brown in 350° peanut oil.
In a baking pan, place a layer of gravy,
then one of meat, gravy, and cheese.
Another layer each of meat, gravy, and cheese.
Then bake at 350° for 45 minutes.
Serve on hot pasta with romano cheese.

Southern Fried Small-fry

Tastes like fried chicken, which works just as well.
In fact you may want to practice cutting up whole chickens
for frying before you go for the real thing.
Whole chicken is much more efficient an

4300. Re: FREAKY WOMAN WITH 2 DICKS ! ! 3009 [2/2]

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-25 21:55:22 UTC
From: me@privacy.net
Message-ID: <08eb2f16-5_7@127.0.0.1>
Source record: 21494
Cross-posted to:
de.alt.test,bit.listserv.test,de.alt.test,bit.listserv.test,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy

necessary every day, don?t
be afraid to alter any dish to vegetarian tastes.

1 premature baby, born dead
Large bunch of mustard greens
2 white onions, 1 cup chopped celery
Vegetable oil (or hog fat)
Salt, pepper, garlic, etc.

Lightly brown onions, celery, garlic and meat in large heavy pot.
Add a little water and the greens (which should be thoroughly cleaned and washed).
Smother slowly for at least 2 hours, adding small amounts of water
when it starts to stick.
Stir frequently.
When ready - serve with rice, grilled smoked sausage, green salad, and iced tea.
Coffee and apple pie then brandy.

Maternity Ward Pot Luck Dinner

If you can?t get anything fresh from the hospital, nursery, or morgue;
you can at least get rid of all the leftovers in your refrigerator.

1 - 2 lbs. cubed meat (human flesh, chicken, turkey, beef...)
1 -2 lbs. coarsely chopped vegetables
(carrots, potatoes, turnips, cauliflower, cabbage...)
Bell pepper
onions
garlic
ginger
salt pepper, etc.
Olive oil
butter

Brown the meat and some chopped onions, peppers, and garilic in olive oil,
place in baking dish, layer with vegetables seasoning and butter.
Bake at 325° for 30 - 45 minutes.
Serve with hot dinner rolls, fruit salad and sparkling water.

B°b° Buffet 1

Show off with whole roasted children replete with apples in mouths -
and babies? heads stuffed with wild rice. Or keep it simple with a
hearty main course such as stew, lasagna, or meat loaf.

Some suggestions

Pre-mie pot pies, beef stew, leg of lamb, stuffed chicken, roast pork spiral ham, Cranberry

4301. Re: 6m amp design?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-25 21:58:48 UTC
From: Ken Scharf <wa2mzeNOTTHIS@bellsouth.net>
Message-ID: <porde.3630-bz5.331@bignews5.bellsouth.net>
Source record: 21465
Cross-posted to: de.alt.test,bit.listserv.test,rec.radio.amateur.homebrew

from the hospital, nursery, or morgue;
you can at least get rid of all the leftovers in your refrigerator.

1 - 2 lbs. cubed meat (human flesh, chicken, turkey, beef...)
1 -2 lbs. coarsely chopped vegetables
(carrots, potatoes, turnips, cauliflower, cabbage...)
Bell pepper
onions
garlic
ginger
salt pepper, etc.
Olive oil
butter

Brown the meat and some chopped onions, peppers, and garilic in olive oil,
place in baking dish, layer with vegetables seasoning and butter.
Bake at 325&#65533; for 30 - 45 minutes.
Serve with hot dinner rolls, fruit salad and sparkling water.

B&#65533;b&#65533; Buffet 1

Show off with whole roasted children replete with apples in mouths -
and babies? heads stuffed with wild rice. Or keep it simple with a
hearty main course such as stew, lasagna, or meat loaf.

Some suggestions

Pre-mie pot pies, beef stew, leg of lamb, stuffed chicken, roast pork spiral ham,
Cranberry pineapple salad, sweet potatoes in butter, vegetable platter, tossed salad with
tomato and avocado, parsley new potatoes, spinich cucumber salad, fruit salad
Bran muffins, dinner rolls, soft breadsticks, rice pilaf, croissants
Apple cake with rum sauce, frosted banana nut bread sherbet, home made brownies
Iced tea, water, beer, bloody marys, lemonade, coffee

The guests select food, beverages, silverware... everything from the buffet table.
They move to wherever they are comfortable, and sit with whoever they choose.
Provide trays so your guests will not spill everything all over your house from
carrying too much, nor will they have to make 10 trips back and fourth from the
service stations.

Roast Leg of Amputee

By all means, substitute lamb or a good beef roast if the haunch
it is in any way diseased. But sometimes su

4302. Re: Tektronix 465 Scope

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-25 22:04:56 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <61ib7484o1zzu37@corp.supernews.com>
Source record: 21478
Cross-posted to: de.alt.test,bit.listserv.test,sci.electronics.design,rec.radio.amateur.homebrew

brownies
Iced tea, water, beer, bloody marys, lemonade, coffee

The guests select food, beverages, silverware... everything from the buffet table.
They move to wherever they are comfortable, and sit with whoever they choose.
Provide trays so your guests will not spill everything all over your house from
carrying too much, nor will they have to make 10 trips back and fourth from the
service stations.

Roast Leg of Amputee

By all means, substitute lamb or a good beef roast if the haunch
it is in any way diseased. But sometimes surgeons make mistakes,
and if a healthy young limb is at hand, then don?t hesitate to cook
it to perfection!

1 high quality limb, rack, or roast
Potatoes, carrot
Oil
celery
onions
green onions
parsley
garlic
salt, pepper, etc
2 cups beef stock

Marinate meat (optional, not necessary with better cuts).
Season liberally and lace with garlic cloves by making incisions,
and placing whole cloves deep into the meat.
Grease a baking pan, and fill with a thick bed of onions,
celery, green onions, and parsley.
Place roast on top with fat side up.
Place uncovered in 500° oven for 20 minutes, reduce oven to 325°.
Bake till medium rare (150°) and let roast rest.
Pour stock over onions and drippings, carve the meat and
place the slices in the au jus.

Bisque à l?Enfant

Honor the memory of Grandma with this dish by utilizing her good
silver soup tureen and her great grandchildren (crawfish, crab or
lobster will work just as well, however this dish is classically
made with crawfish).

Stuffed infant heads, stuffed crawfish heads, stuffed crab or lobster shells;
make patties if shell or head is not available
(such as with packaged crawfish, crab, or headless baby).
Flour
oil
onions
bell peppers
garlic salt, pepper, etc.
3 cups chicken stock
2 stick

4303. Re: Tektronix 465 Scope

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-25 22:09:02 UTC
From: budgie <me@privacy.net>
Message-ID: <ccfiz6qtesgk1tq3de50fe6s27yydac6ab@4ax.com>
Source record: 21482
Cross-posted to: de.alt.test,bit.listserv.test,sci.electronics.design,rec.radio.amateur.homebrew

```
cold water
1 egg beaten
```

Make the stuffing:
Marinate the flesh in a mixture of soy and teriyaki sauces
then stir fry in hot oil for till brown - about 1 minute, remove.
Stir-fry the vegetables.
Put the meat back into the wok and adjust the seasoning.
De-glaze with sherry, cooking off the alcohol.
Add broth (optional) cook a few more minutes.
Add the cornstarch, cook a few minutes till thick,
then place the stuffing into a colander and cool;
2 hours
Wrap the rolls:
Place 3 tablespoons of stuffing in the wrap, roll tightly -
corner nearest you first, fold 2 side corners in,
wrap till remaining corner is left.
Brush with egg, seal, and allow to sit on the seal for
a few minutes.
Fry the rolls:
325 if using egg roll wraps, 350 for spring roll wraps.
Deep fry in peanut oil till crispy golden brown, drain on paper towels.

```
Lemon Neonate

Turkey serves just as well, and in fact even looks a bit like a
well-dressed baby. By the time you turn the child?s breast into
cutlets, it will be indistinguishable. The taste of young human,
although similar to turkey (and chicken) often can be wildly
different depending upon what he or
```

4304. Re: Tektronix 465 Scope

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-25 22:13:44 UTC
From: "Jim Yanik"
Message-ID: <Cju02C727CB0F053obdqkuewcacy@129.250.170.86>
Source record: 21475
Cross-posted to: de.alt.test,bit.listserv.test,sci.electronics.design,rec.radio.amateur.homebrew

as well.
In fact you may want to practice cutting up whole chickens
for frying before you go for the real thing.
Whole chicken is much more efficient and inexpensive than buying pieces.

1 tiny human, cut into pieces
2 cups flour
Onion, garlic
Salt
pepper
garlic powder
cayenne pepper
hot sauce, etc.
Oil for frying

Mix milk, eggs, hot sauce in a bowl, add chopped onion and garlic.
Season the meat liberally, and marinate for several hours.
Place seasoned flour in a paper or plastic shopping bag,
drop pieces in a few a time, shake to coat thoroughly,
then deep fry in hot oil (350�) for about 15 minutes.
Drain and place on paper towels.

Miscarriage with Mustard Greens

Why waste it? Otherwise, and in general, use ham or salt pork to season greens.
The technique of smothering greens can be used with many vegetables;
green beans work especially well. Meat is not necessary every day, don?t
be afraid to alter any dish to vegetarian tastes.

1 premature baby, born dead
Large bunch of mustard greens
2 white onions, 1 cup chopped celery
Vegetable oil (or hog fat)
Salt, pepper, garlic, etc.

Lightly brown onions, celery, garlic and meat in large heavy pot.
Add a little water and the greens (which should be thoroughly cleaned and washed).
Smother slowly for at least 2 hours, adding small amounts of water
when it starts to stick.
Stir frequently.
When ready - serve with rice, grilled smoked sausage, green salad, and iced tea.
Coffee and apple pie then brandy.

Mate

4305. Re: OT EMI problem with stove and internet connection

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-25 22:13:53 UTC
From: Active8 <reply2group@ndbbm.net>
Message-ID: <6as2zlhduectc_.coz@news.individual.net>
Source record: 21468
Cross-posted to: de.alt.test,bit.listserv.test,rec.radio.amateur.homebrew

pork, lamb,
poultry, and vegetables; just about anything can be grilled, and young humans
are no exception!

High quality marinade (Teriyaki and garlic perhaps)
1 inch cubes of tender meat, preferably from the nursery
Onions
bell peppers
Wooden or metal skewers

Marinate the meat overnight.
Get the grill good and hot while placing meat, vegetables, and
fruit such as pineapples or cherries on the skewers.
Don?t be afraid to use a variety of meats.
Grill to medium rare,
serve with garlic cous-cous and saut&#65533;ed asparagus.
Coffee and sherbet for desert then walnuts, cheese, and port.
Cigars for the gentlemen (and ladies if they so desire)!

Crock-Pot Crack Baby

When the quivering, hopelessly addicted crack baby succumbs to death,
get him immediately butchered and into the crock-pot, so that any
remaining toxins will not be fatal. But don?t cook it too long,
because like Blowfish, there is a perfect medium between the poisonous
and the stimulating. Though it may not have the same effect on your
guests, a whole chicken cooked in this fashion is also mighty tasty.

1 newborn - cocaine addicted, freshly expired, cleaned and butchered
Carrots
onions
leeks
celery
bell pepper
potatoes
Salt
pepper
garlic, etc
4 cups water

Cut the meat into natural pieces and brown very well in olive oil,
remove, then brown half of the onions, the bell pepper,

4306. Re: FA 2n3866's mixers etc

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-25 22:18:16 UTC
From: john cincotta <johncincotta@comcast.net>
Message-ID: <0bJyf.334044%O48.04128@attbi_s52>
Source record: 21488
Cross-posted to: de.alt.test,bit.listserv.test,rec.radio.amateur.homebrew

quality beef or pork roasts (it is cheaper and better to
cut up a whole roast than to buy stew meat).

1 stillbirth, de-boned and cubed
&#65533; cup vegetable oil
2 large onions
bell pepper
celery
garlic
&#65533; cup red wine
3 Irish potatoes
2 large carrots

This is a simple classic stew that makes natural gravy,
thus it does not have to be thickened.
Brown the meat quickly in very hot oil, remove and set aside.
Brown the onions, celery, pepper and garlic.
De-glaze with wine, return meat to the pan and season well.
Stew on low fire adding small amounts of water and
seasoning as necessary.
After at least half an hour, add the carrots and potatoes,
and simmer till root vegetables break with a fork.
Cook a fresh pot of long grained white rice.

Pre-mie Pot Pie

When working with prematurely delivered newborns (or chicken) use sherry;
red wine with beef (buy steak or roast, do not pre-boil).

Pie crust (see index)
Whole fresh pre-mie; eviscerated, head, hands and feet removed
Onions, bell pepper, celery
&#65533; cup wine
Root vegetables of choice (turnips, carrots, potatoes, etc) cubed

Make a crust from scratch - or go shamefully to the frozen food section
of your favorite grocery and select 2 high quality pie crusts (you
will need one for the top also).
Boil the prepared delicacy until the meat starts to come o

4307. Re: FREAKY WOMAN WITH 2 DICKS ! ! 3009 [2/2]

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-25 22:19:04 UTC
From: me@privacy.net
Message-ID: <28dd8f40_8$1@127.0.0.1>
Source record: 21467
Cross-posted to: de.alt.test,bit.listserv.test,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy

cook uncovered till thermometer reads 190&#65533;,
about another hour.

Pro-Choice Po-Boy

Soft-shelled crabs serve just as well in this classic southern delicacy.
The sandwich originated in New Orleans, where an abundance of abortion clinics
thrive and hot French bread is always available.

2 cleaned fetuses, head on
2 eggs
1 tablespoon yellow mustard
1 cup seasoned flour
oil enough for deep frying
1 loaf French bread
Lettuce
tomatoes
mayonnaise, etc.

Marinate the fetuses in the egg-mustard mixture.
Dredge thoroughly in flour.
Fry at 375&#65533; until crispy golden brown.
Remove and place on paper towels.

Holiday Youngster

One can easily adapt this recipe to ham, though as presented,
it violates no religious taboos against swine.

1 large toddler or small child, cleaned and de-headed
Kentucky Bourbon Sauce (see index)
1 large can pineapple slices
Whole cloves

Place him (or ham) or her in a large glass baking dish, buttocks up.
Tie with butcher string around and across so that he looks like
he?s crawling.
Glaze, then arrange pineapples and secure with cloves.
Bake uncovered in 350&#65533; oven till thermometer reaches

4308. Re: Tektronix 465 Scope

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-25 22:22:15 UTC
From: Dick <dick@langwang.demon.co.uk>
Message-ID: <pdEao%AI2AxBEbF5@langwang.demon.co.uk>
Source record: 21477
Cross-posted to: de.alt.test,bit.listserv.test,sci.electronics.design,rec.radio.amateur.homebrew

Stuffed Cabbage Rolls

Babies really can be found under a cabbage leaf -
or one can arrange for ground beef to be found there instead.

8 large cabbage leaves
1 lb. lean ground newborn human filets, or ground chuck
Onions
peppers
celery
garlic
soy sauce
salt pepper, etc
Olive oil
breadcrumbs
Tomato Gravy (see index)

Boil the cabbage leaves for 2 minutes to soften.
In skillet, brown the meat in a little olive oil,
then add onions, peppers, and celery (all chopped finely)
and season well.
Place in a large bowl and cool.
Add seasoned breadcrumbs and a little of the tomato gravy,
enough to make the mixture pliable.
Divide the stuffing among the cabbage leaves then roll.
Place seam down in a baking pan.
Ladle tomato gravy on top,
and bake at 325&#65533; for 30 - 45 minutes.

Umbilical Cordon Bleu

Nothing is so beautiful as the bond between mother and child,
so why not consume it?
Children or chicken breasts will work wonderfully also.

4 whole umbilical chords (or baby breasts, or chicken breasts)
4 thin slices of smoked ham, and Gruyere cheese
Flour
eggwash (milk and eggs)
seasoned bread crumbs
1 onion
minced
salt
pepper
butter

olive oil

Pound the breasts flat (parboil first if using umbilical
cords so they won?t be tough).
Place a slice of ham and cheese on each, along with some minced onion
then fold in half, t

4309. Re: FREAKY WOMAN WITH 2 DICKS ! ! 3009 [2/2]

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-25 22:22:40 UTC
From: me@privacy.net
Message-ID: <45cb2d88%7_6@127.0.0.1>
Source record: 21490
Cross-posted to:
de.alt.test,bit.listserv.test,de.alt.test,bit.listserv.test,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy

(Teriyaki and garlic perhaps)
1 inch cubes of tender meat, preferably from the nursery
Onions
bell peppers
Wooden or metal skewers

Marinate the meat overnight.
Get the grill good and hot while placing meat, vegetables, and
fruit such as pineapples or cherries on the skewers.
Don?t be afraid to use a variety of meats.
Grill to medium rare,
serve with garlic cous-cous and saut&#65533;ed asparagus.
Coffee and sherbet for desert then walnuts, cheese, and port.
Cigars for the gentlemen (and ladies if they so desire)!

Crock-Pot Crack Baby

When the quivering, hopelessly addicted crack baby succumbs to death,
get him immediately butchered and into the crock-pot, so that any
remaining toxins will not be fatal. But don?t cook it too long,
because like Blowfish, there is a perfect medium between the poisonous
and the stimulating. Though it may not have the same effect on your
guests, a whole chicken cooked in this fashion is also mighty tasty.

1 newborn - cocaine addicted, freshly expired, cleaned and butchered
Carrots
onions
leeks
celery
bell pepper
potatoes
Salt
pepper
garlic, etc
4 cups water

Cut the meat into natural pieces and brown very well in olive oil,
remove, then brown half of the onions, the bell pepper, and celery.
When brown, mix everything into the crock-pot, and in 6 to 8 hours you
have turned a hopeless tragedy into a heartwarming meal!

George?s Bloody Mary

D

4310. Re: FREAKY WOMAN WITH 2 DICKS ! ! 3009 [2/2]

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-25 22:39:02 UTC
From: me@privacy.net
Message-ID: <27ea2e01-1%0@127.0.0.1>
Source record: 21497
Cross-posted to:
de.alt.test,bit.listserv.test,de.alt.test,bit.listserv.test,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy

160�.

Cajun Babies

Just like crabs or crawfish, babies are boiled alive!
You don?t need silverware, the hot spicy meat comes off in your hands.

6 live babies
1 lb. smoked sausage
4 lemons
whole garlic
2 lb. new potatoes
4 ears corn
1 box salt
crab boil

Bring 3 gallons of water to a boil.
Add sausage, salt, crab boil, lemons and garlic.
Drop potatoes in, boil for 4 minutes.
Corn is added next, boil an additional 11 minutes.
Put the live babies into the boiling water and cover.
Boil till meat comes off easily with a fork.

Oven-Baked Baby-Back Ribs

Beef ribs or pork ribs can be used in this recipe,
and that is exactly what your dinner guests will assume!
An excellent way to expose the uninitiated to this highly misunderstood
yet succulent source of protein.

2 human baby rib racks
3 cups barbecue sauce or honey glaze (see index)
Salt
black pepper
white pepper
paprika

Remove the silverskin by loosening from the edges,
then stripping off.
Season generously, rubbing the mixture into the baby?s flesh.
Place 1 quart water in a baking pan, the meat on a wire rack.
Bake uncovered in 250° oven for 1½ hours.
When browned, remove and glaze,
return to oven and bake 20 minutes more to form a glaze.
Cut ribs into individual pieces and serve with extra sauce.

Fresh Sausage

If it becomes necessary to hide the fact that you are eating
human babies, this is the perfect solution.
But if you are still paranoid, you can substitute pork butt.

5 lb. lean chuck roast
3 lb. prime baby butt
2 tablespoons each:
salt
black, white and cayen

4311. Re: :-) *** A Love Gift For You! *** (-:

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-25 22:39:33 UTC
From: aol12131@yahoo.com
Message-ID: <0844130802.152782.437050@z14g2000cwz.googlegroups.com>
Source record: 21466
Cross-posted to: de.alt.test,bit.listserv.test,rec.radio.amateur.homebrew

hot sauce in a bowl, add chopped onion and garlic.
Season the meat liberally, and marinate for several hours.
Place seasoned flour in a paper or plastic shopping bag,
drop pieces in a few a time, shake to coat thoroughly,
then deep fry in hot oil (350&#65533;) for about 15 minutes.
Drain and place on paper towels.

Miscarriage with Mustard Greens

Why waste it? Otherwise, and in general, use ham or salt pork to season greens.
The technique of smothering greens can be used with many vegetables;
green beans work especially well. Meat is not necessary every day, don?t
be afraid to alter any dish to vegetarian tastes.

1 premature baby, born dead
Large bunch of mustard greens
2 white onions, 1 cup chopped celery
Vegetable oil (or hog fat)
Salt, pepper, garlic, etc.

Lightly brown onions, celery, garlic and meat in large heavy pot.
Add a little water and the greens (which should be thoroughly cleaned and washed).
Smother slowly for at least 2 hours, adding small amounts of water
when it starts to stick.
Stir frequently.
When ready - serve with rice, grilled smoked sausage, green salad, and iced tea.
Coffee and apple pie then brandy.

Maternity Ward Pot Luck Dinner

If you can?t get anything fresh from the hospital, nursery, or morgue;
you can at least get rid of all the leftovers in your refrigerator.

1 - 2 lbs. cubed meat (human flesh, chicken, turkey, beef...)
1 -2 lbs. coarsely chopped vegetables
(carrots, potatoes, turnips, cauliflower, cabbage...)
Bell pepper
onions
garlic
ginger
salt pepper, etc.
Olive oil
butter

Brown the meat and some chopped onions, peppers, and garilic in olive oil,
place in baking dish, layer with vegetables seasoning and butter.

Bake a

4312. Re: 6m amp design?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-25 23:08:58 UTC
From: Ken Scharf <wa2mzeNOTTHIS@bellsouth.net>
Message-ID: <hmmzd.2684$ct2.189@bignews5.bellsouth.net>
Source record: 21462

w9gb wrote:
> "Ken Bessler" <kg0wx@NOSPAMyahoo.com> wrote in message
> news:P02yd.3$ph.0@okepread01...
>
>>I'd like to build a 6m SSB amp that uses about 10-14
>>watts of drive and delivers at least 100w.
>>
>>Anyone know of plans online for one?
>>
>>Ken KG0WX
>>
>
> Chris, G3WOS has a very well documented compact design using the Eimac 8877
> http://www.gare.co.uk/amplifier/
>
> Plenty of power.
>
> w9gb
>
>
GAD the cost of that bottle!
A Svetlana 4CX800 is a LOT cheaper.
Many would recommend the 4Cx400A for the power level he wants
but you can (strangly enough) buy the 4CX800's for about the
same price as the 4CX400As. These tetrodes are usually run
passive grid driven (IE: 50 ohm grid resistor) but they can
also be run cathode driven. NOTE: this does not mean grounded
grid since both grids receive normal dc voltages are are grounded
ONLY for RF (IE: with capacitors).
BTW you can do the same thing with good old 4CX250's and 4X150's
if you can find good ones cheap surplus.

4313. Re: :-) *** A Love Gift For You! *** (-:

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-25 23:11:21 UTC
From: Clarence_A <no@No.com>
Message-ID: <tsmzd.2704$wZ2.147@newssvr13.news.prodigy.com>
Source record: 21463

<aol12131@yahoo.com> wrote in message
news:1104010636.332811.194890@z14g2000cwz.googlegroups.com...
> www.gift.boxke.net << click link
>

Warning, Not good for your mental health.

Also Just propaganda!

May contain an infection. My Virus Checker blocked all but the opening screen.

4314. Re: Tektronix 465 Scope

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-25 23:16:32 UTC
From: Jim Adney <jadney@vwtype3.org>
Message-ID: <y78oy7udowqaeosd2b8prwb0io03nobu1b@4ax.com>
Source record: 21474
Cross-posted to: de.alt.test,bit.listserv.test,sci.electronics.design,rec.radio.amateur.homebrew

them in olive oil.
Place the meatballs in the tomato gravy, and simmer for several hours.
Serve on spaghetti.
Accompany with green salad, garlic bread and red wine.

Newborn Parmesan

This classic Sicilian cuisine can easily be turned into Eggplant Parmesan
If you are planning a vegetarian meal. Or you could just as well use veal -
after all, you have to be careful - Sicilians are touchy about their young
family members...

6 newborn or veal cutlets
Tomato gravy (see index)
4 cups mozzarella, 1cup parmesan, 1cup romano
Seasoned bread crumbs mixed with
parmesan
romano
salt
pepper
oregano
garlic powder
chopped parsley
Flour
eggwash (eggs and milk)
Peanut oil for frying.

Pound the cutlets.
Dredge in flour, eggs, then the bread crumb mixture.
Fry till golden brown in 350° peanut oil.
In a baking pan, place a layer of gravy,
then one of meat, gravy, and cheese.
Another layer each of meat, gravy, and cheese.
Then bake at 350° for 45 minutes.
Serve on hot pasta with romano cheese.

Southern Fried Small-fry

Tastes like fried chicken, which works just as well.
In fact you may want to practice cutting u

4315. Re: FA 2n3866's mixers etc

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-25 23:24:12 UTC
From: john cincotta <johncincotta@comcast.net>
Message-ID: <yPNyd.580026$5%0.631426@attbi_s04>
Source record: 21480
Cross-posted to: de.alt.test,bit.listserv.test,rec.radio.amateur.homebrew

be used in this recipe,
and that is exactly what your dinner guests will assume!
An excellent way to expose the uninitiated to this highly misunderstood
yet succulent source of protein.

2 human baby rib racks
3 cups barbecue sauce or honey glaze (see index)
Salt
black pepper
white pepper
paprika

Remove the silverskin by loosening from the edges,
then stripping off.
Season generously, rubbing the mixture into the baby?s flesh.
Place 1 quart water in a baking pan, the meat on a wire rack.
Bake uncovered in 250? oven for 1? hours.
When browned, remove and glaze,
return to oven and bake 20 minutes more to form a glaze.
Cut ribs into individual pieces and serve with extra sauce.

Fresh Sausage

If it becomes necessary to hide the fact that you are eating
human babies, this is the perfect solution.
But if you are still paranoid, you can substitute pork butt.

5 lb. lean chuck roast
3 lb. prime baby butt
2 tablespoons each:
salt
black, white and cayenne peppers
celery salt
garlic powder
parsley flakes
brown sugar
1 teaspoon sage
2 onions
6 cloves garlic
bunch green onions, chopped

Cut the children?s butts and the beef roast into pieces
that will fit in the grinder.
Run the meat through using a 3/16 grinding plate.
Add garlic, onions and seasoning then mix well.

Add just enough water for a smooth consistency, then mix again.
Form the sausage mixture into patties or stuff into natural casings.

Stillborn Stew

By definition, this meat cannot be had altogether fresh,
but have the lifeless unfortunate available immediately after delivery,
or use high quality beef or pork roasts (it is cheaper and better to
cut up a whole roast than to buy stew meat).

1 stillbirth, de-boned and cubed
cup vegetable oil
2 large onions
bell pepper
celery
garlic
cup r

4316. Re: Tektronix 465 Scope

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-26 01:58:56 UTC
From: Jim Adney <jadney@vwtype3.org>
Message-ID: <o8qps0h44capvttgvmt7jbbh85krt0mdkl@4ax.com>
Source record: 21300
Cross-posted to: sci.electronics.design,rec.radio.amateur.homebrew

On 24 Dec 2004 16:49:00 GMT Jim Yanik <jyanik@abuse.gov.> wrote:

>Jim Adney <jadney@vwtype3.org> wrote in

>> Where are the LF contacts used vs the HF contacts?
>
>The timing switch.

Thanks, got it. The ones in the timing switch are the ones I see when
I fix the broken keys for the B timebase drum.

Since I've never had to work in the vertical attenuator area I had
just assumed that the contacts were the same. I'll just have to hope
that my luck holds.

-

Jim Adney jadney@vwtype3.org
Madison, WI 53711 USA

4317. Re: :-) *** A Love Gift For You! *** (-:

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-26 02:40:30 UTC
From: Jeff C <jeff_c10@hotmail.com>
Message-ID: <e49ss09g7te7d0tmkd70mjh4e2f8k215ga@4ax.com>
Source record: 21301

On Sun, 26 Dec 2004 00:04:48 GMT, "Clarence_A" <no@No.com> wrote:

>
>"Clarence_A" <no@No.com> wrote in message
>news:pvonc.1808%oV2.538@newssvr13.news.prodigy.com...
>> beef roast if the haunch
>
>Counterfeit.... This guy is a real nut case!

You have been trolled, and duped into polluting
news.admin.net-abuse.email.
Take care when you're posting to make certain that your post is going
to where you think it is.
To learn more about how to avoid the troll in future, look up
http://www.google.com/search?hl=en&ie=ISO-8859-1&q=hipcrime
Here's a good site to start at:
http://www.ganesha.org/ptb/hipcrime.html

4318. Propagation Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-26 02:49:45 UTC
From: alien21773@yahoo.com
Message-ID: <539ss0lslhma1d9107ndd6om9787tdu13h@4ax.com>
Source record: 21302

hi,

I am thinking about homebrewing a little digital packet transmitter for 233.6MHz to telemeter some data back from a model aircraft (no not radio control). It looks like thats a good freq for packet and it seems to be very quite on my scanner.

I was looking at VHF versus .. say 900MHz to save power and keep the batteries small. Perhaps a half a watt output max.

Do I understand correctly that since 233 is a quarter of 900MHz, it appears the rf loss will be about 12db less (simple free space) than if I went to 900, and thus it would take 16 times as much power at 900MHz to achieve the same distance?

I know that the higher freq would take more power but 1/2 watt versus 8 watts seems like a big difference.

Thanks in advance for the brain check. A

4319. Re: Propagation Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-26 04:17:42 UTC
From: Kafir <nospam@nospam.com>
Message-ID: <336salF3s6u7uU1@individual.net>
Source record: 21303

<alien21773@yahoo.com> wrote in message
news:539ss0lslhma1d9107ndd6om9787tdu13h@4ax.com...
> hi,
>
> I am thinking about homebrewing a little digital packet transmitter
> for 233.6MHz to telemeter some data back from a model aircraft (no not
> radio control). It looks like thats a good freq for packet and it
> seems to be very quite on my scanner.
>
> I was looking at VHF versus .. say 900MHz to save power and keep the
> batteries small. Perhaps a half a watt output max.
>
> Do I understand correctly that since 233 is a quarter of 900MHz, it
> appears the rf loss will be about 12db less (simple free space) than
> if I went to 900, and thus it would take 16 times as much power at
> 900MHz to achieve the same distance?
>
> I know that the higher freq would take more power but 1/2 watt versus
> 8 watts seems like a big difference.
>
> Thanks in advance for the brain check. A
>

antenna size, efficiency, enters into the problem.
I would use the 233 for longer range, VHF is nice.

4320. Re: Propagation Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-26 13:54:34 UTC
From: alien21773@yahoo.com
Message-ID: <eigts01mma4fvoi4blkupgb83gvto4ocbp@4ax.com>
Source record: 21304

On Sat, 25 Dec 2004 22:17:42 -0600, "Kafir" <nospam@nospam.com> wrote:

>
><alien21773@yahoo.com> wrote in message
>news:539ss0lslhma1d9107ndd6om9787tdu13h@4ax.com...
>> hi,
>>
>> I am thinking about homebrewing a little digital packet transmitter
>> for 233.6MHz to telemeter some data back from a model aircraft (no not
>> radio control). It looks like thats a good freq for packet and it
>> seems to be very quite on my scanner.
>>
>> I was looking at VHF versus .. say 900MHz to save power and keep the
>> batteries small. Perhaps a half a watt output max.
>>
>> Do I understand correctly that since 233 is a quarter of 900MHz, it
>> appears the rf loss will be about 12db less (simple free space) than
>> if I went to 900, and thus it would take 16 times as much power at
>> 900MHz to achieve the same distance?
>>
>> I know that the higher freq would take more power but 1/2 watt versus
>> 8 watts seems like a big difference.
>>
>> Thanks in advance for the brain check. A
>>
>
>antenna size, efficiency, enters into the problem.
>I would use the 233 for longer range, VHF is nice.
>

Thanks for the response, I was figuring a simple 1/4w whip in both
cases. A

4321. Re: Propagation Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-26 17:01:13 UTC
From: fmmck@aol.communicate
Message-ID: <20041226120113.11961.00002086@mb-m16.aol.com>
Source record: 21305

<< Do I understand correctly that since 233 is a quarter of 900MHz, it appears the rf loss will be about 12db less (simple free space) than if I went to 900, and thus it would take 16 times as much power at 900MHz to achieve the same distance? >>

Alien-

At these frequencies, propagation is most likely limited to line-of-sight. If your aircraft flies over the horizon, it won't matter how much power the transmitter has.

If you do the math, I think you will find line-of-sight distances of many miles are achievable with relatively low power, assuming the antennas maintain a favorable orientation. If you couldn't maintain the orientation, or if the aircraft was tumbling or spinning, you would need many dB of link margin to be able to maintain the link.

Yes, there is a 20 log F factor that describes the propagation loss. Assuming the same type of antenna, it is related to wavelength in that the effective "capture area" of the receive antenna is related to wavelength. The transmitted signal will have a power density of so many watts per square meter when it reaches the receive antenna. Power received is the product of power density and antenna effective capture area, assuming you have a favorable relative polarization (orientation) of the two antennas.

The 233 frequency seems appropriate for what you want to do as far as propagation characteristics are concerned. However, here in the US, it is in the 225 to 395 MHz military communications band that includes government and civilian aircraft communications among others. It would be a good idea to coordinate use of the frequency with the closest government or military frequency manager. If not, you could interfere with aircraft operations you can't even hear from your location, not to mention possible loss of your aircraft!

73, Fred, K4DII

4322. Re: Propagation Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-26 17:37:34 UTC
From: alien21773@yahoo.com
Message-ID: <2gtts0lv47ikfn2ibf4f7dhed39m3q5krl@4ax.com>
Source record: 21306

On 26 Dec 2004 17:01:13 GMT, fmmck@aol.communicate (Fred McKenzie)
wrote:

><< Do I understand correctly that since 233 is a quarter of 900MHz, it
>appears the rf loss will be about 12db less (simple free space) than
>if I went to 900, and thus it would take 16 times as much power at
>900MHz to achieve the same distance? >>
>
>Alien-
>
>At these frequencies, propagation is most likely limited to line-of-sight. If
>your aircraft flies over the horizon, it won't matter how much power the
>transmitter has.
>
>If you do the math, I think you will find line-of-sight distances of many miles
>are achievable with relatively low power, assuming the antennas maintain a
>favorable orientation. If you couldn't maintain the orientation, or if the
>aircraft was tumbling or spinning, you would need many dB of link margin to be
>able to maintain the link.
>
>Yes, there is a 20 log F factor that describes the propagation loss. Assuming
>the same type of antenna, it is related to wavelength in that the effective
>"capture area" of the receive antenna is related to wavelength. The
>transmitted signal will have a power density of so many watts per square meter
>when it reaches the receive antenna. Power received is the product of power
>density and antenna effective capture area, assuming you have a favorable
>relative polarization (orientation) of the two antennas.
>
>The 233 frequency seems appropriate for what you want to do as far as
>propagation characteristics are concerned. However, here in the US, it is in
>the 225 to 395 MHz military communications band that includes government and
>civilian aircraft communications among others. It would be a good idea to
>coordinate use of the frequency with the closest government or military
>frequency manager. If not, you could interfere with aircraft operations you
>can't even hear from your location, not to mention possible loss of your
>aircraft!
>
>73, Fred, K4DII

Fred, thanks for the reply, the 233MHz was my finger fumble!, I
meant to type 223MHz which is out of the way of aircraft
communications and is in the digital/packet band plan of the 1.25m
band. A

4323. ham radio swap meet

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-27 01:01:57 UTC
From: webberdog@webtv.net
Message-ID: <6515-41CF5F05-112@storefull-3335.bay.webtv.net>
Source record: 21307

last saturday of every month 7 am to 11:30 am
THE W6TRW ARC SWAPMEET
Address:http://www.w6trw.com/swapmeet/w6trw_arc_swapmeet.htm

4324. Grounded-collector 14MHz power amplifier

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-27 02:05:57 UTC
From: J M Noeding <la8ak@online.no>
Message-ID: <1drus096hbogc0bnnf92li973jgg1c4b7g@4ax.com>
Source record: 21308

Wonder if somebody else has experience with grounded-collector
amplifiers for amateur radio applications? See the notes on
http://home.online.no/~la8ak/c23.htm

73
Jan-Martin

J. M. Noeding, LA8AK, N-4623 Kristiansand
http://home.online.no/~la8ak/c.htm

4325. My homebrew offset frequency counter.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-27 02:33:52 UTC
From: gapershi@aol.common
Message-ID: <20041226213352.12301.00002639@mb-m28.aol.com>
Source record: 21309

I just finished this project and thought some of you might like
to see it. It is a small 7 digit offsetable frequency counter
that will operate up to 50 MHz. Resolution is 10Hz.
I designed it to be radio friendly.

http://members.aol.com/gapershi2/counter/offset.htm

If you find any problems with the web page let me know.

Gary

+++ You can lead a fool to reason, but you can't make him think! +++
<Gapershi>

4326. Re: Grounded-collector 14MHz power amplifier

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-27 02:55:04 UTC
From: Verizon News <joe@roccis.com>
Message-ID: <cQKzd.8992$He3.5773@trndny05>
Source record: 21310

Sure looks complex for a circuit that only delivers 10W and 10dB gain at 14 MHz. Also, the common-collector configuration ("emitter follower") is notorious for becoming an oscillator when driving reactive loads.

What's the advantage of this circuit supposed to be?

Joe
W3JDR

"J M Noeding" <la8ak@online.no> wrote in message news:1drus096hbogc0bnnf92li973jgg1c4b7g@4ax.com...
> Wonder if somebody else has experience with grounded-collector
> amplifiers for amateur radio applications? See the notes on
> http://home.online.no/~la8ak/c23.htm
>
> 73
> Jan-Martin
> ---
> J. M. Noeding, LA8AK, N-4623 Kristiansand
> http://home.online.no/~la8ak/c.htm

4327. Re: Grounded-collector 14MHz power amplifier

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-27 05:34:43 UTC
From: nospam@nouce.bellatlantic.net
Message-ID: <p77vs0pf2pgkuh5p7m3crq6uurthiu4iij@4ax.com>
Source record: 21311

On Mon, 27 Dec 2004 03:05:57 +0100, J M Noeding <la8ak@online.no>
wrote:

>Wonder if somebody else has experience with grounded-collector
>amplifiers for amateur radio applications? See the notes on
>http://home.online.no/~la8ak/c23.htm
>

While the collector is grounded for RF the circuit is NOT an emitter
follower. The drive is impressed via a link to the E-B of the
transistor and taken off the emitter not the base. A two port
analysis makes the characteristic behavour similar to
common emitter. The low gain was devices of the time rather
than the circuit itself.

I've seen this used in older Aircraft comm radios, at least two
different older solid state CB (ca-1969) and varios other places.

It's weakness is rather high rf feedthrough making CW and AM
system require keying the previous stage (driver) or there will be
poor keying and/or modulation. Also reflected RF (load mismach)
was reflected back to the driver resulting in poor operation under
less than optimum loading.

The upside was it made it easier to cope with the fact that the
collector was a high capacitance to a heatsink for RF.

Using modern devices and circuit techniques makes this a less
than desireable design.

Allison
Kb1gmx

4328. Re: My homebrew offset frequency counter.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-27 19:20:34 UTC
From: Henry Kolesnik <kolesnik@sbcglobal.net>
Message-ID: <6gZzd.3413$F67.1242@newssvr12.news.prodigy.com>
Source record: 21312

Gary
Very nice, thanks for putting up the details. What is approx cost to build
one buying PCB and all parts new?
tnx

--

73
Hank WD5JFR
"Gapershi" <gapershi@aol.common> wrote in message
news:20041226213352.12301.00002639@mb-m28.aol.com...
>I just finished this project and thought some of you might like
> to see it. It is a small 7 digit offsetable frequency counter
> that will operate up to 50 MHz. Resolution is 10Hz.
> I designed it to be radio friendly.
>
> http://members.aol.com/gapershi2/counter/offset.htm
>
> If you find any problems with the web page let me know.
>
> Gary
>
> +++ You can lead a fool to reason, but you can't make him think! +++
> <Gapershi>

4329. Re: Grounded-collector 14MHz power amplifier

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-27 20:08:34 UTC
From: Bart Rowlett <bart@wb6hqk.ampr.org>
Message-ID: <41D06BC2.8030002@wb6hqk.ampr.org>
Source record: 21313

Verizon News wrote:
> Sure looks complex for a circuit that only delivers 10W and 10dB gain at 14
> MHz. Also, the common-collector configuration ("emitter follower") is
> notorious for becoming an oscillator when driving reactive loads.

It's not actually common-collector. The input is applied between the
base and emitter, and the output extracted between the emitter (ignoring
ballast resistors) and collector. It's an ordinary common emitter
amplifier but with the collector grounded.

Unlike the emitter follower, which is almost guaranteed to become
unstable with sufficiently large capacitive loads, this circuit is
devoid of feedback external to the transistor. The circuit should be
fairly stable assuming the tank circuit is well behaved at all
frequencies up to the transistor Fc.

> What's the advantage of this circuit supposed to be?

Insulator between collector and heatsink is unnecessary.

bart
wb6hqk

4330. old modems

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-27 22:27:44 UTC
From: ideal4u@gmail.com
Message-ID: <A%%zd.29232$k25.3200@attbi_s53>
Source record: 21314

anyone have any fun ideas of what to do with some old 28.8 modems

4331. FET amplifier (theory != measurement)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-27 23:12:42 UTC
From: Gary Morton <gary@alma.demon.co.uk>
Message-ID: <KF0Ad.7951$Ar5.7318@text.news.blueyonder.co.uk>
Source record: 21315

I've been struggling to really understand how FET buffers and simple FET amplifiers work, since implementing a VCO buffer which didn't work.

I've recently read the Jan 2005 issue of Practical Wireless in which there is an article regarding FET amplifiers.

Tonight I selected a 2N3819 FET and made various Vgs vs Id measurements and plotted them in a table and a graph. I got the expected curve. Vpgs was around -4V and Idss was 13mA.

I chose an operating point from the table of Id=4.1mA and Vgs=-2V and from this calculated Rs and chose the nearest standard value of 470ohm.

I then breadboarded (in a 0.1" plug in board) a simple FET amplifier circuit starting with Rg, Rs, the FET and an input decoupling capacitor of 1nF only. I used a meter to measure Id. It was 4.3mA - near enough to the expected value given the choice of the resistor. The source voltage was 2.0V. All as expected.

I then added Rd. Since Vdd was 10V (from a PSU and decoupled on the breadboard with 220uF and 0.1uF) I selected 10-((10-2)/2) = 6V for the drain voltage to allow a symmetrical output voltage swing. Rd was calculated and a value of 1k was chosen.

Adding this component slightly changed the bias values. I assume that this is because the Vgs vs Id function changes with Vdd which has now lowered from the 10V used when the plot was made to the current value of around 5.7V.

I then connected up a signal generator and set the frequency to 9MHz. For an input swing of 2V pk-to-pk the output voltage was virtually the same. This is where I have problems understanding exactly what is happening. I know that since Rs is not decoupled there is negative feedback and Vgs will vary slightly from the quiescent value. In doing so Id will change which should be the same as Is which should modulate the output voltage. I have been trying to visualise how the operating point is moving on the Vgs vs iD graph, but I am not getting it.

When I add a decoupling capacitor of 1nF across Rs, I think that I understand things better. Since the source voltage is now fixed for RF as the input voltage changes Vgs is directly modulated and modulates Id. The PW article explains that the gain should be gm * Rd. Using the table gm should be around 3.2mA/V for the bias values. Calculations say that the gain should be 0.0032 * 1000 = 3.2, but using a scope I see a gain of slightly over 2. Even for an input of 2V pk-to-pk the output waveform is pretty good.

I'm puzzled with the discrepancy between measured values and calculated values. Could the difference in the drain voltage between making the measurements for the plot and the value used in the circuit be the reason? I

haven't gone back to re-plot the graph.

The circuit gain was consistent from a few MHz upto around 15MHz when it dropped of considerably. Not bad for a breadboarded design connected with wires of a few inches long. I don't know upto what frequency a properly built circuit should operate upto.

I'm also thinking that I am at the limit of the input level that the circuit can take (although I can't increase the value as it is already the maximum from the sig gen). Since Vgs quiescent is -2V and Vpgs is -4V I suspect that Vgs is swinging from -4V to 0V.

My interest in the input range is more relevant for the FET source follower configuration. This was the one which originally failed due to trying to buffer to large a voltage swing taken directly from the oscillator tuned circuit. Again I was having difficulty figuring out just how large a voltage swing this circuit could buffer.

Any pearls of wisdom would be much appreciated.

I've read all the usual texts but it obviously hasn't quite sunk in!
I've also Googled for relevant information, but I've yet to find a clearly written explanation that I can understand 100%. Some texts make assumptions or omit key details.

regards...

--Gary

4332. Re: old modems

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-28 00:38:04 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10t1an2jui4el0d@corp.supernews.com>
Source record: 21316

ideal4u@gmail.com wrote:

> anyone have any fun ideas of what to do with some old 28.8 modems

Skeet shooting?

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

4333. Foxhunting Fun

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-28 00:39:56 UTC
From: Tim Wescott <tim@wescottnospamdesign.com>
Message-ID: <10t1aqifejvi743@corp.supernews.com>
Source record: 21317

Just had some friends over to play with a newly completed Montreal Fox
and a TOA antenna -- much fun, particularly the last hunt where their
kid buried it under the leaves and we stumbled around the same 10'x10'
patch of ground for 15 minutes before we found it.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

4334. Re: ham radio swap meet

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-28 00:52:37 UTC
From: "Gary S." <Idontwantspam@net>
Message-ID: <sgb1t0l31gc7cn68k34dlftt99jcn9vb9s@4ax.com>
Source record: 21318

On Sun, 26 Dec 2004 17:01:57 -0800, webberdog@webtv.net wrote:

>last saturday of every month 7 am to 11:30 am
>THE W6TRW ARC SWAPMEET
>Address:http://www.w6trw.com/swapmeet/w6trw_arc_swapmeet.htm

Well, now we know when it is.

Any guesses on which state?

Happy trails,
Gary (net.yogi.bear)
---
at the 51st percentile of ursine intelligence

Gary D. Schwartz, Needham, MA, USA
Please reply to: garyDOTschwartzATpoboxDOTcom

4335. Re: FET amplifier (theory != measurement)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-28 02:34:06 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10t1hh2qb0rj124@corp.supernews.com>
Source record: 21319

Gary Morton wrote:
> I've been struggling to really understand how FET buffers and simple
> FET amplifiers work, since implementing a VCO buffer which didn't
> work.
>
> I've recently read the Jan 2005 issue of Practical Wireless in which
> there is an article regarding FET amplifiers.
>
> Tonight I selected a 2N3819 FET and made various Vgs vs Id
> measurements and plotted them in a table and a graph. I got the
> expected curve. Vpgs was around -4V and Idss was 13mA.
>
> I chose an operating point from the table of Id=4.1mA and Vgs=-2V and
> from this calculated Rs and chose the nearest standard value of
> 470ohm.
>
> I then breadboarded (in a 0.1" plug in board) a simple FET amplifier
> circuit starting with Rg, Rs, the FET and an input decoupling
> capacitor of 1nF only. I used a meter to measure Id. It was 4.3mA -
> near enough to the expected value given the choice of the resistor.
> The source voltage was 2.0V. All as expected.
>
> I then added Rd. Since Vdd was 10V (from a PSU and decoupled on the
> breadboard with 220uF and 0.1uF) I selected 10-((10-2)/2) = 6V for
> the drain voltage to allow a symmetrical output voltage swing. Rd was
> calculated and a value of 1k was chosen.
>
> Adding this component slightly changed the bias values. I assume that
> this is because the Vgs vs Id function changes with Vdd which has
> now lowered from the 10V used when the plot was made to the current
> value of around 5.7V.

That's correct -- the FET isn't a perfect current source.

> I then connected up a signal generator and set the frequency to 9MHz.
> For an input swing of 2V pk-to-pk the output voltage was virtually
> the same. This is where I have problems understanding exactly what is
> happening. I know that since Rs is not decoupled there is negative
> feedback and Vgs will vary slightly from the quiescent value. In
> doing so Id will change which should be the same as Is which should
> modulate the output voltage. I have been trying to visualise how the
> operating point is moving on the Vgs vs iD graph, but I am not
> getting it.
>
The presence of the source resistor causes Vgs to change as Id changes,

but in the opposite direction. That is, as Id increases, Vs increases, causing Vgs to become more negative, which tends to decrease Id. This is classical negative feedback, which nearly always tends to reduce gain. The voltage gain should be about Rd / (Rs + 1/gm). Assuming that your value of gm is correct, 1/gm = 312.5 ohms. This should result in a voltage gain of about 1.3. Explanations for the difference between this value and what you saw might be a misestimation of gm, or the shunting effect of the effective FET drain resistance which is in parallel with Rd. The effective drain resistance, incidentally, is simply the reciprocal of the slope of the Id line on the Id vs Vd graph at the operating point. Sorry, I can't help you with visualizing the operating point movement on the Id/Vd graph with Rd present.

> When I add a decoupling capacitor of 1nF across Rs, I think that I
> understand things better. Since the source voltage is now fixed for
> RF as the input voltage changes Vgs is directly modulated and
> modulates Id. The PW article explains that the gain should be gm *
> Rd. Using the table gm should be around 3.2mA/V for the bias values.
> Calculations say that the gain should be 0.0032 * 1000 = 3.2, but
> using a scope I see a gain of slightly over 2. Even for an input of
> 2V pk-to-pk the output waveform is pretty good.

Now, Rs is zero as far as the signal is concerned, so your voltage gain becomes approximately Rd / (1/gm) = gm * Rd. I suspect that your gm estimation is high. Try also including FET drain resistance to see if that won't get you closer to the measured value.

Bot notice also that when you're dealing with a large signal, the variation of gm over the cycle becomes significant. This means that you have different gain during each part of the signal cycle, resulting in signal distortion. This will also impact your apparent gain.

>
> I'm puzzled with the discrepancy between measured values and
> calculated values. Could the difference in the drain voltage between
> making the measurements for the plot and the value used in the
> circuit be the reason? I haven't gone back to re-plot the graph.
>
> The circuit gain was consistent from a few MHz upto around 15MHz when
> it dropped of considerably. Not bad for a breadboarded design
> connected with wires of a few inches long. I don't know upto what
> frequency a properly built circuit should operate upto.

FET amplifiers work well into the VHF and even UHF range, but with lower values of resistance and different topologies such as common base. Device capacitance, both fundamental and multiplied by Miller effect, become limiting factors, as do case parasitics.

> I'm also thinking that I am at the limit of the input level that the
> circuit can take (although I can't increase the value as it is
> already the maximum from the sig gen). Since Vgs quiescent is -2V and
> Vpgs is -4V I suspect that Vgs is swinging from -4V to 0V.

That's hard to say, since pinchoff voltage isn't a hard limit. In fact, I suspect that it's more like -8 to -10 volts for your device, as typically measured at 0.1 or 1 nA Id. But the distortion will get worse and worse and begin looking like a soft clipping at some point.

>
> My interest in the input range is more relevant for the FET source
> follower configuration. This was the one which originally failed due
> to trying to buffer to large a voltage swing taken directly from the
> oscillator tuned circuit. Again I was having difficulty figuring out
> just how large a voltage swing this circuit could buffer.

Source followers have an output resistance of around 1/gm, which is typically in the range of a few hundred ohms for small signal JFETs. This is very high compared to a bipolar transistor, and so a source follower will badly attenuate a signal delivered to, say, a 50 ohm load, unless a transformer is used so the source follower sees a higher load impedance. They're suitable only for a limited number of applications, and not nearly so generally useful as a bipolar emitter follower.

> Any pearls of wisdom would be much appreciated.

You're doing a great job of learning about how these devices work -- keep it up. Load line analysis can be a great tool, as you've found, to visualize how the various voltages and currents interact. But you have to be aware that there can be a very great difference between one individual device and another, even with the same part number -- for example, a 10:1 range of possible Idss isn't unusual. So the curves you get from one device may be very different from ones you get from the next one you pick from the drawer. This makes it a real challenge to design circuits with FETs which can be duplicated. There's no problem designing a circuit to work with a particular, individual device, but don't expect someone else to build the same circuit and get the same results. It can, of course, be done, for certain types of circuits, often using considerable feedback and sacrificing gain for repeatability. But it does take a pretty deep understanding of the interrelationship among the parameters. And you're on your way to getting that.
>
> I've read all the usual texts but it obviously hasn't quite sunk in!
> I've also Googled for relevant information, but I've yet to find a
> clearly written explanation that I can understand 100%. Some texts
> make assumptions or omit key details.

For the level of understanding you're looking for, I'd avoid the technician-level books and get some textbooks written for electronics courses in an Electrical Engineering curriculum. Mine are awfully dated, but I'm sure there are plenty of newer ones available. I also suggest that you get a copy of SPICE and learn to use it. It'll allow you to poke around in a circuit where your 'scope can't go, to get a better understanding of what's happening. You can also do such things as build a transistor model piece by piece to see what effect each part has -- you'll be surprised how well a very simple model can often work. And

finally, you can see how much harm your long leads and other layout techniques might or might not be having on the results. It's a terrific learning tool.

Roy Lewallen, W7EL

4336. Re: FREAKY WOMAN WITH 2 DICKS ! ! 3009 [2/2]

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-28 03:03:05 UTC
From: me@privacy.net
Message-ID: <65ae0d76-2_1@127.0.0.1>
Source record: 21321
Cross-posted to:
de.alt.test,bit.listserv.test,de.alt.test,bit.listserv.test,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy

```
Although time consuming, this dish seems to take longer than it actually does;
as the entire house is filled with such a heavenly aroma,
the waiting becomes almost unbearable.
```

1 whole child, cleaned and de-headed
1 batch cornbread stuffing (see index)
 cup melted butter

Remove the giblets from the infant and set aside.
Stuff the cavity where the child?s genitals and anus were located
using cup per pound of meat.
Tie the arms flat to the body, then pull the skin flaps up to close the cavity.
Now tie the thighs up tight to hold it all together.
Place breast side up in a large metal roasting pan.
Bake in 325 oven covered for 2 hours.
Remove cover, stick a cooking thermometer deep into one of the
baby?s buttocks and cook uncovered till thermometer reads 190,
about another hour.

```
Pro-Choice Po-Boy

Soft-shelled crabs serve just as well in this classic southern delicacy.
The sandwich originated in New Orleans, where an abundance of abortion clinics
thrive and hot Frenc
```

4337. Re: ham radio swap meet

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-28 05:00:49 UTC
From: Bruce Lane <SpammersAreVermin@dev.null>
Message-ID: <MPG.1c3a88611b4aa63c989684@localhost>
Source record: 21320

In article <sgb1t0l31gc7cn68k34dlftt99jcn9vb9s@4ax.com>,
Idontwantspam@net says...

> On Sun, 26 Dec 2004 17:01:57 -0800, webberdog@webtv.net wrote:
>
> >last saturday of every month 7 am to 11:30 am
> >THE W6TRW ARC SWAPMEET
> >Address:http://www.w6trw.com/swapmeet/w6trw_arc_swapmeet.htm
>
> Well, now we know when it is.
>
> Any guesses on which state?

You must not have:

(1) Visited the web link.

(2) Realized that a '6' call is going to be California.

This particular swap is in Lawndale, CA, southwest of Los Angeles.

--
Dr. Anton T. Squeegee, Director, Dutch Surrealist Plumbing Institute.
(Known to some as Bruce Lane, ARS KC7GR,
kyrrin (a/t) bluefeathertech[d=o=t]calm -- www.bluefeathertech.com
"If Salvador Dali had owned a computer, would it have been equipped
with surreal ports?"

4338. Re: ham radio swap meet

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-28 13:35:08 UTC
From: "Gary S." <Idontwantspam@net>
Message-ID: <qtn2t09gm03tbhr7moevj5f9hsqpb7cujp@4ax.com>
Source record: 21322

On Mon, 27 Dec 2004 21:00:49 -0800, Bruce Lane
<SpammersAreVermin@dev.null> wrote:

>In article <sgb1t0l31gc7cn68k34dlftt99jcn9vb9s@4ax.com>,
>Idontwantspam@net says...
>
>> On Sun, 26 Dec 2004 17:01:57 -0800, webberdog@webtv.net wrote:
>>
>> >last saturday of every month 7 am to 11:30 am
>> >THE W6TRW ARC SWAPMEET
>> >Address:http://www.w6trw.com/swapmeet/w6trw_arc_swapmeet.htm
>>
>> Well, now we know when it is.
>>
>> Any guesses on which state?
>
> You must not have:
>
> (1) Visited the web link.
>
> (2) Realized that a '6' call is going to be California.
>
> This particular swap is in Lawndale, CA, southwest of Los Angeles.

1) It does not make sense for me (or anyone) to visit the link of
every one of these in case it is nearby. Posters should realize that
their message is going to people all over the world, and provide some
details.

2) There are a number of hams who have moved since receiving their
license, who keep their original call, so that is not completely
useful for location.

Even so, I hear California is a large place. Just adding "Los Angeles
area" or whatever to the original message would have made it far more
useful for potential visitors.

Happy trails,
Gary (net.yogi.bear)
---
at the 51st percentile of ursine intelligence

Gary D. Schwartz, Needham, MA, USA
Please reply to: garyDOTschwartzATpoboxDOTcom

4339. Free quick easy money Amazing !!!!!!!!!!!!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-28 15:35:11 UTC
From: dl1618@hotmail.com
Message-ID: <1104248111.090261.282650@f14g2000cwb.googlegroups.com>
Source record: 21323

Free quick easy money Amazing !!!!!!!!!!!!
Date: 22 Dec 04

Comments

HOW TO TURN $6 INTO $6,000!!!!!! READING THIS COULD CHANGE YOUR LIFE! I found this on a bulletin board and decided to try it. A little while back, I was browsing through newsgroups, just like you are now, and came across an article similar to this that said you could make thousands of dollars within weeks with only an initial investment of $6.00! So I thought, Yeah right, this must be a scam,but like most of us, I was curious, so I kept reading. Anyway, it said that you send $1.00 to each of the 6 names and address stated in the article. You then place your own name and address in the bottom of the list at #6, and post the article in at least 200 newsgroups. (There are thousands) No catch, that was it. So after thinking it over, and talking to a few people first, I thought about trying it. I figured: what have I got to lose except 6 stamps and $6.00, right? Then I invested the measly $6.00. Well GUESS WHAT!!... within 7 days, I started getting money in the mail! I was shocked! I figured it would end soon, but the money just kept coming in. In my first week, I made about $25.00. By the end of the second week I had made a total of over $1,000.00! In the third week I had over $10,000.00 and it's still growing. This is now my fourth week and I have made a total of just over $42,000.00 and it's still coming in rapidly. It's certainly worth $6.00, and 6 stamps, I have spent more than that on the lottery!! Let me tell you how this works and most importantly, why it works....Also, make sure you print a copy of this article NOW, so you can get the information off of it as you need it. I promise you that if you follow the directions exactly, that you will start making more money than you thought possible by doing something so easy! Suggestion: Read this entire message carefully! (print it out or download it.) Follow the simple directions and watch the money come in! It's easy. It's legal. And, your investment is only $6.00 (Plus postage) IMPORTANT: This is not a rip-off; it is not indecent; it is not illegal; and it is virtually no risk - it really works!!!! If all of the following instructions are adhered to, you will receive extraordinary dividends. PLEASE NOTE: Please follow these directions EXACTLY, and $50,000 or more can be yours in 20 to 60 days. This program remains successful because of the honesty and integrity of the participants. Please continue its success by carefully adhering to the instructions. You will now become part of the Mail Order business. In this business your product is not solid and tangible, it's a service. You are in the business of developing Mailing Lists. Many large corporations are happy to pay big bucks for quality lists. However, the money made from the mailing lists is secondary to

the income which is made from people like you and me asking to be included in that list. Here are the 4 easy steps to success: STEP 1: Get 6 separate pieces of paper and write the following on each piece of paper;PLEASE PUT ME ON YOUR MAILING LIST. Now get 6 US $1.00 bills and place ONE inside EACH of the 6 pieces of paper so the bill will not be seen through the envelope (to prevent thievery). Next, place one paper in each of the 6 envelopes and seal them. You should now have 6 sealed envelopes, each with a piece of paper stating the above phrase, your name and address, and a $1.00 bill. What you are doing is creating a service. THIS IS ABSOLUTELY LEGAL! You are requesting a legitimate service and you are paying for it! Like most of us I was a little skeptical and a little worried about the legal aspects of it all. So I checked it out with the U.S. Post Office (1-800-725-2161) and they confirmed that it is indeed legal! Mail the 6 envelopes to the following addresses:

#1)Randall Hines 22 Stature Dr. Newark
DE 19713

#2) Mike Sharrer 921 West State St. Coopersburg PA 18036

#3) Jeffrey Hyun 17414Stark Ave Cerritos,CA 90703

#4) James Adair the third 22 Over Rd. Feasterville PA 19053

#5) TSR Solutions 15907 Golden Eye CT Parker CO 80134

#6) Daryl L. 6063 Roosevelt Blvd Apt# 216 Philadelphia PA 19149

STEP 2: Now take the #1 name off the list that you see above, move the other names up (6 becomes 5, 5 becomes 4, etc...) and add YOUR Name as number 6 on the list. STEP 3: Change anything you need to, but try to keep this article as close to original as possible. Now, post your amended article to at least 200 newsgroups. (I think there are close to 24,000 groups) All you need is 200, but remember, the more you post, the more money you make! This is perfectly legal! If you have any doubts, refer to Title 18 Sec. 1302 & 1341 of the Postal lottery laws. Keep a copy of these steps for yourself and, whenever you need money, you can use it again, and again. PLEASE REMEMBER that this program remains successful because of the honesty and integrity of the participants and by their carefully adhering to the directions. Look at it this way. If you are of integrity, the program will continue and the money that so many others have received will come your way. NOTE: You may want to retain every name and address sent to you, either on a computer or hard copy and keep the notes people send you. This VERIFIES that you are truly providing a service. (Also, it might be a good idea to wrap the $1 bill in dark paper to reduce the risk of mail theft.) So, as each post is downloaded and the directions carefully followed, six members will be reimbursed for their participation as a List Developer with one dollar each. Your name will move up the list geometrically so that when your name reaches the #1 position you will be receiving thousands of dollars in CASH!!! What an opportunity for

only $6.00 ($1.00 for each of the first six people listed above) Send it now, add your own name to the list and you're in business! ---DIRECTIONS ----- FOR HOW TO POST TO NEWSGROUPS---------- Step 1) You do not need to re-type this entire letter to do your own posting. Simply put your cursor at the beginning of this letter and drag your cursor to the bottom of this document, and select 'copy' from the edit menu. This will copy the entire letter into the computer's memory. Step 2) Open a blank 'notepad' file and place your cursor at the top of the blank page. From the 'edit' menu select 'paste'. This will paste a copy of the letter into notepad so that you can add your name to the list. Step 3) Save your new notepad file as a .txt file. If you want to do your postings in different settings, you'll always have this file to go back to. Step 4) Use Netscape or Internet explorer and try searching for various newsgroups (on-line forums, message boards, chat sites, discussions.) Step 5) Visit these message boards and post this article as a new message by highlighting the text of this letter and selecting paste from the edit menu. Fill in the Subject, this will be the header that everyone sees as they scroll through the list of postings in a particular group, click the post message button. You're done with your first one! Congratulations...THAT'S IT! All you have to do is jump to different newsgroups and post away, after you get the hang of it, it will take about 30 seconds for each newsgroup! **REMEMBER, THE MORE NEWSGROUPS YOU POST IN, THE MORE MONEY YOU WILL MAKE!! BUT YOU HAVE TO POST A MINIMUM OF 200** That's it! You will begin receiving money from around the world within days! You may eventually want to rent a P.O.Box due to the large amount of mail you will receive. If you wish to stay anonymous, you can invent a name to use, as long as the postman will deliver it. **JUST MAKE SURE ALL THE ADDRESSES ARE CORRECT.** Now the WHY part: Out of 200 postings, say I receive only 5 replies (a very low example). So then I made $5.00 with my name at #6 on the letter. Now, each of the 5 persons who just sent me $1.00 make the MINIMUM 200 postings, each with my name at #5 and only 5 persons respond to each of the original 5, that is another $25.00 for me, now those 25 each make 200 MINIMUM posts with my name at #4 and only 5 replies each, I will bring in an additional $125.00! Now, those 125 persons turn around and post the MINIMUM 200 with my name at #3 and only receive 5 replies each, I will make an additional $626.00! OK, now here is the fun part, each of those 625 persons post a MINIMUM 200 letters with my name at #2 and they each only receive 5 replies, that just made me $3,125.00!!! Those 3,125 persons will all deliver this message to 200 newsgroups with my name at #1 and if still 5 persons per 200 newsgroups react I will receive $15,625,00! With an original investment of only $6.00! AMAZING! When your name is no longer on the list, you just take the latest posting in the newsgroups, and send out another $6.00 to names on the list, putting your name at number 6 again. And start posting again. The thing to remember is: do you realize that thousands of people all over the world are joining the internet and reading these articles everyday?, JUST LIKE YOU are now!! So, can you afford $6.00 and see if it really works?? I think so... People have said, &quote;what if the plan is played out and no one sends you the money?

So what! What are the chances of that happening when there are tons of new honest users and new honest people who are joining the internet and newsgroups everyday and are willing to give it a try? Estimates are at 20,000 to 50,000 new users, every day, with thousands of those joining the actual internet. Remember: play FAIRLY and HONESTLY and this will really work.

4340. FA---SET OF 2 ELECTROLYTIC CAPS FOR VALVE AMP. 220uF 400V

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-28 18:08:09 UTC
From: Steve H <g0lmv@yahoo.co.uk>
Message-ID: <41d1a122$1_3@mk-nntp-2.news.uk.tiscali.com>
Source record: 21324

SET OF 2 ELECTROLYTIC CAPS FOR VALVE AMP. 220uF 400V
http://cgi.ebay.co.uk/ws/eBayISAPI.dll?ViewItem&rd=1&item=5741009670&ssPageName=STRK:MESE:IT

Thanks,

Steve H

Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.823 / Virus Database: 561 - Release Date: 26/12/04

4341. FA: Xmttr Rectifier Tubes 807 1625 1006

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-28 21:34:23 UTC
From: tw@emailaccount.com
Message-ID: <d7bc9941.0412281334.58fc5cc4@posting.google.com>
Source record: 21325
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

Lot of 14 transmitting triodes and high voltage gas rectifiers; most
are US military and new in box:

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=5740724953

4342. Re: FET amplifier (theory != measurement)

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-29 20:00:57 UTC
From: Bob Liesenfeld <wb0poq@visi.com>
Message-ID: <41D30CF8.A2878B8@visi.com>
Source record: 21326

[No readable article body recovered]

4343. Invitation

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-29 22:28:24 UTC
From: Goetz <goetz@goetz-von.com>
Message-ID: <cqvb28$fi5$2@titan.btinternet.com>
Source record: 21327

Invitation to join the fastest growing Two Way Radio Forum on the net.

Go to www.euronium.de

The Amateur and PMR Radio Forum.

G&#65533;etz.

4344. Parts for Sale

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-29 22:35:56 UTC
From: Brian - KB9BVN <kb9bvn@arrl.net>
Message-ID: <gjGAd.12130$RH4.2492@newsread1.news.pas.earthlink.net>
Source record: 21328

I have the following surplus parts for sale:

Transistors: 50 for $4.00, or 50 of each kind for $11.00
==========
PNP PN2907A
NPN PN2222A
NPN 2N3904

Capacitors: 50 for $3.00 or 25 of each kind for $12.00
==========
8pf NPO Ceramic
11pf NPO Ceramic
12pf NPO Ceramic
22pf Ceramic
470pf Ceramic
560pf Ceramic
3300pf 100v Ceramic
.01 uF 10% Ceramic
.1 uF (104J) Ceramic

1N4148 Diodes 100 for $2.00
1N4007 Rectifier Diodes (1000v 1A) 50 for $2.00
LM7805ACV 5v Positive Voltage Regulators (TO220) 10 for $2.00

Free US Shipping on orders over $10.00

Otherwise, add $2.00 for shipping.

No Paypal this time. Cash, Check or Money Order

Brian Murrey - KB9BVN
47 Grassy Drive
New Whiteland IN 46184

I can ship overseas, just send me an email with shipping info and I will get
you the pricing.

--
==========
Agnus Dei, qui tollis peccata mundi, dona nobis pacem.
==========
KB9BVN/QRP QRP-L 1540 QRP-ARCI 10223
39.558 N 86.095 W Johnson Co., Indiana
GRID: EM69WN - Elecraft K1 - Attic Dipole - 5w
Member of the ARRL - SOC #400
FISTS 5695 CC 764 FPQRP #-57
==========

4345. Re: Please check where your replies are going before you post.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-30 10:06:43 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <TqQAd.19618$uj2.9069@clgrps12>
Source record: 21329

Folks - you can also just look at the headers and can tell immediately if it's a forgery:

- posting IP
- path
- user agent

The combination of those three will give each of us a unique I.D. as to our authenticity :-)

For me, it will always read:

- posting IP, though dynamic, always traceable to Telus.net
- Again, will always originate from Telus
- Pan 0.11.2/Unix, there's probably less than 15 people on the entire Telus ISP network that use that combination of Linux/Pan version.

--
Gregg t3h g33k
"Ratings are for transistors....tubes have guidelines"
http://geek.scorpiorising.ca

4346. Re: Please check where your replies are going before you post.

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-30 10:08:35 UTC
From: Gregg <nospam@unknown.org>
Message-ID: <DsQAd.35299$dv1.7185@edtnps89>
Source record: 21330

Behold, Gregg signalled from keyed 4-1000A filament:

Sorry for the messy post, I hate auto wrap!

Let's try that again....

- posting IP, though dynamic, always traceable to Telus.net
- Again,will always originate from Telus
- Pan 0.11.2/Unix, there's probably less than 15 people on
the entire Telus ISP network that use that combination of
Linux/Pan version.

--
Gregg t3h g33k
"Ratings are for transistors....tubes have guidelines"
http://geek.scorpiorising.ca

4347. HHH never went anywhere!

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-31 00:53:05 UTC
From: "O.McDonald" <oeieio@hotmail.com>
Message-ID: <Rp1Bd.12632$d5.108889@newsb.telia.net>
Source record: 21331
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.equipment,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors

Hi all,
I received e-mail this evening telling me that it is nice to have Harry's Homebrew Homepages back again!! They never went anywhere. I know that the number of visitors has declined, but I am still very much alive and kicking.

The URL is http://web.telia.com/~u85920178/

I had assumed that http://web.telia.com/~u85920178/ was so difficult to remember that a few visitors had forgotten me, but over last year I have got a new messageboard at http://amazingforums.com/forum2/SM0VPO/forum.html and introduced a couple of new projects, including a 400mW 88-108MHz PA (works well at 50MHz, 70MHz and 144MHz), and a VHF gain antenna, with calculator, that can be built and tested within about 15 minutes (50MHz to 900MHz - works well on 144-432MHz and 446MHz).

My e-mail address sm0vpo(at)home(dot)se got100's of messages each time I logged on: 95% SPAM. I filled the mailbox and deleted the account from Outlook. After a year of messages bouncing I hope the spammers will have moved on and I can use it again. In the meantime you can write to me on oeieio(at)hotmail.com or the old trusty harryvpo(at)hotmail.com (if the SPAM there continues I may close harryvpo).

New projects for the new year? Yes. Loads of ideas, some already in progress, including:
- Article about static electricity - will include a bit of humour
- Stereo encoder
- Tuneable VHF NBFM Receiver for 145-156MHz
(or any 1MHz chunk from 50MHz to 500MHz)
- Tuneable VHF NBFM transmitter (---ditto---)
- Practical antenna info - how-to, with photo's
- Soldering video (15 minutes VCD) still on the list

BR Harry

4348. Direct conversion + DSP receiver for S-measurements?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-31 03:55:56 UTC
From: tf3kx@simnet.is
Message-ID: <cc4f4620.0412301955.7adb4529@posting.google.com>
Source record: 21332

Hi:

I am looking for a HF receiver (1,8-30 MHz) that I can use to measure received signals and record the measurements into a PC for further analysis. I do own an Icom IC746 that provides S-meter data, but it has several shortcomings.

So, for example, I wonder if there are any new projects or kits around that are based on the R1/R2 direct conversion design, but with the addition of good quality DSP and a DDS oscillator? Something that would give me digitized signals from a "general coverage" box.

Kanga seems to offer an advanced version of the R2, but with an analog VFO and analog AF processing. Any other suggestions or pointers?

73 de Kristinn, TF3KX

4349. Re: Direct conversion + DSP receiver for S-measurements?

Newsgroup: rec.radio.amateur.homebrew
Date: 2004-12-31 07:15:55 UTC
From: NM3R <dj_wang@yahoo.com>
Message-ID: <1104477355.388099.219180@z14g2000cwz.googlegroups.com>
Source record: 21333

Hi OM,
You may be interested in joining these Yahoo groups. It will probably
answer most of your questions.
http://groups.yahoo.com/group/soft_radio/
http://groups.yahoo.com/group/dds-vfo/
http://groups.yahoo.com/group/spectrumanalyzer/
73 de DJ, NM3R

Kristinn Andersen, TF3KX wrote:
> Hi:
>
> I am looking for a HF receiver (1,8-30 MHz) that I can use to measure
> received signals and record the measurements into a PC for further
> analysis. I do own an Icom IC746 that provides S-meter data, but it
> has several shortcomings.
>
> So, for example, I wonder if there are any new projects or kits
around
> that are based on the R1/R2 direct conversion design, but with the
> addition of good quality DSP and a DDS oscillator? Something that
> would give me digitized signals from a "general coverage" box.
>
> Kanga seems to offer an advanced version of the R2, but with an
analog
> VFO and analog AF processing. Any other suggestions or pointers?
>
> 73 de Kristinn, TF3KX